

**PROCUREMENT OF TWO (2) UNITS OF APPROX. 94-METER MULTI-ROLE RESPONSE VESSEL (APPROX. 94M MRRV)  
 BID CLARIFICATIONS AND AMENDMENTS  
 Bid Bulletin No. 1**

**A. AMENDMENTS/INCLUSIONS**

No	Item	Page	Request for Considerations	Amendments
1.	Instruction to Bidders ITB 24.1 and 27.1	1-11 1-12	Can the Bid Submission Date be extended by two weeks' time?	Deadline of Bid Submission is re-scheduled on <b><u>27 August 2019 at 10:00 A.M.</u></b> as amended.  The Technical Bid Opening shall take place on the <b>same date at 10:30 A.M.</b> as amended.
2.	Technical Specifications, Part G (General Part) 101. General Descriptions and Arrangement	G-2	JICA recommends deleting Philippine Navy because 94-m vessels under MSCIP II is intended carry out mandate of Philippine Coast Guard and not of military agencies.	Deleted the word "Philippine Navy"
3.	Contract Conditions PC 10.6	3-11	Additional provisions are acceptable however contractor's obligation to cover "assistance and a maintenance services" shall be deleted because only those defects arising from the design, engineering, materials and workmanship is covered by contractor's obligation during Defect Liability Period.  DOTr is recommended to delete "assistance and a maintenance service"	Deleted the word "assistance and maintenance services to the Employer".
4.	PC 25.2.1	3-17	GC 25.2.1 states that  "Guarantee Test and repeats thereof shall be	GC 25.2.1 reinstated

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			<p>conducted by the Contractor during the Commissioning of the Facilities or the relevant part thereof to ascertain whether the Facilities or the relevant part can attain the Functional Guarantees specified in the Appendix to the Contract Agreement titled Functional Guarantees. The Employer shall provide the Contractor with such information as the Contractor may reasonably require in relation to the conduct and results of the Guarantee Test and any repeats thereof."</p> <p>DOTr is recommended to reinstate GC 25.2.1 as it is deemed consistent and applicable to the project aside from the fact that was applied in the MSCIP I Contract</p>	
5.	PC 39.4	3-31	DOTr is recommended to delete item no. 4 as it is deemed to be one-sided. Any modifications, addition, changes or substitution shall be affected in the cost accordingly.	Deleted "Item No. 4 of PC 39.4"
6.	PC 45.1	3-34	Per DB Guidelines, it should be 28 days after contract effectivity. In case, DOTr intends to establish the DB after the prescribed period, Ad Hoc DB would be more appropriate.	DB shall be an Ad-Hoc Dispute Board to be constituted when dispute arises.
7.	Contract Agreement Appendix 2	3-44	<p>b.) Builder's Risk Insurance</p> <p>Covering physical loss or damage to the Facilities at the Shipyard, up to the delivery of the vessel at the Site of the Employer.</p> <p>JICA recommend that the phrase in red font shall be</p>	Deleted "up to the delivery of the vessel at the site of the Employer".

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		deleted since Insurance during delivery is covered by Cargo Insurance.	
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**B. CLARIFICATIONS**

No.	Item	Page	Technical Specification	Bidder's Queries	Answer
1	Section Technical Specifications 101 General Descriptions and Arrangement	G-1	The vessel shall be a sea-going vessel that must be capable of operating efficiently in open waters and should be primarily designed to operate in Philippine sea areas in accordance with World Meteorological Organization (WMO) Global Wave Statistics. Although the vessel will not normally engage on international voyage, it may, when contingencies require, should be able to operate in sea areas other than the Philippine sea areas. Hull form shall be designed for a minimum frictional resistance and low angle of water entrance at the	We cannot guarantee these items. We understand this description is not guaranteed item.  Please delete this description.	The description is provided as a design guidance. The vessel shall be classified as non-international, however, it may, when contingencies require, operate in waters other than the Philippine sea areas such as but not limited to, US (Hawaii), Japan, China, Middle East/Africa. The vessel must be designed to operate at adverse rough sea condition up to Sea State 6 and shall be designed to at least survive at Sea State 7 (in accordance with WMO Sea State Code) for the vessel to seek refuge.

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			<p>bow and shall allow full ocean-going capability in rough sea and good behavior in open-ocean. The hull of the vessel must be capable to operate at adverse rough sea condition characterize by 4-meters or higher wave height and the vessel should be able to survive at least Sea State 6 or Beaufort Scale 6 or higher. The motion attitude and behavior of the hull must allow safe aviation operations.</p>		
2	Section Technical Specifications 101 General Descriptions and Arrangement	G-2 G-3 G-4	<p>I. Search and Rescue          II. MARITIME SECURITY AND LAW ENFORCEMENT          III. ENVIRONMENTAL PROTECTION          IV. DISASTER RESPONSE / HUMANITARIAN ASSISTANCE</p>	<p>We cannot guarantee the items in this "TASK, CAPABILITIES and PERFORMANCE" table.          We understand this table is not guaranteed item and reference purpose only.</p>	<p>Task, Capabilities and Performance Table is provided as reference or guidance in designing and equipping the vessel. Design of the vessel must correspond to the stated task, capabilities and performance of the vessel.</p>

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				Please delete this description.	
3	Section Technical Specifications 109. Sea Trials 2. Official Sea Trial	G-14	21) Helicopter Launching and Recovery Tests	We cannot provide helicopter (EC145 or equivalent) and helicopter crew and helicopter operation crew by ourselves. We propose the Launching and Recovery test will be carried out at Manila.	Launching and Recovery Tests of Helicopter will be conducted by PCG in Manila during Final Acceptance Test (FAT). PCG shall provide the helicopter, crew, pilot, mechanic and aviation fuel. However, helicopter/aviation facilities except for actual helicopter launching and recovery shall be tested in Japan prior to the delivery at shipyard.
4	Section Technical Specifications 202. Hull Fittings. 1. Anchoring and Mooring	H-8	4) Towing winch, towing bollard and towing rope Towing capacity design should be able to allow the vessel to provide towing assistance to vessel in distress at high sea (sea state 4) at least equivalent size of 94-meter vessel and higher, with sufficient bollard pull capacity.	We will provide towing winch and related equipment for the vessel to operate in distress at high sea, but we cannot guarantee the towing capacity and bollard pull capacity in such a distress sea condition for any size of vessel.	Bollard Pull Test shall be carried out to demonstrate the capacity is satisfied as per the requirement in the technical specifications before delivery of the vessel at shipyard. Manual related to towing equipment and accessories must be provided. As far as possible, shipbuilder shall adopt proven or improved design of the JCG latest

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				Please delete this description.	<p>Kunigami-class vessel in designing the towing winch, towing bollard, towing rope and towing capacity.</p> <p>Actual towing demonstration for the two (2) 94-meter MRRV's will be carried out in the Philippines during the Final Acceptance Tests of the 2<sup>nd</sup> 94-meter MRRV using the other 94-meter MRRV with the assistance of <del>by</del> PCG and JCG or Towing Operator assistance. The PCG shall be responsible for coordinating with the JCG, if in case JCG's assistance would be required. Expenses for the actual towing demonstration including for the towing operator assistance (if required) will be assumed by the shipbuilder.</p>
5	Section Technical Specifications 202. Hull Fittings. 1. Anchoring and Mooring	H-8	4) Towing winch, towing bollard and towing rope Contractor/Shipbuilder	We are shipbuilder, unfortunately we have no experience	Same as above. In addition, Bollard Pull Capacity Calculation shall

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			shall provide valid documentation showing the bollard pull capacity of the vessel. Trainings and Manuals for towing operation shall be provided.	for towing operation. We can provide a bollard pull capacity calculation only. We consider Trainings and Manuals for towing operation should be requested to Japan Coast Guard or the other towing ship services. Please delete this description.	also be submitted to be reviewed and checked by the Consultant. Consultant and Employer's representatives shall attend the Bollard Pull Tests.
6	Section Technical Specifications 202. Hull Fittings. 14. Rescue Boat and Davit	H-16	Two (2) units of high speed rescue boats with two (2) units of crane type davits with damping control or telescopic overhead type davit (as appropriate) for each boat shall be provided at the port and starboard side for the storage, launching, hoisting and recovery of rescue boats.	We understand the technical specification precede against General Arrangement that attached with bid document, However there are no space in general arrangement to fit the two (2) units of 8m rescue boats	Two (2) rescue boats of about 8m length with two (2) cranes for the rescue boats is a mission essential requirement. Shipbuilder must design a vessel that can accommodate this requirement. General Arrangement provided in the bidding docs is for reference only and is intended to be used as a guide by the shipbuilder in coming-up

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				<p>and two (2) unit of crane davit in parallel.</p> <p>We propose to change Two (2) units of 8m rescue boats and two (2) unites of crane davit to One (1) unit of approx. 7.3m rescue boat and One (1) unit of crane davit.</p>	<p>with their own general arrangement drawings accommodating the required technical specifications. Less than 7-meter rescue boat will be considered non-compliant.</p>
7	<p>Section Technical Specifications 202. Hull Fittings.            15. Water Gun and External Fire Fighting Equipment</p>	H-17	Two(2) sets of water gun for...	<p>We do not recommend to mount the additional one (1) water gun. We propose one (1) water gun. The reason are followings,</p> <p>1. The vessel has already three (3) sets of water gun. One water gun on F'cl deck and two</p>	<p>One (1) Water Gun with minimum stream range of 90m shall be installed on the fore part of F'cl deck.            Two (2) Fire Fighting Monitor with minimum stream range of 70m (for water) shall be provided on the compass deck(port and starboard).            As a minimum, one (1) water gun and one (1) fire-fighting monitor (either port</p>



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				<p>remote monitor on compass deck. Remote monitor can be operated as water gun.</p> <p>2. We have no space and cannot arrange the additional water Gun on F'cl deck.</p> <p>3. If necessary simultaneously operation of water gun, pump capacity will be more bigger one.</p>	<p>or starboard) shall be able to be simultaneously operated with their full capacity.</p> <p>Shipbuilder shall provide an arrangement that will accommodate this requirement.</p>
8	Section Technical Specifications 202. Hull Fittings. 16. Helicopter Hangar, Control Room, Helideck and Helicopter Launching Facilities	H-18	Operation manuals on ship-helicopter interface including safe helicopter operations at a given sea states shall be provided.	We are shipbuilder, unfortunately we have no experience for helicopter operation. We cannot provide the designated safe helicopter operation at given sea state.	<p>PCG will provide the Operation Manuals on Ship-helicopter interface including safe helicopter operations.</p> <p>However, shipbuilder shall adopt ship-helicopter interface they have designed or provided in the latest JCG Kunigami-class vessel or its improvement.</p>
9	Section Technical Specifications	H-35	Officer Mess room	We consider that	General Arrangement

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	204. Accommodation 4)Furnishing Schedule-2a		Dining Chair x 17 Sofa x 2 Refrigerator(about 400L) x1 Ice maker x1	the required items mentioned on the left side cannot be physically furnished on the officer's mess room. Please change Dining Chair number 17 to 15 and delete the left mentioned items.	serves as a guide or reference only. The bidder shall review the general arrangement and may propose alternatives in order to accommodate the required technical specifications.
10	Section TechnicalSpecifications 204. Accommodation 4) Furnishing Schedule-2a	H-35	Crew Mess room Dining Chair x 50 Bench type Sofa x 1	We consider that the required items mentioned on the left side cannot be physically furnished on the crew's mess room. Please change Dining Chair number 50 to 42 and delete the sofa.	Same as above.
11	Section TechnicalSpecifications 204. Accommodation 5) Furnishing Schedule 2b(Medical Room)	H-36		There is just one (1) bed is furnished at medical room on General arrangement. There are not enough	Same as above.

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				space to meet your request physically. Please change the specification same as General Arrangement.	
12	Section Technical Specifications 204. Accommodation	H-40	5. Detention Room 6. Sport Room (Gym) 7. Diving Gear Room 8. Marine Environmental Protection Room (MEP Room)	There are not enough space adjacent the survivor room to meet your request physically. Please delete the left mentioned descriptions.	Same as above.  Gym may not be a specific room but an adequate space adjacent to the survivor room where gym equipment could be put or assembled.
13	Section Technical Specifications 302. Main Engine 5. Reduction Gear	M-11	Rotating direction of Starboard : Clockwise propeller when going Port : Anticlockwise	We propose and proceed our proven design as followings, Rotating direction of Starboard : Anticlockwise propeller when going Port : Clockwise  If the direction of propeller rotation	As far as the performance of the vessel can be guaranteed, rotating direction shall be decided by the bidder. The bidder shall also take into consideration that the operating area of the Philippines has a large amount of debris that may damage or affect the propeller rotation.

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				will not be changed from the Employer's Requirement, arrangement of the engine room will not be available.	
14	Section Bid Data Sheet ITB 7.1	1-8	In the fifth line of the paragraph, to read as: "The Employer will respond in writing to any request for clarification no later than 14 days prior to the deadline for submission of Bids, provided that such request is received 35 days before the deadline for submission of Bids".	<p>We would like to request you to extend period for submission of request for clarification.</p> <p>35 days before bidding means less than 1 month from issuance of Invitation for Bid. We are not able to investigate completely this Bidding Documents.</p> <p>Moreover, we may not be able to request clarification to your answers. Therefore please</p>	Deadline for Submission of Request for Clarification from Bidders is extended until 25 July 2019.

