Specification
Build of a Patrol Vessel for Kent and Essex Inshore Fisheries and Conservation Authority (KEIFCA)

INTRODUCTION BACKGROUND OVERVIEW AND SCOPE

KENT AND ESSEX INSHORE FISHERIES AND CONSERVATION AUTHORITY (KEIFCA)

KEIFCA (the "Authority") covers the inshore waters of Kent and Essex out to six nautical miles. The organisation works on both land and sea to balance sustainable fisheries with a sustainable environment. Nationally the Inshore Fisheries Conservation Authorities vision is to:-

***"Lead, champion and manage a sustainable marine environment and inshore fisheries within their District by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry*"**.

The Authority has a fleet of vessels that are used to carry out control and enforcement activities afloat including boarding operations, throughout the inshore waters within the District.

This specification provides the minimum requirements of the build of a new Patrol Vessel (the 'Vessel'). The Vessel is required to be capable of carrying out compliance, principally within 6 nautical miles from baselines of the Kent and Essex coastlines. The Vessel to have the ability to conduct extended patrols out to 12 nautical miles and will be required to be operational both day and night all year round.

The Authority's jurisdiction remains at 0-6nm. There has been no further clarity from DEFRA regarding any future changes to the roles and responsibilities for the IFCAs post EU exit and introduction of Fisheries Act 2020 in terms of changes to District baselines and jurisdiction of territorial waters (0-12nm).

SCOPE OF WORKS

Whilst details in this Specification are intended as a guide to the Contractor (the "Boat Builder") it does set out what are the Authority's minimum requirements of the build. The Boat Builder is required to provide to the Authority details on a vessel ("Vessel Proposal") that meets this Specification.

The responsibility for the compliance with necessary maritime regulations in respect of the Vessel construction and compliance with the relevant commercial Codes of Practice is the responsibility of the Boat Builder and will not be the responsibility of the Authority.

The Authority works to tight operational timetables; when downtime caused by equipment failure or the requirement of lengthy, unscheduled maintenance would mean a failure to meet operational expectations. It is therefore a requirement that the Vessel includes 'robust' technology to facilitate working practices, especially with regard to engines.

It is envisaged that the design element of the Vessel construction will be an adaptation of readily available solutions. The Authority reserves the right to work with the Boat Builder in value engineering of the build; this will not equate to any substantial change but collaboratively improve function and/or value.

The Boat Builder must supply to the Authority the design and build details of the Vessel that demonstrates and evidences that the Vessel shall be in accordance with the Maritime and Coastguard Agency (MCA) regulations. This includes, but is not limited to, evidence of certification, qualifications, drawings, schedules, and adherence to relevant legislation.

1.0 VESSEL BUILD, COMPLIANCE AND CLASS

1.1 SCOPE

NEWBUILD BOAT

Certified to comply with The Workboat Code, Industry Working Group, and Technical Standard (Category 3) Maritime Guidance Note (MGN) 280 (M) construction standards for small vessels in commercial use for sport or pleasure, workboats, and pilot boats to accommodate a maximum of 6 and a minimum of 4 persons

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/905677/mgn280.pdf

Range	Ideal range will be 10-18 hours at operating speeds, about 300-400 miles.
Speed	Cruising @ 20-25kts, Max 35-40kts

2.0 VESSEL CONSTRUCTION, RANGE AND FUEL CAPACITY

2.1 The Patrol Vessel will be a Rigid Hulled Inflatable Boat with an overall length of minimum 9.5metres and maximum 11metres. The Boat Builder to state to the Authority the hull length within their Vessel Proposal.

2.2 The Patrol Vessel **Beam** length should be in the region of 3metres, the beam to vessel length ratio should be appropriate for the vessel built to the certification specified. The Boat Builder to state to the Authority the beam length within their Vessel Proposal

2.3 The Patrol Vessel **Draft** shall be in the region of 0.8 metres to 1.25metres. The Boat Builder to state to the Authority the draft depth within their Vessel Proposal.

2.4 **Fuel capacity** shall be such to allow 10-18 hours at operating speeds, the range shall be approximately 300-400 miles. The Boat Builder to state to the Authority the anticipated range and fuel capacity within their Vessel Proposal

3.0 SPEED AND MANOEVERING

3.1 The Vessel's cruising speed should be in the range of 20-25 knots and a maximum of 35-40knots. The Boat Builder to state to the Authority the anticipated cruising speed and fuel efficiency within their Vessel Proposal

4.0 CREW AND PASSENGERS

4.1 The Vessel should accommodate a minimum of 4 and a maximum of 6 persons. The Boat Builder to provide details in their Vessel Proposal.

5.0 HULL & MATERIAL

5.1 The hull shall be made from GRP/Composite or Aluminium. The Boat Builder to state to the Authority the hull material within their Vessel Proposal

5.2 The hull lay-up shall be in accordance with the rules for Small Craft to Lloyds