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				delete the deadline for request for clarification as same as STANDARD BIDDING DOCUMENTS UNDER JAPANESE ODA LOANS issued by JICA.	
15	Section Particular Conditions PC25.2.4	3-22	<p>4. Method of Acceptance or Rejection</p> <p>The Project Manager or the authorized representative of the Employer, in coordination with the Employer's consultant, shall evaluate the results of the Final Acceptance Tests.</p> <p>Upon completion of the Final Acceptance Test of the vessel at the Site and with the presentation of the documents</p>	<p>Please let us know the difference between "Protocol of Delivery and Acceptance of the Vessel at Site" and "Operational Acceptance Certificate" in this bidding.</p> <p>We consider that both documents are similar and it is not necessary to issue both documents.</p>	<p>To clarify, the "Protocol of Delivery and Acceptance of the Vessel at Site" is the certificate issued by the contractor/ shipbuilder to the Employer within three (3) days upon satisfactory final acceptance tests in Manila (Site), and the Employer's acceptance and signature on the same shall have the effect of transferring the overall control and risk of the vessel to the Employer. While the "Operational Acceptance Certificate" shall be issued by the Project</p>

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			<p>accompanying the Protocol of Delivery and Acceptance of the Vessel at Site from the contractor/shipbuilder (except for the Protocol of Personnel Training), the Project Manager in consultation with the Employer and Employer's Consultant shall issue the Operational Acceptance Certificate of the Vessel to the Contractor within three (3) working days after receipt of such documents.</p>	<p>Therefore, we would like to ask you to read "Operational Acceptance Certificate" as "Protocol of Delivery and Acceptance of the Vessel at Site".</p>	<p>Manager, when upon the Consultant's recommendation, the requirements under the contract agreement including the technical specifications and approved drawings as well as the required "Training at Site" have been satisfactorily achieved or provided by the contractor/ shipbuilder. The Operational Acceptance Certificate shall be issued within three days upon consultant's recommendation to the Project Manager and it shall not be unduly withheld except in cases where in the Project Manager's best judgment, the contractor/ shipbuilder has pending compliance required under the contract which would affect the issuance of the aforementioned certificate. The Operational Acceptance</p>

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					Certificate issued by the Project Manager is a required document, among others, for the 4 <sup>th</sup> Installment Payment under the Payment Schedules.
16	Section ParticularConditions PC25.2.4	3-22	<p>5. Effect of Acceptance</p> <p>The Project Manager's issuance of Operational Acceptance Certificate of the vessel to the Contractor as above provided, shall be final and binding so far as conformity of the vessel to the Technical Specifications and Approved Drawings is concerned and shall be deemed as the acceptance of the vessel by the Employer and shall not preclude the Employer from refusing formal delivery of the Vessel at the Site, if the Contractor complies with</p>	<p>We understand that issuance of Operational Acceptance Certificate is to certify conformity of the vessel to the Technical Specifications and Approved Drawings and also to certify the completion of delivery and acceptance of the vessel.</p> <p>On the other hand, it is described in this clause that the Project Manager's issuance of Operational</p>	Same as above.

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			all the conditions for delivery ass herein set forth	<p>Acceptance Certificate of the vessel shall not preclude the Employer from refusing formal delivery of the Vessel at the Site.</p> <p>The delivery and acceptance of the vessel will be completed at the time of issuance of Operational Acceptance Certificate.</p> <p>Therefore we understand that the sentence of "the Project Manager's issuance of Operational Acceptance Certificate of the vessel shall not preclude the Employer from</p>	



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				<p>refusing formal delivery of the Vessel at the Site" will not be applicable since the Vessel has formally been delivered to the Employer.</p> <p>Please confirm.</p>	
17	Section Technical Specifications 16. Helicopter Hangar, Control Room, Helideck and Helicopter Launching Facilities	H-19	<p>2) Helicopter control room, landing aids and commanding lights</p> <p>Helicopter control room or aviation room shall be arranged, if possible, at center line aft overlooking the helicopter landing deck.</p>	<p>Helicopter control room or aviation room will be required in the specification, however two (2) Rescue boat also required.</p> <p>We would like to shift aviation function to aft part of Wheel house, instead of remove the Helicopter control and aviation room.</p>	<p>The Bidder may propose alternative design/ location of the Helicopter Control Room or Aviation room as far as the required function for the helicopter control, communication, and monitoring can be assured, taking into consideration of the rescue boat and boat davit arrangement, etc., subject to finalization and approval of the Employer during the detailed design stage.</p>

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				<p>Since the CCTV camera with special controller for Helicopter will be fitted aft of Helicopter Hanger, we think its no problem for Helicopter operation.</p> <p>Because of if the rescue boat will be furnished the above the helicopter hanger deck, the room and related antenna will obstacle the smooth boat and crane operation.</p>	

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18	General Arrangement	G-1	Although the vessel will not normally engage on international voyage, it may, when	It is stated that the vessels will go to the sea area other than the Philippine sea	Please refer to Item No. 1.

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			contingencies require, should be able to operate in sea areas other than the Philippine sea areas.	area after the service is started, but please tell us if there is a Sea area that is specifically assumed. Also in that case, we would like to confirm that the vessels are a non-international qualification.	
19	General Arrangement	G-1		Do you think that there is no middle stage and flats around the helicopter for maintenance in helicopter hanger? We would like to confirm the necessity. (In reference general arrangement, there seem to be a door in helicopter hanger that goes hollow. Is that door for vertical ladder?)	General Arrangement attached to the bid document is for reference. The bidder may propose possible plan for the middle stage, and flats around the helicopter for maintenance as long as bidder can assure the vessel's performance and stability, subject to finalization and Employer's approval during the detailed design stage.
20	General Arrangement(Escape route)	G-1		In the current arrangement, for the escape route from the	The General Arrangement in the Bid Documents serves as a guide or reference only. The bidder may propose an alternative

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				<p>section on the stern side under F'CL DECK, it is necessary to go through the inside of the engine room or heli hangar up to the bow side section of FCGL DECK, which will be assumed as the convening place for escape from vessel in emergency case, so please let us confirm whether there is a problem with the escape route or not.</p>	<p>design which would provide optimum performance and safety of crew and vessel, subject to finalization and approval during the detailed design stage.</p>
21	General Arrangement	G-1		<p>When comparing the specification and the general! arrangement, there is no description in the general arrangement such as a Gym described in the specification. In addition, it is stated that 24 foldable chairs are to be arranged in</p>	<p>Please refer to Item No. 9</p>

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				<p>Prayer Room in specification, but it seems impossible to arrange in the space described in the general arrangement. It is difficult to arrange all the rooms and the equipment described in the specifications, so the specifications and general arrangement submitted at the time of bidding will be modified by the shipyard. For details, please make adjustments later on.</p>	
22	General Descriptions and Arrangement	G-1		<p>It seems that the specifications of the vessel's main engine and machineries in engine room are different from our JCG 1000 gross—tonnage type vessels. We recommend a</p>	<p>Main engine should be able to meet the required performance and must have a minimum of 24,000 hours mean time between overhaul (MTBO). The Employer shall select and approve the brand and type of main engine proposed by the bidder during contract negotiation, upon results of the consultant's value engineering/ analysis. The bidder must at least propose two (2)</p>

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				specification based on JFE's main engine adopted by our 1000 gross—tonnage type vessel, but the specification submitted at the time of bidding is based on the tender spec because it is possible for us to cope with either. For details, please make adjustments later on.	type or brand of main engine and auxiliary engine that are compliant with the technical specifications, at the time of the bid. The bidder is allowed to propose alternative specifications provided it is equivalent or superior to the issued technical specifications and the required performance could be achieved, and must be of proven design comparable with the latest JCG Kunigami class vessel.
23	Principal Dimensions	G-5		Please let us know if there are limits (upper limit values) on main dimensions like as the ship length, breadth, draft, total gross tonnage.	There are no upper limits so long as the vessel's required tasks, capabilities, performance as well as safety can be achieved. However, as to length over-all, we suggest upper limit of not more than 100 meters or adoption of the proven or improved version of the latestKunigami-class design.
24	4. Speed, Power and Endurance	G-6	Endurance based on above-mentioned tank capacity	Should we consider only main engine fuel consumption when calculating the Endurance?	Generator consumption is included in calculating endurance, along with main engine fuel consumption. Also water/ fresh water capacity, dry and cold food storage capacity.As far as possible, shipbuilder/

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				Or should we also consider generator consumption? Let us know if there is a specific calculation standard.	contractor should aim for a higher endurance. Specific calculation standard shall be that of the standard used in the latest JCG Kunigami-class vessel built by the shipbuilder/ contractor.
25	7. Landing On-off Helicopters 1) AIRBUS EC145 T2 2) SIKORSKY 5-76C 3) AGUSTAWESTLAND. AW139 4) BELL 412EP	G-8		We would like to confirm that the helicopter written on the left is outside of the shipyard purchasing.  As described below, because there is a description of testing and training of the helicopter, confirmation just in case.	Helicopter will be provided by the Employer, hence outside of shipyard purchasing. Actual helicopter launching and recovery testing will be done in Manila using available PCG helicopter during Final Acceptance Test. However, helicopter facilities/ equipment and machineries including communications and aviation equipment will be tested in the shipyard. All helicopter operational expenses including pilot will be assumed by the PCG. Ship running expenses for the test shall be covered as FAT expenses.
26	103 Classification, Rules and Regulations	G-9	c) Some consideration regulated by Japanese Maritime Rules for this kind of the ship shall be applied, if necessary.	The vessels will be classified by ClassNK, but is it okay for us to understand that the special approval about the specification by Japanese Government	The vessels shall be designed and constructed under the ClassNK rules. Special approval about the specifications by the Japanese Government (JG) to JCG vessels would also be applied, as appropriate.

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				to JCG vessels also could be applied to the plan vessels?	
27	108 Model tank test	G-13	The Contractor/Shipbuilder shall *** in the Philippine Sea Areas of Responsibility.	The specification document states that the Resistance Test and the Self-Propulsion tests will be conducted and in that case, the ship response, taking into account the Philippines' assumed sea area. There is a statement to pay attention to (The motion attitude and behavior), but please tell us about the specific procedure of the test.	Specific Procedures of the Tank tests that explain how to demonstrate or simulate the required conditions shall be submitted as the approval drawing to the Employer and Consultant, and shall be agreed between the Parties prior to the Tank Testing. Shipbuilder/ contractor may adopt specific procedures and tests used in the latest Kunigami-class vessel tank testing subject to discussion between the Parties during the detailed design stage and approval of the Employer. However, as a minimum requirement during tank testing, shipbuilder/ contractor shall simulate Philippine sea conditions as far as possible.
28	2. Official Sea Trial	G-14	(21) Helicopter Launching and Recovery Tests;	It is difficult to confirm the departure and arrival of the helicopter on the vessels in the sea trial or security test in Japan according to	Please refer to Item No. 25.



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				<p>the specification. Usually, the JOG patrol vessels will be confirmed by the shipowner after delivery from shipbuilder. We Understand the confirmation should be conducted by the shipowner.</p> <p>We would like to know how to proceed following terms in the planned vessel.</p> <ul style="list-style-type: none"> <li>(1) Preparation of helicopter</li> <li>(2) Arrangement of the pilot</li> <li>(3) Notification to relevant ministries and agencies</li> <li>(4) Other Needs investigation of procedures.</li> </ul>	
29	110. Vibration and Noise 2. Noise	G-16	Necessary sound insulation and isolation shall be provided so as	The listed IMO rules written in tender specifications are old	New IMO Noise Code (MSC 91/22/Add.1 Annex 1) should be adopted with due consideration of the increase of the weight

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			to keep noise level within the values at normal sea going condition (running at service speed) in accordance with IMO A468 (XII), Code on Noise Level on Board Ships	<p>IMO code. On the other hand, the 1000 gross ton type of JCG has no application of the noise code, and is designed and built according to the internal regulations of the JCG.</p> <p>Please let us confirm the applicable rules for the noise of the planned ship.</p> <ul style="list-style-type: none"> <li>- Is the new IMO Noise code (MSC 91/22/Add.1 Annex 1) issued in 2014 unnecessary for the planned vessels?</li> <li>- Is the old code necessary to apply? (The content is different from the new code)</li> </ul>	of insulations.
30	111. Trim and Stability	G-16	The vessel shall have sufficient and will float at even keel under all reasonable loading	As the vessels are equipped with an auxiliary freshwater tank at the stern side,	As far as possible, design shall be made so the vessel will float at even keel at all loading condition and should avoid undue trim. If even keel could not be

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			condition	it seems to be difficult to keep the even keel (even trim) draft in case of full load condition. Please let us confirm that all reasonable loading conditions described in the left specifically mean design load and half load. Also please let us know if there are restrictions on the trim and heel angle in case of full load.	maintained the limit should be no less than 2-degree trim by stern, subject to Employer's approval during the detailed design stage.  Trim and heel angle used as a proven design of the latest JCG Kunigami-class vessel may be adopted subject to review of the Consultant and approval of the Employer during the detailed design stage.
31	1. Training at Shipyard	G-22	Helicopter operations demonstration shall be provided	It is stated in specification that helicopter operation demonstration will be conducted as shipyard training. But we think that it should be conducted by the helicopter purchase maker.	Shipyard Training does not include helicopter operations.
32	2. Personnel (Crew) Training	G-22		About the technical guidance to the crew	Training program shall be submitted to the Employer/Consultant for approval during the

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	<p>in Employer's Site</p> <p>3. Maintenance Training</p>			<p>in the Philippines, are there any regulations or special requirement for the staff provided by the shipyard?</p> <p>We understand the shipowner will be responsible for maneuvering of the vessels in the local area.</p>	<p>detailed design stage. Shipyard trainer's must be well experienced in their field, and must be able to deliver the training in English language.</p> <p>Risk and control of the vessel including maneuvering belongs to the shipbuilder/contractor until the Project Manager's Final Acceptance of the Vessel at Site (Manila). Maneuvering during Final Acceptance Test shall be controlled by the shipbuilder/ contractor. However, any maneuvering operations in the local area (Employer's country) must be coordinated with the PCG and with presence of the PCG designated crew. PCG shall provide berthing area for the vessels and shall assume customs and port dues (if any).</p>
33	<p>4. Onboard technical familiarization during delivery voyage</p>	G-23		<p>About technical guidance during repatriation, are there any regulations or special requirement for personnel provided by the shipyard?</p> <p>Also, may we be</p>	<p>All PCG members trained crew in Japan will be onboard during delivery voyage. Shipyard will provide its own designated crew as the main crew during voyage. Number of shipyard crew shall be in accordance with its own standard in so far as safety of the vessel and crew can be ensured. Shipyard designated crew must be licensed and have experience in navigating</p>

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				aware that all 27 PCG members trained at the shipyard will be on board during repatriation?	waters from Japan to Philippines as much as possible.
34	1. Ship's Manual	G-26	The Deck manual deals with ***Helicopter Operations***	We believe that the operation manual of the helicopter should be conducted by the helicopter purchase maker.	Helicopter manual is provided by PCG/ helicopter manufacturer.
35	Rudders	H-3	Stabilization Equipment, controlled at the bridge, to reduce the rolling motion of the ship shall be provided.	Since the vessels are equipped with a fin stabilizer, we believe that it is not necessary to use the anti-swing system with steering control for decreasing the ship rolling motion.	Delete "Stabilization Equipment, controlled at the bridge, to reduce the rolling motion of the ship shall be provided."
36	2. Steering Gear	H-10	The electric motor shall be started and stopped in the wheel house, steering gear room and engine room.	We think that only the wheel house and the steering gear room are enough for the motor starting and stop point of the steering pump unit.	The electric motor shall be started and stopped in the wheel house and steering gear room.
37	6. Hydraulic	H-11	For right windlass,	We think that the	Yes. One set for the Port and One set for

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	Pump Unit		21 MPa x 90 liters/min x 2 sets Electric motor, 37 kW x 1, AC 440 V For left windlass, 21 MPa x 90 liters/min x 2 sets Electric motor, 37 kW x 1, AC 440 V	hydraulic pump capacity should be one set for the port side windlass and one set for the starboard side windlass.	the Starboard.
38	6. Hydraulic Pump Unit	H-11	For aviation fuel oil transfer equipment 21 MPa x 80 liters/min x 1 set Electric motor, 30 kW x 1, AC 440 V	We think that air fuel transfer devices will not be used simultaneously with stern mooring device and towing winches. Therefore, if there is no simultaneous use, we would like to combine the pump unit for aviation fuel oil transfer equipment with the system of No. 3 pump unit (for stern mooring device and towing winch)	Independent hydraulic pump unit for aviation fuel oil transfer is required.
39	12. Life Saving Appliances	H-15	Life jacket 71 Rigid or inflatable type Cover-all	The complement is 67 people, but we would like to confirm that 71	The Bidder shall provide 71 (67+4 for VIP) lifejackets. In addition, lifejacket for survivors under

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			Safety/Protective Uniform 71 International Orange color with reflectorized PCG Logo in front and reflectorized "coast guard" characters at the back	life jackets are necessary.	"Search and Rescue Equipment- Lifejacket for adults- 50" shall be provided.
40	12. Life Saving Appliances	H-15	Immersion suits 6 SOLAS 2010; JCG/USCG-type approved	When we look at the rules of the JG category four(4) vessel, we think that the immersion suits needs a capacity of 67 people.	Immersion Suit- 24 units (in line with passenger capacity of rescue boat)
41	14. Rescue Boat and Davit	H-16	Two (2) units of high speed rescue boats with two (2) units of crane type davits with damping control or telescopic overhead type davit (as appropriate) for each boat shall be provided at the port and starboard side for the storage, launching,	On the reference general arrangement, there seems to be one high-speed rescue boat and one davit. We think that it is difficult to arrange two high— speed rescue boat and davit but please let us know if there is a plan for arranging two of	Please refer to Item 6.

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			hoisting and recovery of rescue boats.	the vessels.	
42	15. Water Gun and External Fire Fighting Equipment	H-17	Two (2) units of water gun monitor for fire suppression shall be provided as follows.	According to the specification, two water guns will be equipped on the vessels, but on the reference general arrangement there is only one for F'CL DECK. In case of JCG 1000 gross tonnage patrol vessel, one (1) set is provided.	Please refer to Item No. 7.
43	2) External Fire Fighting Equipment	H-17	b) Foam liquid tank Capacity of foam tank: abt. 5,400 liters	As for the foam liquid tank, please tell us the assumed place or section for the tank location, because the tank capacity is large.	The expected place of the foam tank will be in the fore store on the F'cl deck (Fr. 30) near the FF monitor. General Arrangement provided in the bidding docs is for reference only and is intended to be used as a guide by the shipbuilder in coming-up with their own general arrangement drawings accommodating the required technical specifications.
44	16. Helicopter Hanger,	H-18 H-19		H-18, H-19 in specification, some	Helicopter Hangar, Control Room, Helideck Fittings, Lights and Helicopter Launching



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	<p>Control Room, Helideck and Helicopter Launching Facilities</p> <p>3) Helideck fittings</p>	H-20		<p>facilities about helicopter operation for achieving the purpose are abstractly stated as following. Ex.) To ensure the possibility of day and night helicopter operations, the vessel should be equipped with a helideck platform, hangar, landing aids and associated equipment.</p> <p>In H-20 page 3) Helideck fittings, there is no specific description of what kind of equipment we shall provide.</p> <p>Although there is a sentence "the following fittings and equipment shall be provided as a</p>	<p>and Recovery Facilities were mainly adopted from the 83.6 Meter Offshore Patrol Vessel from France. We will provide the shipbuilder with access to the OPV, including its general arrangement, hangar design and accessories (landings aids/ lights/ fittings, etc.) during the detailed design stage.</p> <p>The bidder is allowed to propose an alternative provided it is equivalent or superior and of proven design comparable or similar with the latest JCG vessels with hangar, subject to Employer's approval during the detailed design stage.</p>

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				<p>minimum', only 5 items are listed and there is no description for shutters etc. where proper nouns appear on H18, p.19."</p> <p>We would like to know the detail specification about the helideck fittings.</p>	
45	16. Helicopter Hanger, Control Room, Helideck and Helicopter Launching Facilities	H-18	Crash landing locker with complete tools and equipment required in case of emergency or crash landing of helicopter due to accident onboard shall be provided.	<p>"Crash landing seems to be fuselage landing in emergency case, but please tell us what "kind of crash landing locker" is. Complete tools and equipment have special equipment and please tell us the detailed specification of them when the shipyard should supply them.</p>	<p>This item refers to Helicopter Crash Rescue Locker Package with standard equipment as follows;</p> <p>Adjustable wrench (1), Large Rescue Axe (non wedge or aircraft type) (1), Bolt Cutters (1), Large Crowbar (1), Grab Hook (1), Heavy Duty Hacksaw with six spare blades (1), fire resistant blanket (1), ladder (two piece) (1), lifeline (15m in length 5 mm circumference) plus rescue harness (1), Side cutting Pliers (Tin Snips) (1), Set of assorted screwdrivers (1), Harness Knife &amp; Sheath (4), Man-made Mineral Fibre (MMMF) Filter Masks (4), fire resistant gloves (4 sets), Power cutting tool (1). Detailed specifications shall be provided</p>

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					during detailed design stage.  Please see attached sample picture of Helicopter Crash Locker.
46	16. Helicopter Hanger, Control Room, Helideck and Helicopter Launching Facilities	H-18	Contractor/Shipbuilder should provide details on how the helicopter will be move and traversed from hangar to flight deck (vice-versa) safely at all stages of ship motion (in accordance with Ship Motion Index).	Is it acceptable for you to adopt shipyard's standard design with respect to helicopter transportation between helideck and hanger because there is no transportation rail and winch on GA.	Yes.
47	16. Helicopter Hanger, Control Room, Helideck and Helicopter Launching Facilities	H-18		There is no maintenance crane for helicopter on deck. Please add specification if rescue boat davit is used for helicopter maintenance as well.	Rescue boat davit can be used not only for boat but general use, including maintenance for helicopter if possible.
48	16. Helicopter Hanger, Control Room, Helideck and Helicopter	H-18	1) Helicopter Hanger	There is no ceiling crane for helicopter maintenance in hanger. If you need it, please add the	Bidder may propose ceiling crane for helicopter maintenance if it could be accommodated in their design, subject to approval of the Employer during the detailed design stage.

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	Launching Facilities			specification for it.													
49	16. Helicopter Hanger, Control Room, Helideck and Helicopter Launching Facilities	H-18	1) Helicopter Hanger Fixed helicopter hanger shall be provided. Helicopter hanger shall be designed as to safely store and lash the one EC145 Eurocopter through manual operations, with applicable safety regulations.	Please let us know the specification of EC145 - Principal particulars (size, weight) - Is the blade foldable? (if not, it is impossible to store EC145 in hanger)	Blade of EC145 is foldable. <b>DIMENSIONS</b> <table border="1"> <tr> <td>Length</td> <td>13.64 m</td> </tr> <tr> <td>Height</td> <td>3.95 m</td> </tr> <tr> <td>Main rotor diameter</td> <td>11.0 m</td> </tr> </table> <b>MAIN CHARACTERISTICS</b> <table border="1"> <tr> <td>MTOW (within the AGW flight envelope up to 3,800 kg)</td> <td>3,700 kg</td> </tr> <tr> <td>Useful load</td> <td>1,781 kg</td> </tr> <tr> <td>Sling capacity</td> <td>1,600 kg</td> </tr> </table> Please refer to the attached EC 145 Specifications.	Length	13.64 m	Height	3.95 m	Main rotor diameter	11.0 m	MTOW (within the AGW flight envelope up to 3,800 kg)	3,700 kg	Useful load	1,781 kg	Sling capacity	1,600 kg
Length	13.64 m																
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50	16. Helicopter Hanger, Control Room, Helideck and Helicopter Launching Facilities	H-18	1) Helicopter Hanger Slipping preventing net, rubber mat	With regard to the Slipping Preventing Net, we understand the "Net" is mentioned as nonslip paint for helicopter landing deck. Is it correct? If not, please let us know the detail. Also, please let us know the purpose of rubber mat in hanger.	Yes, it refers to nonslip paint for helicopter landing deck and hangar which the shipbuilder/ contractor shall provide. This is in addition to helideck guardrails with nets. Rubber Matt shall be used to soak up drips, spills, splatters, and clean-up oil based spills.												
51	16. Helicopter Hanger, Control Room,	H-19	2) Helicopter Control Room, Landing Aids and Commanding Lights	Please let us know the overview of the following items. 2)	Please refer to Item No. 44.												

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	Helideck and Helicopter Launching Facilities		Deck edge lights, Reference lights, Heading and obstruction lights, Flight deck status lights (stop/go lights), Homing beacon light, Stabilized horizon bar, Glide Slope indicator	Helicopter control room, landing aids and commanding Deck edge lights, Reference lights, Heading and obstruction lights, Flight lights deck status lights (stop/go lights), Homing beacon light, Stabilized horizon bar, Glide Slope indicator	
52	4) ROV	H-23	Control System Controller: Joystick Controller at the bridge or as appropriate	Please accept to adopt a portable joystick controller for operation on deck, not in wheel house.	Accepted. But it must also provide live video output at wheelhouse and briefing room in addition to other requirements stated in technical specifications.
53	5) Search and Rescue Equipment, etc.	H-23	Line throwing apparatus	With respect to line throwing apparatus, we understand it as line throwing apparatus for "LIFE - SAVING"	Yes.  However, in addition, shipbuilder/ contractor shall provide two (2) units for each vessel pneumatic line thrower/ gun for deployment of lines during port berthing operations.
54	1. Painting	H-28	Outside of shell plating and rudder; Below full load waterline EP x 2 SP x 2	Life time of "Below full load waterline" to be two (2) years as same as anode. Is it OK?	Lifetime of below full load waterline painting shall be minimum of three (3) years or as proven used in the latest Kunigami-class vessel built by the shipbuilder, whichever is

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					higher.
55	1. Painting	H-29	Inside of hull: Living spaces, where not lined EP x 1 AR x 2 Living spaces, where lined EP x 1 Engine room, side and deckhead EP x 1 AR x 2 Engine room, bottom EP x 1 Other machinery spaces, side & deck head EP x 1 AR x 2 Other machinery spaces, deck EP x 1 AR x 2 Stores, side & deck head EP x 1 AR x 2 Stores, deck EP x 1 AR x 2 Battery room EP x 2 AR x 2 Inside of rudder EP x 1	With respect to the accommodation's walls and ceilings which are not covered by lining or fire insulation, we would like to adopt aqueous coating material as prime/finish coating for environmentally responsible, not EP+AR.  Also, where mentioned AR as finish coat, please accept oily coating material instead of AR as finish coat.	Bidder is allowed to propose his alternative provided it is equivalent or superior and of proven design mainly adopted from the latest JCG-Kunigami class vessel, subject to Employer's approval during the detailed design stage.
56	1. Painting	H-29	Inside of tanks, Fuel oil tanks EP x 2	There is some possibility of peeling of paint which is soaked in oil so that we would like to paint	The bidder is requested to paint as per the specifications and find the appropriate paint inside the FO tank. Nonetheless, Bidder is allowed to propose his alternative provided it is equivalent or superior and of proven

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				upper wall and ceiling area which are not soaked in oil.	design mainly adopted from the latest JCG-Kunigami class vessel, subject to Employer's approval during the detailed design stage.
57	2. Cathodic Protection	H-30	Impressed current cathodic protection (ICCP) shall be provided and suitable number of bolted type aluminum anodes shall be fitted to suitable position such as sea chest, bow thruster tunnel, etc.	In the Japan Coast Guard patrol vessels, the ship's corrosion protection is performed with an aluminum anode. Please replace the installation of impressed current cathodic protection (ICCP) and check if it is possible to Impressed current cathodic protection (ICCP) shall be carry out hull corrosion protection with an aluminum anode. This is because it is thought that the aluminum anode will be advantageous in consideration of the arrangement of	The bidder can propose alternative provided it is equivalent or superior and a proven design mainly adopted from the JCG Kunigami class vessel, with due consideration to the marine environmental condition in the Philippines, subject to Employer's approval during detailed design stage.

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				consumables after services and the handling in case of trouble.	
58	2. Piping Material	H-42	Sea water/sewage pipe: Stainless Steel Bilge pipe: Stainless steel Foam fire extinguish pipe: Stainless steel	It is mentioned that piping material should be used stainless steel for "sea water/sewage pipe", "Bilge pipe", "Foam fire extinguish pipe". Please let us know the grade of stainless steel, for example, SUS304,SUS316L etc. because we adopt steel + "inner polyethylene lining" for prevention of corrosion of pipe due to sea water.	We prefer SUS316 since the lining may be damage by heat during repair work. Nonetheless, the bidder is allowed to propose alternative provided it is equivalent or superior and of proven design mainly adopted from the JCG Kunigami class vessel, with due consideration to the marine environmental condition in the Philippines, subject to Employer's approval during detailed design stage.
59	Marine growth preventor Ultrasonic type	M-7		Please let us know what is "Ultrasonic type" and its specification	The bidder is requested to propose alternative provided it is equivalent or superior and of proven design mainly adopted from the JCG Kunigami class vessel, with due consideration to the marine environmental condition in the Philippines, subject to Employer's approval during



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					detailed design stage.
60	Heat exchangers	M-8		It is not mentioned "heat source. We would like to adopt electrical heat not steam. Is it OK?	Electrical heat will be adopted as heat source.
61	The speed and power of the vessel shall have a general overall load factor of not greater than 50%	M-10		Please let us know how to calculate "general overall load factor"	In the selection of the main engine, the bidder shall consider the mean time between overhaul (MTBO) of at least 24,000 hours with the average load factor of 50% of MCO in accordance with the calculation of the engine manufacturer/maker. We advise bidder to coordinate or checked with the engine manufacturer/maker.
62	7. Stern Tube	M-17		Please let us know the reason why stern tube should be filled with lubricating oil. (in a view of our experience, water lubricating is enough)	Lubricating oil is our proposal however, the bidder is allowed to propose alternative provided it is equivalent or superior and of proven design mainly adopted from the JCG Kunigami class vessel, with due consideration to the marine environmental condition in the Philippines, subject to Employer's approval during detailed design stage.
63	Fuel Oil Service Tank Fuel Oil Settling Tank	M-8 M-27		There is no Fuel oil service tank and Fuel oil settling tank on GA although they are	FO service tank in the double bottom is acceptable. The bidder is allowed to propose alternative provided it is equivalent or superior and a

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				mentioned in machinery part. It is very difficult to allocate fuel oil service tank which is needed abt. 27m <sup>2</sup> if it complies Japan Government rule. Please let us know your basic concept for Fuel oil service tank.	proven design adopted from the JCG Kunigami class vessel, subject to Employer's approval during detailed design stage.
64	3. Power Supply Equipment for Aviation	E-6	One (1) Power supply equipment for starting helicopter engine shall be provided as follow. Input A.C., 440 V 60Hz 3 $\phi$ Output D.C. 24 V. 800A	We understand that output D.C. is not 24V but 28V. Please let us know which is correct.	Battery installed on EC145 is 24V DC, however, please provide the battery as per the specification of the EC145.
65	Charging & Discharging Board For Helicopter Storage Battery	H-18 E-6		Is "Charging & Discharging Board for Helicopter Storage Battery" used for only EC145 Eurocopter?	Yes.
66	4. Television Receiver and DVD Player	E-9	Four (4) sets of 55-inch color television receivers, DVD players, media players, etc. shall be installed in the	What is "etc." meaning? Please clarify it. With respect to video system, is it OK to adopt NTSC	Etc. means Sound System. Based on DICT, the Philippines is now migrating to Japanese-standard Integrated Services Digital Broadcast – Terrestrial. Hence, we should adopt ISDB-T standard

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			officer's mess room, crew's mess room, survivor's room, and rest space in accordance with the furnishing schedule.	type?	for TV. NTSC Standard is now being phased-out in Japan and Philippines. Shipbuilder shall check compatibility during contract implementation.
67	Electric Lighting 1. General	E-10	For lights including projectors at f'cle deck aft (from Fr. 125 to aft end) shall be of anti-explosive type if they are within 3.0m above maximum draft.	Is this sentence meaning all of electric equipment should be anti-explosive type? It is mentioned only lights	Anti-explosive lighting apparatus is only required for that equipment installed winch deck in after part, under 3 meters height from the water line for the occasion of oil contingency operation. Nonetheless, bidder can propose alternative provided it is equivalent or superior and a proven design adopted from the JCG Kunigami class vessel, subject to Employer's approval during detailed design stage.
68	Electric Lighting 1. General	E-10	Control system for lightings shall be provided at the bridge	Is this sentence meaning that control system which can turn on/off all light in ship should be applied at the bridge? With respect to Japan Coast Guard Specification, only exposed lights (including search lights) could be	Exposed lights including search lights shall be controlled at the Bridge. Nonetheless, bidder can propose alternative provided it is equivalent or superior and a proven design adopted from the JCG Kunigami class vessel, subject to Employer's approval during detailed design stage.

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				control at the bridge.	
69	10. Searchlight and Projector	E-11	One (1) 4 kW searchlight of xenon type mounted on stabilizer with remote control at radar mast One (1) 2 kW searchlight of xenon type on bridge deck aft	Is 2 kW searchlight "hand operation" type? It is mentioned 4 kW type is with remote control	One (1) 2kW searchlight of manually controlled xenon type shall be rearranged on higher deck.If the one (1) 2kW searchlight can be made remotely controlled at the bridge by the bidder without extra cost, we accept. The bidder can propose alternative provided it is equivalent or superior and a proven design adopted from the JCG Kunigami class vessel, subject to Employer's approval during detailed design stage.
70	17. Obstruction Lights for Aerial 19. Lighting and Gas Detector for Aviation	E-13		With respect to lights mentioned in 17 & 19, is it acceptable for using same lights which applied with Patrol ship with Helicopter of Japan Coast Guard?	Yes, bidder is allowed to propose alternative, if it is of proven use or improved design in the latest Kunigami-class vessel, subject to Employer's approval during the detailed design stage.
71	2. Automatic Exchange Telephone System	E-14	One (1) set of automatic exchange telephone system operated on A.C., 240V and D.C., 24V shall be installed for intercommunication among the following	We understand that A.C. is not 240V but 220V (for inboard power source). Please let us know which is correct.	AC shall be of 220V.

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			spaces		
72	4. Sound Power Telephone System	E-16	Accommodation Spaces: One each	Please let us know the specification of telephone system used in accommodation spaces. (now, only mentioned "one each')	Accommodation Spaces refer to accommodation rooms, survivor room, mess rooms, medical room, diving gear room (drip proof), and galley. Non-waterproof, wall mounting type, calling bell and call flash light.
73	AR Manual push button	E-18		Although it is described as "AR Manual push button" in the item of the engine room, AR" is guessed that a number will be inserted by mistake, so please teach the number.	AR means "As Required". After the arrangement of each compartment is finalized, number of the Detector shall be finalized as per the requirement of regulations applicable.
74	13. Day and Night Vision Camera	E-20		It is mentioned that "Capable of Radar and ARPA integration" as its characteristics. Please let us know its function clearly.	Radar and ARPA integration only when associated with other equipment, such as Bridge Management System, if applicable. Employer desire to utilize a day and night vision camera that is equivalent or superior with the day and night vision camera installed in the PCG's 83.6 meter offshore patrol vessel.
75	20. Lightning	E-20	One (1) set of lightning	Please let us know	Up to the Bidder as long as the equipment

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	Protection System		protection system shall be installed in the vessel to help protect the vessel from the hazards of lightning strike.	the name and manufacturer of this device.	is of proven use or currently used in Kunigami-class vessel. If none, the bidder may recommend.
76	Explosion proof specification for electric devices in helicopter hanger			With respect to "Explosion proof specification for electrical devices in helicopter hanger, is it acceptable for applying same rules in case of building patrol vessel with helicopter for Japan Coast Guard?	Yes. As per the requirement of class and JCG regulations applicable.
77	501. Facility Management System	S-1	PC based facility management system (FMS) shall be provided for each vessel for planned maintenance system, inventory management and vessel performance data reporting, etc. It shall have an open-architecture,	How many maintenance manuals and inventory should be prepared as data? With regard to equipment, is it enough to install "instruction manuals and inventory lists of finished plans" to the PC?	There is a total of four (4) PC-based FMS System (1 for each vessel, 1 at CG-10 and 1 at CGSSF). PC at CG-10 and CGSSF must have the maintenance manuals and inventory for both vessels, while PC installed at vessel must have its own corresponding manuals and inventory.  -The main requirement is for a PC-based FMS that will be used for: 1) planned maintenance system, 2) inventory

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					<p>management (spare parts management), 3) vessel performance data reporting, and 4) Others, that may be incorporated by the shipyard for optimum usage of PC based FMS.</p> <p>-Finished plans or as-built plans, instruction manuals should be installed in the PC.            -Inventory (list, name/type, numbers, maker, expiry, etc.) of all items or equipment in the vessel must be provided in the PC.</p>
78	Section Technical Specifications 101 General Descriptions and Arrangement	G-2	As to vessel design, in order to minimize technical risks and level of uncertainty, the Employer may consider to accept an <u>existing Japan Coast Guard (JCG) similar-type/class proven</u> and widely-used vessel design, subject to such modifications with respect to the Employer's technical and performance	<p>We recognize that this vessel will be designed based on classification society rule.</p> <p>Please note we are not in a position to disclose the JCG rules.</p>	Noted.

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			requirements that should be met or applied by the Contractor/Shipbuilder as required in this technical specifications.		
79	Section Technical Specifications  4. Speed, Power and Endurance	G-5	Maximum speed on <u>light load of the deadweight</u> at 100% MCO with no sea margin	We understand "light load of the deadweight" means just "light ship" that designated in 102.6 Loading Condition.	Correction under the technical specifications: "light ship", shall be changed to "light load".
80	Section Technical Specifications  4. Speed, Power and Endurance	G-5	Cruising speed on <u>full load of the deadweight</u> at 30% MCO with no sea margin	We understand "full load of the deadweight" means just "full load" that designated in 102.6 Loading Condition.	Yes.
81	Section Technical	G-7	(4) <u>Light ship</u>	We understand "light ship" means "light load".	Please refer to Item No. 79.



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	Specifications  6. Loading Condition				
82	Section Technical Specifications  6. Loading Condition	G-8	Water in ART : <u>100%</u>	We understand ART is filled up "Operation load". "Operation load" is determined after design of ART.	Yes.
83	Section Technical Specifications  6. Loading Condition	G-8	3) " <u>(4)Light ship condition</u> " is the definition by the Employer only for reference.	We understand "(4) Light ship condition" is "light load condition" and sea trial condition that designated in 109. Sea Trials.	Please refer to Item No. 79.
84	Section Technical	G-8	As a minimum, design load of helideck platform and hangar should be able to accommodate the <u>maximum-take-off</u>	Please clarify maximum-take-off weight with a margin for heavy landing conditions/ factor of designated	The heaviest helicopter contemplated to be accommodated in the helideck is the AW 139 with a Gross Weight of 7,000 KGS. It is required that the helideck should be designed to accommodate safe landing and take-off of the listed helicopter models (EC 145, S-76C, AW 139 and Bell 412EP) with

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	Specifications  7. Landing On-off Helicopters		<u>weight</u> of the heavier helicopter listed below with a margin for heavy landing conditions/ factor of safety: 1) AIRBUS EC145T2 2) SIKORSKYS-76C 3) AGUSTAWESTLAND .AW139 4) BELL 412EP	Helicopter.  We understand the helicopters (except EC145) cannot accommodate the hangar in the point of view for floor area.  There is a conflict with the description of H-18 16.1).	allowance for heavy landing conditions or factor of safety. For calculation of allowance for heavy landing conditions or factor of safety, the shipbuilder should refer to the standard used in JCG vessels as they have designed or delivered.  For hangar, only EC145 T2 is required to be accommodated.  For reference, please see attached helicopter model comparisons and EC 145 Dimensions and Specifications.
85	Section Technical Specifications 107. Inspection and Tests	G-12	1. Inspection Schedules 1) Kick-Off Meeting and Tank Testing at shipbuilder's country( <u>once for both vessels</u> )	We understand as following; "once for both vessels" mean "only one time for this project".	As far as possible, kick-off meeting and tank testing should be made only one time for this project (within 5 working days in Japan). However, if the contractor/shipbuilder would require more than once, then it is acceptable.
86	Section Technical	G-12	7) The date required by PCG  During such <u>critical works inspection</u> , contractor/shipbuilder shall provide office	We understand the critical works inspection is not including in "7) The date required by PCG".	Yes, not included in "the date required by PCG".  Sample of critical works are: Installation of major vessel machineries, fitting and welding of major sections of the vessel to form one major part, fitting and welding of steel hull to aluminum superstructure, and

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	Specifications  107. Inspection and Tests		space and accommodation at/near the Shipyard (with internet and office accessories), meals, insurance and transportation within Japan, to the designated Employer's representatives, while Employer/end-user shall provide for the roundtrip airfare and daily allowances.	Please let us know the sample of the critical work	such other critical works as may be agreed between the parties. Critical works period shall be presented by the shipbuilder/contractor during the detailed design stage.
87	Section Technical Specifications  108. Model Tank Test	G-13	The Contractor/Shipbuilder shall consider scenario simulating Philippine sea conditions at varying wave amplitudes and frequencies ( <u>seastates</u> , local salinity, displacement, sea temperature) to determine the vessel's	Sea state cannot be simulated with tank test.  Please delete this "sea state" description.	Please refer to Item No. 10.

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			real-life seagoing behavior, during the aforementioned tests.		
88	Section Technical Specifications  108. Model Tank Test	G-13	Model Tank Testing shall be carried out in the presence of the Employer's representatives (DOTr and PCG), <u>classification society</u> and consultant.	Model Tank Testing is not inspection item by classification society. So no certificate will be issued from Class.  Please delete this "classification society" description.	We delete "classification society".
89	Section Technical Specifications  109. Sea Trials	G-13	2. Official Sea Trial For progressive speed trial, the trial shall be carried out under the <u>light load of 100%deadweight</u> to confirm the guarantee speed.	We understand "light load of the 100% deadweight" means just "light ship" that designated in 102.6 Loading Condition.	Please refer to Item No. 79.  Guarantee Speed shall be performed on light load condition.
90	Section Technical Specifications		19) External and Internal Communication Tests	HF Communication System with Encryption confirmation etc.	External and Internal Communication Equipment shall be tested in Japan, however, HF Communication System with Encryption confirmation tests will be carried out in the Philippines.

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	109. Sea Trials 2. Official Sea Trial	G-14		<p>With regard to above item, we propose it is necessary to make confirmation in Philippine in a same manner as MSCIP Phase I.</p> <p>For your reference, please note that it is not able to make confirmation of this equipment in Japan due to restriction by the laws.</p>	
91	Section General 110.Vibration and Noise 1.Vibration	G-16	<p>Measurement of vibration shall be carried out on wheel house, accommodation, <u>engine room</u> and local element to confirm that undue vibrations do not occur.</p>	<p>According to ISO6954-2000, three different classification areas are presented:          Classification A; passenger cabin          Classification B; crew accommodation areas          Classification C; working area</p>	<p>"Engine Room" is changed to "Engine Control Room". However, design, arrangements and installation must take into consideration the avoidance of excessive vibration beyond the acceptable normal limits in accordance with applicable class or JCG or Japan Government rules if there is any.</p>

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				Engine room is not applied for above three classification. We propose to change engine room into engine control room.	
92	Section Technical Specifications  110. Vibration and Noise	G-16	2. Noise  Necessary sound insulation and isolation shall be provided to keep noise level within the values at <b>normal sea going condition(running at service speed)</b> in accordance with IMO A468 (XII), Code on Noise Level on Board Ships.	We understand the "normal sea going condition (running at service speed)" means Continuous service output(CSO).	Service Speed shall be approx. 18 Knots.
			Contractor/Shipbuilder shall provide damage control plan to include how damage control	We understand Contractor/Shipbuilder shall provide "Damage control	Yes. However, bidder can adopt the damage control plan of the latest Kunigami class vessel provided it is equivalent or superior and appropriate to the vessel,

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93	Section  Technical Specifications 111. Trim and Stability	G-17	and de-flooding will be conducted effectively and its methodology during the detailed design stage. Equipment, tools, etc. for damage control shall be provided.	plan" which is satisfied with only classification rule.	subject to the approval of the Employer during detailed design.
94	Section General  112. Plans and Drawings 1. Plans and Drawings for Approval	G-18	3D CG image for G/A, <u>typical officer's cabins</u> and wheelhouse shall be provided for the discussion with the Employer with the respective approval documents/drawings.	Please clarify how many officer's cabin we will make 3D CG.  And We understand the Helicopter 3D CG is not included.	VIP cabin, CO Cabin, 2 Officer Cabin (1 male, 1 Female). However, the bidder is strongly encouraged to provide 3D CG image of other sections of the vessel in accordance with its capacity, in order to facilitate detailed design and drawings approval.  Helicopter 3D CG not included.
95	Section Technical Specifications  112. Plans and Drawings	G-18	2. Final Drawings and Instruction Manuals  ....., in hard copy as well as in electronic copy in <u>CD-ROM and USB device</u> .	Please clarify how many CD-ROM and USB device do you require.	Minimum of 5 each for each vessel.
	Section		Training lessons shall	Please let us know	During Training at Site (Manila). But if original equipment manufacturer can

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96	Technical Specifications  119. Training and Familiarization for each Vessel	G-20	be made in English. Contractor/Shipbuilder shall provide <u>local counterpart Trainer's</u> .	where we provide The local counterpart Trainer. We understand we will provide the trainer only in Employer's site training stage.	provide Filipino counterpart in Japan, we will accept.
97	Section Technical Specifications  119. Training and Familiarization for each Vessel	G-21	1. Training at shipyard  If possible, helicopter operations demonstration shall be provided.	We cannot provide helicopter operations demonstration.	Please refer to Item No. 3.
98	Section Technical Specifications	G-21	1. Training at shipyard  Six (6) persons from MRG Four (4) persons from CGWCEISS	Please let us know what kind of training MRG and CGWICEIS personnel attend. Can we think of the	Training of MRG and CGWCEISS shall be mainly focused on corresponding mission and functions of MRG and CGWCEISS. Training should be aimed at acquiring practical knowledge and skills to undertake operations, repair and maintenance of the corresponding equipment and machinery,



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	119. Training and Familiarization for each Vessel			same training as Ship's Crew?	based on the function and mission of the said units. MRG for Maintenance and Repair Group (onshore), CGWCEISS- for radio-communications, electronics and information systems. Bidder shall propose its Training Program subject to discussion between the parties and approval by the Employer during contract negotiation and/or detailed design stage.
99	Section Technical Specifications 119. Training and Familiarization for each Vessel	G-23	5. Training Courses  i. All aspect of ship's handling or maneuvering ii. Onboard handling training such as RHIB, Windlass and mooring winch, Bow-thruster, Steering gear, External fire fighting, Air- conditioning, Main engine, Generator, Pumps, Fresh water generator, Communication and navigation equipment	We understand left mentioned training will be attended by all crew designated in 119.1	Training at Site will be attended by the entire crew. They will be grouped or divided into deck, engine, communications, bridge/navigation, as appropriate, to attend to a specific training based on their onboard competence or assignment. Training Program including number of crew for each specific training, as proposed by the bidder, will be finalized between the parties and approved by the Employer during contract negotiation and/or during detailed design stage.

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100	Section  Technical Specifications  119. Training and Familiarization for each Vessel	G-23	5. Training Courses  iii. Special Training focusing on periodical inspection, maintenance, troubleshooting (tools/hand and software), etc., on Main engine, Main generator, controllable pitch propeller (CPP), Communication and Navigation equipment, Air operation equipment, Decompression Chamber, ROV, BMS and Facility Management System at Contractor/Shipbuilder's site, respective manufacturer's shop and the Employer's Site, as applicable.	Please clarify how many crew will attend left mentioned each special training.	Bidder shall propose minimum number in his Training Program, with due consideration on the manning requirements of the vessel, specific crew functions or onboard assignment, and standard number of personnel required to man a specific equipment or operations based on applicable JCG standard or as required in the Kunigami class vessel, subject to discussion between the parties and Employer approval during contract negotiation and/ or detailed design stage.

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			In addition, extensive training for overhauling of Main Engine and CPP shall be conducted		
101	Section Technical Specifications  119. Training and Familiarization for each Vessel	G-23	5. Training Courses  iv. ECDIS (Electric Chart Display and Information System) in conformity with IMO model course	Please clarify how many crew will attend left mentioned each special training.	Please refer to Item No. 100.
102	Section Technical Specifications  119. Training and Familiarization for each Vessel	G-23	5. Training Courses  v. Bridge Resource Management (BRM) and Computerized Maintenance System.	Please clarify how many crew will attend left mentioned each special training.	Please refer to Item No. 100.
103	Section General 121.	G-26	1. Ship's Manual 2. Maintenance Manual	We would like to	Yes, we confirm. In addition, manual provided by the selected

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	Documentation			confirm the "ship manual" means not the manufacturer's manual, but the general instruction manual specific of this vessel about Deck part and Engineering part.	equipment manufacturer/ supplier shall also be furnished to the end-user by the shipbuilder/ contractor once available or until vessel delivery at shipyard.
104	Section Hull Part  19. Armament Foundation	H-6	Type of <u>future armaments and systems</u> shall be discussed during the design stage. Such installation may be subject to Japan government approval.	The prospective armament is not clarify, so it cannot be decided reinforcement area. Please let us know reinforcement area and strength roughly.  We understand future armaments related equipment and design will be change order item.	Future armaments, related equipment and design will not be a change order items.  Thus, Bidder shall adopt in his design and general arrangement the latest JCG Kunigami class vessel design with respect to the type of future armaments and systems and the corresponding reinforcement area and strength. Bidder shall take into consideration in the design the future requirement for space and power for future armaments and systems, on a fitted for but not with (FFBNW) concept. Final details to be discussed and agreed between the parties during the detailed design stage.
	Section Hull Part	H-30	1.Painting	We propose the paint of fresh	We shall adopt the proven or improved design or specifications from the JCG latest

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105	203.Painting and Cathodic Protection		Fresh water tanks: MEPx2	water tank is solvent free type epoxy x one (1) coat.	Kunigami class vessel provided by the shipbuilder.
106	Section Hull Part 203.Painting and Cathodic Protection	H-30	2.Cathodic Protection <u>The life time of ICCP</u> and anodes shall be two(2) years or more.	We understand the life time of ICCP does not exist. Please delete the description.	Please refer to Item No. 57.
107	Section Hull Part 203.Painting and Cathodic Protection	H-30	3.Electrolytic and Galvanic Corrosion Protection  In addition to ICCP, appropriate <u>equipment for Electrolytic and Galvanic Corrosion</u> must be installed.	Please clarify "equipment for Electrolytic and Galvanic Corrosion".	Please refer to Item No. 57.
108	Section Technical Specifications 202. Hull Fittings.	H-14	5 kg powder type for accommodation and wheel house and briefing room <u>x 15</u>	5 kg powder type fire extinguisher number is so small. We understand necessity number will be decided according to Class Rule.	Number, type and arrangement to be decided in accordance with the class or applicable JCG rules.

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	13. Internal Fire Fighting System				
109	Section Technical Specifications  13. Internal Fire Fighting System	H-16	Fireman's outfit 10 sets	The class requirement of the fireman's outfit are two (2) sets. The box of fireman's outfit is 850mm x 450mm x 500mm. We have no space to outfit this boxes to the vessel.  Please decrease the number to ten(10) to two (2) of this item for fitting.	10 sets fireman's outfit is mission essential equipment for safety of crew and damage control considering the size of vessel and increasing trends of marine accidents in the Philippines involving ship-related fire. General Arrangement serves as a guide or reference only. The bidder shall review the general arrangement and may propose alternatives to accommodate the required technical specifications.
110	Section Technical Specifications  202. Hull Fittings. 14. Rescue Boat and Davit	H-16	Each Rescue Boat is equipped with  :One pilot console and pilot seat; <u>hard points</u> and mount at fore and aft part.	Please tell us the specific reaction force that acts on the hard point.	To be discussed during detailed design stage, but shipbuilder/ contractor should prepare the fore and aft hard points and mount at the rescue boat.

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111	16. Helicopter Hangar, Control Room, Helideck and Helicopter Launching Facilities	H-18	To ensure the possibility of day and night helicopter operations, the vessel should be equipped with a helideck platform, hangar, landing aids and associated equipment. Vessel and helicopter launching and recovery facilities shall be designed and supplied to allow for <u>helicopter operations up to sea state 4 (WMO sea states) in Philippine sea areas.</u>	<p>We consider that it is difficult to operate under sea state 4. Because, there isn't arresting system. So, the helicopter has to free landing.</p> <p>It is impossible moving the helicopter without towing winch.</p> <p>Please delete this description.</p>	<p>Ship-helicopter interface or operations based on the design of the latest JCG vessel with hangar delivered by the shipbuilder is acceptable.</p> <p>Bidder is required to provide his standard design and equipment for the helicopter to be moved and traversed from hangar to flight deck (vice-versa) safely, similar or equivalent with the JCG standard for vessels with hangar and helideck.</p>
112	Section Technical Specifications 202. Hull Fittings. 16. Helicopter	H-18	The helideck platform, associated equipment and landing aids may be designed <u>using Japanese Coast Guard norms and standards</u> similar or equivalent to the standards used for the	Although we refer to Japanese Coast Guard norms and standards similar or equivalent to the standards used for the PCG's offshore patrol vessel, We recognize that this	Please refer to Item No. 44.

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	Hangar, Control Room, Helideck and Helicopter Launching Facilities		PCG's offshore patrol vessel.	vessel will be designed based on classification society rule.  Please let us provide PCG's helicopter operation standard.	
113	Section  Technical Specifications  202. Hull Fittings. 16. Helicopter Hangar, Control Room, Helideck and Helicopter Launching Facilities	H-18	1) Helicopter Hanger	There is no description about "folding Kit" that is used for folding Helicopter blade.  Please confirm above kit is necessary or not.	To be supplied by the helicopter manufacturer.
	Section  Technical Specificat		4) Refueling equipment for helicopter Aviation	We understand that the specification of this pump is as reference. We	Yes. However, shipbuilder should adopt as far as possible refueling equipment that is of proven use or adopted from JCG vessels with hangar and helideck, subject to



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114	ions  202. Hull Fittings. 16. Helicopter Hangar, Control Room, Helideck and Helicopter Launching Facilities	H-20	fueltransferpump	understand we will decide said specification after detailed design and propose by approval drawing.	Employer's approval during the detailed design stage.
115	Section Technical Specifications  202. Hull Fittings. 16. Helicopter Hangar, Control Room, Helideck and Helicopter Launching	H-21	5) Fire-fighting appliances	We consider its necessary to fit following equipment for hanger according to Class Rule. - Foam monitors x2sets - Hose reel for portable foam nozzle x 2sets - Foam sprinkler x10sets  And We also consider its necessary for additional special	Necessary. However, shipbuilder should adopt as far as possible equipment and design that is proven or adopted from JCG vessels with hangar and helideck, subject to Employer's approval during the detailed design stage.

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	Facilities			<p>pump for fire-fighting monitor, because lot of seawater will be necessary for this monitor.</p> <p>Please confirm the said equipment is necessary.</p>	
116	<p>Section Technical Specifications</p> <p>202. Hull Fittings.</p> <p>17. Equipment for Surveillance, Search and Rescue, etc.</p>	H-22	2) Self breathing diving equipment	<p>The following items are not described in this specification.</p> <ul style="list-style-type: none"> <li>- Diving computer</li> <li>- Hooded Vest</li> </ul> <p>Please confirm the said equipment is necessary or not.</p>	<p>Diving Computer and Hooded Vest (5 sets each) shall be additional supply by the contractor/ shipbuilder. Specifications shall be the type supplied by the shipbuilder for latest JCG Kunigami class vessels or equivalent.</p>
117	Section Technical Specification	H-	3) Diving platform	<p>We understand it should be fitted the temporary or fixed vertical ladder for</p>	<p>Bidder shall propose similar diving platform as the JCG Kunigami class vessel or the 44-meter PCG MRRV, subject to finalization and Employer's approval during the detailed</p>

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	ions  202. Hull Fittings. 17. Equipment for Surveillance, Search and Rescue, etc.	23		Diving platform.	design stage.
118	Section Technical Specifications  17. Equipment for Surveillance, Search and Rescue, etc.	H-23	4) ROV  It shall be designed to <u>withstand strong currents and rough sea.</u>	Please clarify specific condition about left mentioned description.	Bidder shall propose based on proven design or improvement from the latest JCG Kunigami class vessel or its equivalent, subject to Employer's approval during the detailed design stage.
119	Section Technical Specifications  17. Equipment for Surveillance,	H-23	ROV Main Cable	There is no mention of ROV cable reels. Please let us know how to recovery the cable. Is it possible to recover by human power?	ROV Cable Reels for deployment and recovery shall be provided by the shipbuilder/ contractor. Shipbuilder/ contractor to propose based on proven design or improvement from the latest JCG Kunigami class vessel or its equivalent, subject to Employer's approval during the detailed design stage.

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	Search and Rescue, etc.				
120	Section Technical Specifications  17. Equipment for Surveillance, Search and Rescue, etc.	H-23	4) ROV	Please clarify specific storage of the ROV and related equipment (Power unit and cable etc.)	Shipbuilder/ contractor to propose based on their proven design or improvement from the latest JCG Kunigami class vessel or its equivalent, subject to Employer's approval during the detailed design stage. Issued GA is for reference or design guidance only.
121	204. Accommodation 3. Furnishing Schedule: 1) Furnishing Schedule-1a	H-33	Water fountain for potable water from the vessel's freshwater generating system shall be provided where appropriate (bridge/ wheelhouse, dining areas, galley, survivor room, medical room, MEP room, etc.).	Water purified by fresh water generator is not suitable for beverages and cooking. If the water will be drunk, it is common to equip a mineral injection device to sterilize and adjust minerals. The purified water is not completely	To clarify, it is required that Water fountains with sterilizer in identified areas in the vessel shall be provided by the shipbuilder/ contractor. One filter w/sterilizer will be fitted in FWT. 1M3 FW tank for drink will be filled from FWG (reverse osmosis membrane type capable of generating minimum of 15 tons/ day). Bidder may propose additional design and equipment necessary to sterilize and purify the potable or drinking water, subject to Employer's approval during the detailed design stage.

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				disinfectable, so we do not recommend from point of view for health.	
122	Section Technical Specifications 204. Accommodation 6) Furnishing Schedule-3a		Wheel House	There are no description about Lavatory at wheelhouse. On the other hand Lavatory is located aft left part of wheelhouse on General arrangement.  Please clarify which is correct.	Bidder shall propose a design with lavatory at wheelhouse or a design adopted from the latest JCG Kunigami class vessel, subject to finalization and approval of the Employer during the detailed design stage.
123	Section Technical Specifications 204. Accommodation 10. Briefing Room	H-41		There are no description about Briefing Room on General arrangement. We understand Briefing room is located aft left part space of wheelhouse.	General Arrangement provided in the bidding docs is for reference only and is intended to be used as a guide by the shipbuilder in coming-up with their own general arrangement drawings accommodating the required technical specifications.
			Fresh water	Please let us	Estimates vary, but each person uses about

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124	Section Technical Specifications 205. Deck Piping, Etc.  3. Fresh Water Service Piping	H- 43	generatorx1  Reverse osmosis membrane type Can generate a minimum of 15 tons/day and <u>must be capable of supplying the crew (threetimes the daily normal requirement) with enough allocation for bathing, drinking,washing clothes, lavatories etc.</u>	provide how many capacities the one crew consume water averagely. We cannot judge the Fresh water generator capacity 15 tons/day meet your requirement or not.	80-100 gallons (302 to378 liters) of water per day. Bidder shall propose a design to accommodate said capacity as far as possible, subject to Employer's approval during the detailed design stage.
125	Section Technical Specifications  301. General Description & Particulars	M-2	3) Main and auxiliary diesel engines  >Max. exhaust gas pressure after the main engine turbo charger shall be <u>less than 3 kPa.</u>	Max. gas pressure after the main engine turbo charger are depend on engine manufacturer. We would like to propose you change said value to "more than 3kPa".	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
	Section		Mainair compressor 2 sets	We understand that the specification of	The bidder may propose an alternative design or system which is equivalent or

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126	Technical Specifications  301. General Description & Particulars 4. Particulars of Machinery in Engine Room	M-4	Double-stage, air cooled, driven by electric motor through belts  abt. <u>80m<sup>3</sup>/h (piston displacement) x 2.5 MPa</u> El. Motor <u>30 kW</u>	main air compressor is as reference. We understand we will decide said specification after detail design and propose by approval drawing.	superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
127	Section Technical Specifications  301. General Description & Particulars 4. Particulars of Machinery in Engine Room	M-4	Capacity : <u>400cc/st</u> <u>x</u> <u>2.5MPa</u> Driving: <u>Manual operation</u>	We understand that the specification of emergency air compressor is as reference. We understand we will decide said specification after detail design and propose by approval drawing.	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
	Section Technical Specifications		Low-temp. reserve cooling fresh water pump 2 sets	We understand that the specification of this pump is as reference. We	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of

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128	ions  301. General Description & Particulars 4. Particulars of Machinery in Engine Room	M-5	Electric motor driven, horizontal, centrifugal <u>625 m<sup>3</sup> /h × 0.25 MPa</u> <u>El. motor 65 kW</u>	understand we will decide said specification after detail design and propose by approval drawing.	proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
129	Section Technical Specifications  301. General Description & Particulars 4. Particulars of Machinery in Engine Room	M-5	Main cooling sea water pump 2 sets  Electric motor driven, horizontal, centrifugal <u>650 m<sup>3</sup> /h × 0.2 MPa</u> <u>El. motor 55 kW</u>	We understand that the specification of this pump is as reference. We understand we will decide said specification after detail design and propose by approval drawing.	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
	Section Technical Specifications		Waste oil transfer pump 1 set	We understand that the specification of this pump is as reference. We	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of



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130	ions  301. General Description & Particulars 4. Particulars of Machinery in Engine Room	M-6		understand we will decide said specification after detail design and propose by approval drawing.	proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
131	Section Technical Specifications  301. General Description & Particulars	M-6	Stern tube lubricating oil pump	The Employer's requirement for stern tube cooling system is lubrication oil system. However, the engine room is so narrow and there is no enough space to install stern tube lubricating oil pump.  Please approve to adapt sea water lubricating type for propeller shafts and stern tubes in addition the stern	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.

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				tube lubricating oil system.	
132	Section Technical Specifications  301. General Description & Particulars	M-6	Bilge Transfer Pump Electric motor driven, horizontal, piston <u>2 m<sup>3</sup>/h × 0.25 MPa</u> <u>El. motor 1.5 kW</u>	We understand that the specification of this pump is as reference. We understand we will decide said specification after detail design and propose by approval drawing.	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
133	Section Technical Specifications  301. General Description & Particulars	M-6	CPP lubricating oil pump	These pumps particulars are depending on cop manufacturer. We understand we propose you said particular on manufacturer recommendation after detail design.	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
			Clean bilge transfer pump for CPP room 1 set	Since there is only a few sea water leakages from	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications

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134	Section Technical Specifications  301. General Description & Particulars	M-7	Electric motor driven, horizontal, centrifugal 0.5 m <sup>3</sup> /h × 0.25 MPa El. motor 0.75 kW	mechanical seal ring on the shafts, we would like to propose to remove clean bilge system with pump. The leakage of sea water from seal ring will be transferred by bilge transfer pump for engine room. Therefore, this pump will be not necessary.	taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
135	Section Technical Specifications	M-7	Fueloilpurifier 2 sets  Type and capacity shall be decided by the Builder considering his detail design result.	We would like to propose to apply fuel oil filter system instead of fuel oil purifier due to the reasons below.  1 The engine room is so narrow and there is no enough space to install fuel	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage. GA is for reference only.

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	ions  301. General Description & Particulars			oil purifier.  2 Fuel oil purifier is mainly used for oil-water separation. We think marine diesel-light oil is clean enough compare to heavyoil. Therefore, it is not necessary to install fuel oil purifier for marine diesel-light oil.  3 We propose fuel oil filter system with auto back washtype.	
136	Section Technical Specifications	M-7	Lubricatingoilpurifier set  1  Type and capacity shall be decided by the Builder considering his detail design result.	We would like to propose to apply CJC filter system instead of lubricating oil purifier due to the reasons below.  1. The engine room	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.

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	301. General Description & Particulars			is so narrow and there is no enough space to install lubricating oilpurifier.  2. CJC filter system has for good maintainability.	GA is for reference only.
137	Section Technical Specifications  301. General Description & Particulars	M-7	Ventilating supply fan for engine room 4 sets  Electric motor driven, <u>axialflow 900/450 m3/min×400/100 Pa, Reversible El. motor 15/3kW</u>	We understand that the specification of fan is as reference. We understand we will decide said specification after detail design and propose by approval drawing.	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
138	Section Technical Specifications	M-8	Heat exchangers	We understand that the number and specification of heat exchanger is as reference. We understand we will	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the

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	301. General Description & Particulars			decide said specification after detail design and propose by approval drawing.	shipbuilder, subject to approval by the Employer during the detailed design stage.
139	Section Technical Specifications  303. Shafting & Propeller 7. Stern Tube	M-17	The space between the shaft and the stern tube shall be filled with lubricating oil supplied from the stern tube lubricating oil transfer pump.	Same question as Line 71	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
140	Section Technical Specifications  303. Shafting & Propeller	M-16		There is no description about shaft grounding device. Is there really no request to equip to vessel?	Shipbuilder/ contractor to propose shaft grounding device similar or proven use in the latest JCG Kunigami class vessel, subject to Employer's approval during detailed design stage.
	Section Technical Specifications	M1		We would like to propose the following pump for attachment and	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of

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141	ions  304. Electric Generator Sets 2. Prime Movers of Main Diesel Generators Sets	9 M2 0		accessories. The reason is same as Line 84  cooling sea water pump 1	proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
142	Section Technical Specifications  305. Compressed Air System 2. Main and Emergency Air Compressors	M2 1	Piston displacement: about <u>80</u> m <sup>3</sup> /h F.A. Delivery pressure: <u>2.5-3.0</u> MPa Driving motor: <u>30</u> kW	Same question as Line 66	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
143	Section Technical Specifications	M2	Capacity: <u>400cc/st</u> <u>x</u> <u>2.5MPa</u> Driving:	Same question as Line 67	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest

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	305. Compressed Air System 2. Main and Emergency Air Compressors	2	<a href="#">Manual operation</a>		Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
144	Section Technical Specifications  306. Cooling Water System 4. Fresh Water Cooling System for Generator Engines	M-24	High temperature cooling system shall be of system as cooling air cooler and jacket inside by fresh water circulated by cooling fresh water pump of generator engine. Temperature for high temperature cooling system shall be controlled by fresh water through temperature regulating valve of generator engine supplied by low temperature fresh water cooling system.	Please confirm we will apply sea water cooling system for generator instead of High and low temperature cooling system due to the reasons below.  1 The engine room is so narrow and there is no enough space to install said system.  2 The system is proven design.	HTCFW for M/E Jacket, and LTCFW for Gen Engine and Auxiliaries shall be investigated during detailed design stage as primary request prior finalizing.  Nonetheless, the bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
			6. Purifying System	We would like to	The bidder may propose an alternative



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145	Section Technical Specifications  307. Lubricating Oil System 6.Purifying System	M- 26		propose to apply fuel oil filter system instead of fuel oil purifier due to the reasons below.  Same Question as Line 136	design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
146	Section Technical Specifications  308. Fuel oil System 4.Purifyin g System 7. Fuel Oil Purifier	M- 27 M- 28	4. Purifying System 7. Fuel Oil Purifier	We would like to propose to apply fuel oil filter system instead of fuel oil purifier due to the reasons below.  Same Question as Line 135	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
	Section		The sea chests shall be installed in the bottom of the engine room, and <u>high sea chest</u> shall be provided	High sea chest is required in this paragraph, however, we would like to propose to delete	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the

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147	Technical Specifications  306. Cooling Water System 5. Sea Chests	M-31	additionally for the operation in shallow water.	description of high sea chest.  The draft of this MRRVs will not be drastically changed in any condition. In addition, the high sea chest may be clogged by surface plastic garbage.  They are the reasons why we recommend not to install high sea chest.	shipbuilder, subject to approval by the Employer during the detailed design stage.
148	Section Technical Specifications  312. Miscellaneous 2. Funnel	M-32	<u>One (1) outer funnel</u> shall be fitted on center line of the hull as shown on the General Arrangement, subject to detailed design finalization by the builder.	Please clarify One (1) out funnel... is miss description. Two (2) out funnel... is correct.	Two funnels. Nonetheless, The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.

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149	Section Technical Specifications 312. Miscellaneous 11. Fire Extinguishing Appliances & Emergency Devices	M-34	"Emergency stop buttons for the fuel oil service pump, fuel oil transfer pump, LO transfer pump, LO stand-by pump for CPP, <u>sludge pump</u> , and the ventilating fans shall be so arranged as to be operated from outside of the engineroom."	We understand sludge pump is not necessary to be installed.	If the design provides that there is no direct discharge to the shore, emergency stop switch button for sludge pump is not necessary, subject to Employer's approval during the detailed design stage, with due consideration whether the same is of proven use or equivalent or improvement of the latest JCG Kunigami class vessel.
150	Section Technical Specifications 313. Tools & Outfits 2. Outfits	M-36	Chain block each 2 <u>1 ton</u>	There is a conflict in description of chain block capacity.  "4. Lifting Gear & Engine Room Hatch (M-33)" : ~ with a chain block of 0.9 ton capacity, ~  Please clarify correct capacity (0.9ton or 1	To be 1.0 Ton, but dependent on the load of main engine manual requirement and safety considerations. The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.

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				ton).	
151	Section Technical Specifications  313. Tools & Outfits	M-36		There is no description about Bangkok Strainer. We would like to confirm said item is necessary or not. If necessary, please clarify how many number of Bangkok Strainer.	Necessary. Good for 3 years operation for both vessels or in accordance with the Planned Maintenance System.
152	Section Technical Specifications  401. General 1. General Description	E-1	Appropriate provision for <u>darken ship</u> during patrol in critical areas shall be provided.	Please advise meaning of "darken ship"	Darken ship- condition where all the ship's external lights are extinguished, and all inside lights are prevented from being seen from outside. Shipbuilder to adopt JCG standard for darken ship.
153	Section Technical Specifications	E-3	Where cables pass through watertight decks or bulkheads, <u>watertight cable glands</u> shall be fitted.	There are various type of cable glanding method and it will be decided based on the location of cable	Yes, depending on the type of penetration. As much as possible, shipbuilder/ contractor should adopt proven design of JCG Kunigami vessels.

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	402. Cables & Cable Installation 2. Electric Cable Installation			glanding. Therefore, we also would like to adopt cable coaming covered with putty according to location.	
154	Section Technical Specifications  402. Cables & Cable Installation 2. Electric Cable Installation	E-3	Cables led in cargo spaces or other spaces, where danger of mechanical damage is expected, shall be adequately protected by sheet steel plating or by steel conduit pipes.	We understand that only the cables in cargo spaces are required to be protected by sheet steel plating or by steel conduit pipes.	Should include <u>other spaces</u> where danger of mechanical damage is expected, in accordance with the rules and JCG latest Kunigami class vessel standard.
	Section Technical		The emergency generator shall be of the following particulars and <u>its capacity shall</u>	We would like to confirm the emergency generator will be used as a	Bidder is requested to propose alternative that is of proven design, equivalent or superior, or mainly adopted from the latest JCG Kunigami-class vessel or in

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155	Specifications  403.Electric Power Source 2. Emergency Generator	E-4	<u>be sufficient for supplying necessary power when the Vessel lie at anchor:</u>	harbor generator or not. The designated specification does not meet the rule requirement. The capacity of the generator needs to be increased.	accordance with the rules requirement, subject to Employer's approval during the detailed design stage.
156	Section Technical Specifications  403.Electric Power Source 3. Shore Connection Box	E-4	Connectors between each cable shall be provided for <u>150m(100+50) and 200m(100+50+50) length.</u>	Generally, it is danger to use connected shore power cables (e.g. cables of 100m+50m). It may causes electric shock on rainy days. Can we propose to provide long seamless shore power cables to avoid such electric shock incident.	150 Meters cable shall be seamless/continuous. While specs of 200 Meters cable (100m+50m+50m) shall remain.
	Section Technical		(1) General use battery Voltage and Capacity approx. <u>D.C., 24V x200AH</u>	We understand the capacity of batteries as reference. We understand we will	Yes, the capacity of the batteries shall be finalized after detailed design as per the rules requirement. The bidder may propose an alternative design or system which is

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157	Specifications  403. Electric Power Source 6. Storage Batteries	E-5	(2) Emergency generator starting battery Voltage and Capacity approx. <u>D.C., 12V or 24V x 80AH</u>	decide said capacity based on selected equipment in machinery part and Classification Rule at detail design phase.	equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
158	Section Technical Specifications  404. Switchboards & Distribution Boards 2. Charging & Discharging Board for	E-6	(1) For General Use Storage Battery shall be installed in wheelhouse.  (2) For Helicopter and Rescue Boat Storage Battery  The particulars shall be finalized as per the requirement of each equipment.	(1) We understand the specification of charging and discharging board as reference. We understand we will decide said specification based on selected equipment in machinery part and Classification Rule at detail design phase. We plan to integrate charging and discharging panels with emergency switchboards and install them in the	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.  Please check also the specification of EC 145.

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				<p>emergency generator room.</p> <p>(2) Please provide us the battery type, capacity and maintenance procedure of helicopter(EC145).</p>	
159	404. Switchboards & Distribution Boards 2. Charging & Discharging Board	E-6	A charging and discharging board for general service storage battery of dead-front independent type shall be installed in wheel house.	<p>We believe, It is better to put the emergency switchboard and the charging board on the same board.</p> <p>And the board should be installed in emergency generator room.</p>	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
160	404. Switchboards & Distribution Boards	E-7	Emergency stop switch ( Engine part , accommodation part and deck part each one)	<p>Please let us know What does the emergency stop of the deck part stop?</p>	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the



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	5. Wheelhouse Concentrated Board				shipbuilder, subject to approval by the Employer during the detailed design stage.
161	Section Technical Specifications  405. Power Motors	E-7	1.Motors  Electric motors shall be provided with the electric space heater where installed on weather deck or wet spaces.	Because manufacturers do not have space heater for their standard small capacity fan.  If the specification will be applied for small fan, the fan's cost will increase.  We propose not to apply the electric space heater for the small capacity fan.	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
162	Section Technical Specifications  407. Electric Lighting 10. Searchlight	E-11	One(1) 4 kW searchlight of xenon type mounted on stabilizer with remote control at radar mast.	Please confirm the stabilizer means two (2) axis stabilizer as same as MSCIP Phase I.	Yes, confirmed.

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	and Projector				
163	Section Technical Specifications  407. Electric Lighting 10. Searchlight and Projector	E-11	One(1) 2 kW searchlight of xenon type on bridge deck aft. Two(2) 1,000 W Sodium Halogen projectors on funnel aft.	Please let us know the purpose of the searchlight and projector. If you intend to use them for helicopter operation, we propose their location to be changed to top of helicopter control room or neighborhood.	The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
164	Section Technical Specifications  407. Electric Lighting 10. Searchlight and Projector	E-11	Two(2) 1,000 W Sodium Halogen projectors on funnel aft.	Please clarify Sodium or Halogen.	It will be high pressure sodium halogen light, or similar/ equivalent with the latest JCG Kunigami class vessel, is allowed.
			2 - Masthead light of single type	1. The single type	Noted.

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165	Section Technical Specifications 407. Electric Lighting 14. Navigation Lights and Indicator Panel	E-12	1 - Port side light with red lens, of single type 1 - Starboard side light with green lens, of single type 1 - Stern light of single type 2 - Anchor light of single type	lights do not meet the classification rule, so some navigation lights type shall be changed to the double type.  2. Please let us know the type of the light which you intend to use (the bulb type or LED type).  For your reference, please note that LED type is much expensive than bulb type.	Bidder is requested to propose the design and specifications of the latest JCG Kunigami class vessel, on the type of light, subject to Employer's approval during the detailed design stage. Nonetheless, we inform bidder that LED is preferable.
166	Section Technical Specifications	E-	Each light shall be of fixed type and fed from the A.C., / D.C., 24V power source and controlled by a navigation light	We understand this vessel has emergency generator and the light power supply should be fed via	Noted and as per class requirement, the lights power need to be supplied in case of emergency.  Nonetheless, the bidder may propose an alternative design or system which is

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	ions  407. Electric Lighting 14. Navigation Lights and Indicator Panel	12	indicator installed in the wheelhouse.	emergency generator.  We propose the above description to be changed to "Each light shall be of fixed type and fed from the A.C. power source and controlled by....."	equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
167	Section Technical Specifications  407. Electric Lighting 19. Lighting and Gas Detector for Aviation	E-13	Aviation lights shall consist of deck edge lights, deck surface flood lights, landing line-up lights and forward structure flood light.	Please inform us of your requirement or sample of the aviation light arrangement. If you don't have such requirement or sample, we would like to arrange and propose our idea of the aviation light arrangement.	We will provide the shipbuilder with access to the OPV, including its general arrangement, hangar design and accessories (landings aids/ lights/ fittings, etc.) during the detailed design stage. Nonetheless, the bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel or other JCG patrol vessel with helicopter hangar delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
				We understand the	Yes. The bidder may propose an alternative

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168	Section Technical Specificat ions  408. Internal Communication Systems 7. General Emergency Alarm System	E- 17		quantity of alarm will be changed depend on the type of alarm in detail design progress.	design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer during the detailed design stage.
169	Section Technical Specificat ions  408. Internal Communication Systems 11. Engine Alarm and Monitoring System	E- 18		We understand monitoring system should indicate the information from the equipment related to CPP (Controllable Pitch Propeller) system and each tank level indicator, etc. However, there is no such requirement in this paragraph. Please clarify said item should be indicated or not.	Yes, at least same as the latest JCG Kunigami class vessel, provided for indication and monitoring.
	Section		One (1) set of monitor camera system with	Please clarify the specific recording	Recording time: at least 7 days Pixels: 4K UHD IP Camera for Outdoor (7

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170	Technical Specifications	E-19	<u>recording function</u> shall be installed as follows.	time and pixels.	Units); 2K SHD (1440p) IP Camera for Indoor (8 Units). Day and night capable (colored night vision), IR night vision range minimum of 30 meters, IP66 water rating. Weatherproof (-40 deg. to 50 deg.)
171	Section Technical Specifications  408. Internal Communication Systems 13. Day and Night Vision Camera	E-20	The system shall include high resolution CCD camera and/or thermal imager mounted on a two axis stabilizer, a LCD monitor, a <u>recordingsystem</u> etc.	Please clarify the specific recording time and pixels.	The Employer desire that the Day and Night Vision Camera to be used in the vessel is equivalent or superior to the day and night vision camera installed in the PCG's 83.6 meters offshore patrol vessel. Specific recording time and pixels is already included in the product specifications available at PMO or online.
172	Section Technical Specifications  408. Internal Communication	E-22		We think it is better to install the "The Ship Information Display System" same as MSCIP Phase I, however there are no description about	Function is necessary. The bidder may propose an alternative design or system which is equivalent or superior to the technical specifications taking into consideration whether it is of proven use or improved version of the latest Kunigami-class vessel delivered by the shipbuilder, subject to approval by the Employer.

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	Systems 14. Personal Computer (P.C) Local Area Network System (LAN)			such items.  Please clarify the said function is necessary or not.	
173	Section Technical Specifications  409. Electric Navigation Aids 11. Motor Siren and Air Horn	E-23	Each one (1) set of air horn and <u>motor siren</u> shall be installed on the radar mast, suited for the purpose of the vessel.	We understand that according to the classification rule, piston horn shall be used instead of motor siren and air horn since this vessel are over 75m in length.  Please confirm the said understanding is correct or not.	The bidder shall adopt proven design or use of the latest Kunigami-class vessel delivered by the shipbuilder, with respect to air horn and motor siren.
174	Section Technical Specifications	E-23	<u>ECDIS electronic charts</u> , with initial software subscription for one year upon acceptance in Japan and <u>one set of paper charts for the Republic</u>	Please clarify the required ENC area and paper charts for Republic of the Philippines water.	One (1) set per vessel. ENC area and paper charts should include sea areas encompassing the whole Philippine maritime jurisdiction and its adjacent sea areas including South China Sea/ West Philippine Sea, Philippine Sea including Benham Rise, Taiwan Strait, Malaysia-

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	409. Electric Navigation Aids 12. Electronic Chart Display and Information System (ECDIS) and Dead Reckoning Tracer		<u>of the Philippines waters</u> shall be provided by the Builder.		Philippines-Indonesia boundary areas in the South, and Japan-Taiwan-Philippines shipbuilder identified transit areas for the vessel's delivery voyage, subject to finalization and Employer's approval during the detailed design stage.
175	Section Technical Specifications  409. Electric Navigation Aids 14. Voyage Data Recorder (VDR)	E-24	All the necessary signals by rule requirement shall be linked.	The Classification rule does not specify the necessary signals. We would like to link same signal as MSCIP Phasel.	Should be in accordance with the network capabilities of the equipment, rule requirement and applicable latest JCG Kunigami class vessel standard, subject to Employer's approval during the detailed design stage.
	Section Technical Specificat		The control SW has to support the evaluation of the estimated location of signal emitters/targets and its	We understand that "running-fix method" means application software of Rode & Schwarz.	Technical Specifications shall be observed. Nonetheless, bidder may propose an equivalent or superior design, subject to approval of the Employer during detailed design stage. Bidder is advised to



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176	ions  409. Electric Navigation Aids 15. Radio Direction Finder	E-24	display on the map by using the <u>"running-fix method"</u> . This method should allow an estimation of a target emitter location using a single Direction Finding unit.	However, the said software is only for land base usage.  Can we use same software as MSCIP Phase I triangulation system?	coordinate first with his proposed equipment manufacturer.
177	Section Technical Specifications  409. Electric Navigation Aids 17. Propeller Shaft Revolution Indicator (port and starboard)	E-25		Since Controllable Pitch Propeller System is installed in this vessel, We propose to install propeller pitch angle indicator and main engine revolution indicator instead of propeller shaft revolution indicator.	Noted. Subject to shipbuilder/ contractor presentation and Employer approval during the detailed design stage.
	Section Technical Specificat			We would like to confirm about specification of the Facility Management	The shipbuilder/ contractor should observe specifications listed in the technical specifications for Facility Management System and not solely consider whether it is the same as MSCIP Phase 1 project. Bidder

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178	ions  500 Facility Management System 501 Facility Management System	S-1		System.  We understand that the same software as MSICP I project is required.	may also propose alternative that is similar/ equivalent FMS as that of the latest JCG Kunigami class vessel subject to Employer approval during the detailed design stage.
179	Section Technical Specifications  500 Facility Management System 502 Spare	S-1	Such Recommended Spare Parts shall be good for use for <u>three (3) years operation</u> of the two (2) 94-meter vessels in accordance with the planned maintenance system integrated with the Facility Management System (FMS) of the vessels.	Please clarify the annual planned running hours for Bidder's estimation especially for Main engines and Generators.  Regarding to Main Engine operation hour. We understand Maximum 4000/Hr by one engine that described page M-10.	For Main engine 3,000Hr/year For Gen Engine 4,000hr/year  With plus or minus 10% allowance.
	Section Technical		While Recommended (additional) Spare Parts shall refer to spare parts besides	Please let us know the required spare parts will be included overhaul spare parts	Mainly for consumable spare parts and the parts required for 3 year's operation in accordance with the planned maintenance system to maintain the operational

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180	Specifications  500 Facility Management System 502 Spare	S-1	the Mandatory Spare Parts, that are supplied taking into consideration the <u>planning,environmental, personnel competencies,maintenance and operational requirements ofthe end-user.</u>	that over crew maintenance level or not.	readiness of the vessels, subject to discussion and Employer's approval during contract negotiation and/or detailed design stage.
181	Section Technical Specifications  500 Facility Management System 502 Spare	S-2	Employer shall inform the contractor/shipbuilder of the finaldestinationof the spare parts prior its shipment and prepare accordingly the location for itsacceptance.	Please clarify the final destination of the spare parts warehouse.	Final destination of spare parts shall be in PCG designated warehouse within Metro Manila, Cavite, or Bulacan area. Final confirmed site from the locations listed above, shall be provided 4 months prior expected delivery.
182	Section Invitation for Bid	1-2	A complete set of the Bidding Documents may be purchased by interested Bidders on the submission of a	We would like to request you to provide Bidding Documents in Word and/or Excel format.	Bidder may convert the provided PDF file into a word file. BAC provided bidding documents during the purchase of bid docs, however, shall remain as the official file.

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			written application to the address above, and upon payment of a non-refundable fee of 75,000 Philippine Peso in a form of cash. The Bidding Documents must be purchased during office hours (8:00 A.M to 5:00 P.M) on or before the deadline of the submission of bids.		
183	Section Instructions to Bidder 21.2		<p>The Bid Security shall be a demand guarantee in any of the following forms at the Bidder's option:</p> <p>(a) an unconditional guarantee issued by a bank or financial institution (such as an insurance, bonding or surety company);</p>	<p>We understand that bid security issued by any Japanese bank is acceptable for you.</p> <p>In addition, we understand that for issuance of bid security, Japanese insurance company or bonding or surety company are</p>	<p>Bidder shall observe the listed provisions in terms of requirements for bid security. Since the project is Japan ODA funded, bid security must be in accordance with JICA ODA Procurement Guidelines. Similar bid securing documents observed in MSCIP Phase 1 may also be applied.</p> <p>If the unconditional guarantee is issued by an insurance company or a bonding company located outside the Employer's Country, the issuer shall have a correspondent financial institution located in the Employer's Country to make it</p>

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			<p>(b) an irrevocable letter of credit;</p> <p>(c) a cashier's or certified check; or</p> <p>(d) another security specified in the BDS</p> <p>from a reputable source from an eligible source country. If the unconditional guarantee is issued by an insurance company or a bonding company located outside the Employer's Country, the issuer shall have a correspondent financial institution located in the Employer's Country to make it enforceable.</p>	<p>required to have business with any bank which have a liaison office or branch in Philippines. Please clarify.</p>	<p>enforceable.</p>
			<p>The Bidder shall submit with its Technical Bid</p>	<p>We cannot guarantee the equipment that</p>	<p>Although we recognize that the bidder cannot guarantee the availability of a certain</p>

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184	Section Bid Data Sheet ITB 11.2 (I)	1-8	<p>the following additional documents:</p> <p>Certification from the manufacturer/supplier guaranteeing that equipment/machineries listed in the Appendix 4, to be installed in the vessel, will be <u>available in the market for at least ten(10) years</u> upon expiration of defect liability period.</p>	<p>installed in vessel available in the market for at least ten (10) years.</p> <p>Please delete this description.</p>	<p>equipment in the market for at least ten years upon expiration of DLP, the bidder must, as far as possible, in the selection of equipment maker/ manufacturer take into account that such equipment is of proven use and may be continued to be produce for the market for the next ten years per manufacturer's or maker's standard or presentation to the bidder, and should not be nearing obsolescence.</p>
185	Section Bid Data Sheet ITB 17.2	1-9	<p>In case a bidder is a joint venture, at least one of them shall have a branch/satellite or liaison office in the Philippines that will represent the joint venture with the Employer in contract/project implementation. The Bidder shall identify the</p>	<p>We understand that this part will not applied to in case of single entity bidder. Please clarify.</p>	<p>Provision is clear that it is applicable "in case a bidder is a joint venture" only. However, Employer reserves the option to further discuss and clarify requirements for shipbuilder/ contractor's representation in the Philippines for purposes of contract implementation, during contract negotiation.</p>

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			branch/satellite or liaison office in the Technical Proposal with a "Declaration of a branch/satellite office or a liaison office in Philippines" which is to be signed by the Bidder and the authorized person of the aforementioned branch or liaison office.		
186	Section Bidding Forms Equipment	1-47		Please clarify what the "key facilities" are.  In addition, kindly let us know what "power rating" and "current commitments" are.	Key facilities at least but not to cover Dock, slipway, wharf, cranes, capacity to produce steel plate ton/day.  Power rating described by the equipment supplier/ maker in the given model.  Current commitments or employment of the particular equipment.
	Section Bidding Forms Current Contract		Bidders and each member of a JV should provide information on their current commitments on all	Bidders have a lot of contracts and the value of work for some contracts are not allowed to be	The bidder may present the total contract price as per the quarterly base.

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187	Commitments	1-61	Contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for Contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued, in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.3 (Without Prequalification).	disclosed by the non-disclosure contract condition.  For such contracts, can Bidders avoid to describe the value of outstanding work for each contract, and sum up the outstanding value of such contracts for every quarter? Please confirm.	
188	Section Bidding Forms Specific	1-64	Fill out one (1) form per Contract, in accordance with Section III, Evaluation and Qualification Criteria (Without Prequalification), Sub-Factor 2.4.2(a).	If the customers (Employers) including Japan Coast Guard does not release some information such as the contact amount to the public, Bidders describe such	In that case please describe "no disclosed contract", however, the contract shall be understandable to the Employer, at least.



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	Design and Build Experience			information as "**** non-disclosed data ****" in the form.	
189	Section Particular Conditions PC1.1	3-7	"Operational Acceptance" means that the Vessel encompassed and wholly covered by this contract has been accepted by the Employer at the Site of Employer after satisfactory Final Acceptance Tests; in other words, final acceptance of the vessel in Manila. Operational Acceptance shall be conditioned upon satisfactory Final Acceptance Tests.	We understand that "Operational Acceptance" is able to be read as "Delivery at Site" which please confirm.	Please refer to Item No. 15.
190	Section Particular	3-	PC45.1 The DB Shall be appointed within three (3) months after the	We would like to request you to change this description as below.	DB shall be an Ad Hoc Dispute Board to be constituted when dispute arises.

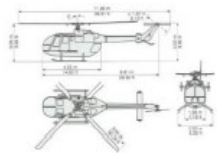
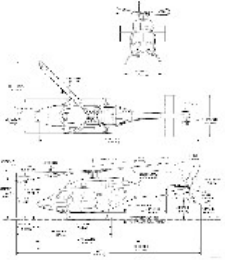




**PROCUREMENT OF TWO (2) UNITS OF APPROX. 94-METER MULTI-ROLE RESPONSE VESSEL (APPROX. 94M MRRV)  
 BID CLARIFICATIONS AND AMENDMENTS  
 Bid Bulletin No. 1**

No.	Item	Page	Technical Specification	Bidder's Queries	Answer
	Conditions PC45.1	34	Effective Date. The DB shall be a DB of three members.	"The DB shall be appointed by the date mutually agreed by the Parties"	
191				After the bidder received the clarification to the questions, can bidder again request further clarification? And are there 2 <sup>nd</sup> pre-bid meeting, if necessary?	Yes, bidder may submit further queries/questions until 25 July 2019. There will be no 2 <sup>nd</sup> Pre-bid Meeting but the bidder can provide questions or clarifications until <b>25 July 2019.</b>
192				If all the costs proposed by bidders exceed the budget, how the bid will proceed?	Bid will proceed in accordance with Guidelines for Procurement under Japanese ODA Loans, April 2012, subject to JICA concurrence.

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## LIST OF HELICOPTER

ADD-(4)

		Bölkow	BELL HELICOPTER	AIRBUS	SIKORSKY	AGUST W.	BELL HELICOPTER
		BO105	Bell 429	EC145C	S-76C	AW139	Bell 412EP
Length, over all	m	11.86	12.70	13.00	16.00	16.66	17.10
Fuselage length	m	8.81	11.73	10.20	13.21	13.53	13.13
Height	m	3.00	4.04	3.96	4.42	4.98	4.00
Rotor diameter	m	9.84	10.97	11.00	13.41	13.80	14.00
Empty weight	kg	1,276	1,925	1,792	3,177	3,622	3,080
Max. takeoff weight	kg	2,500	3,175	3,585	5,306	6,400	5,390
Crew	p	2	1	2	2	2	2
Passenger	p	4	6	8	12	15	13
Maximum speed	kts	131	155	145	155	167	140
Cruising speed	kts	110	150	133	155	165	122
Range	nm	310	390	370	411	573	529
							

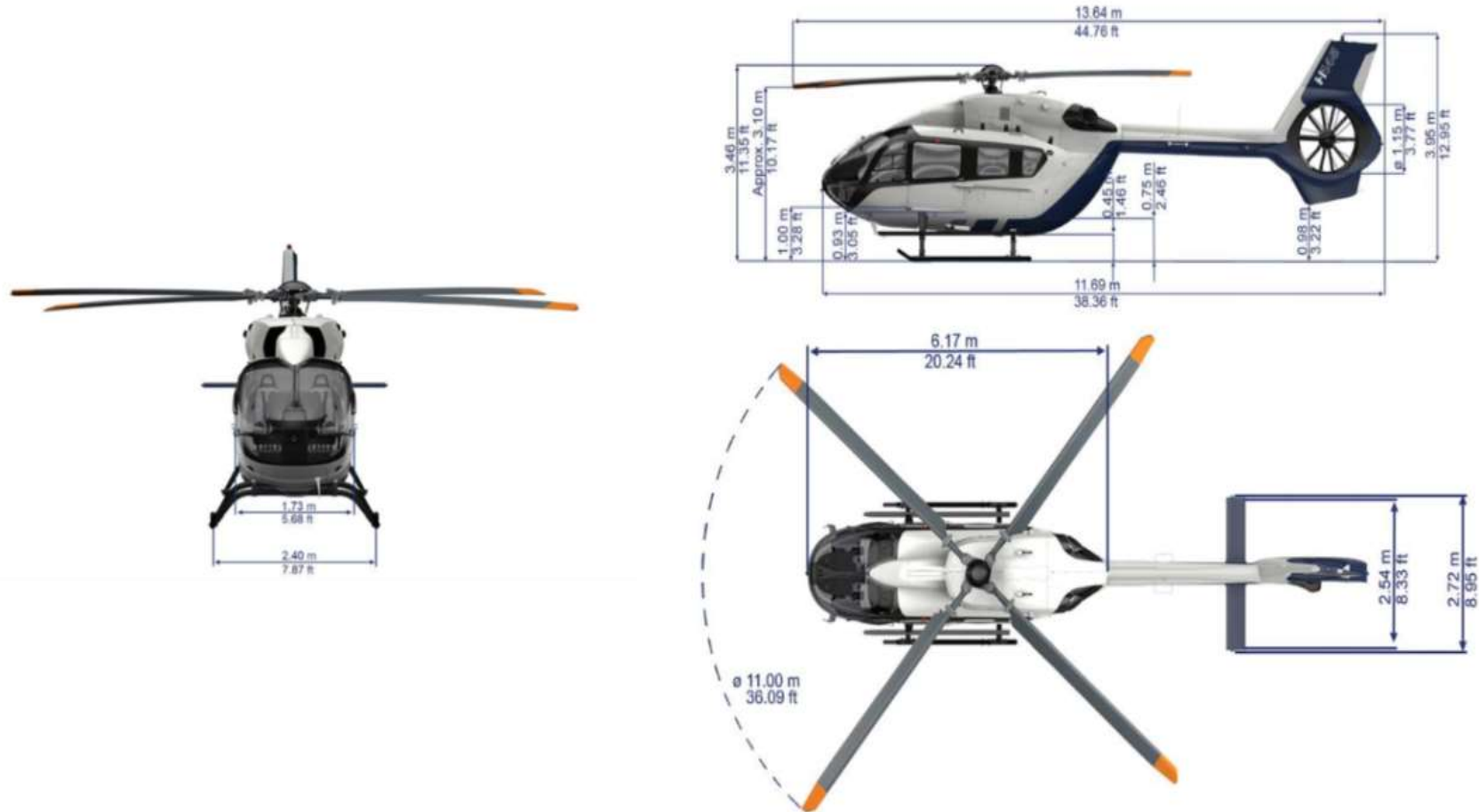
**PROCUREMENT OF TWO (2) UNITS OF APPROX. 94-METER MULTI-ROLE RESPONSE VESSEL (APPROX. 94M MRRV)  
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**HELICOPTER CRASH LOCKER**



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**EC 145 DIMENSIONS**



**PROCUREMENT OF TWO (2) UNITS OF APPROX. 94-METER MULTI-ROLE RESPONSE VESSEL (APPROX. 94M MRRV)  
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## EC 145 TECHNICAL DATA

### DIMENSIONS

Length	13.64 m	44.76 ft
Height	3.95 m	12.95 lb
Main rotor diameter	11.0 m	36.09 ft

### MAIN CHARACTERISTICS

MTOW (within the AGW flight envelope up to 3,800 kg)	3,700 kg	8,157.1 lb
Useful load	1,781 kg	3,926.4 lb
Sling capacity	1,600 kg	3,527.4 lb
Capacity	1 or 2 pilots + up to 10 passengers	

### PERFORMANCE

Maximum speed (Vne)	265 km/h	143.1 kts
Max range with std fuel tank	651 km	351.5 NM
Max endurance with std fuel tank	3h 36 mn	
Hover ceiling OGE (ISA+20)	2,332 m	7,650 ft

### ENGINE

Model	2 x SAFRAN ARRIEL 2E	
Takeoff Power	667 kW	893.8 shp
One engine inoperative (OEI 30s)	800 kW	1,072 shp

## AIRBUS

Airbus Helicopters Aéroport International Marseille-Provence, Marignane – France.

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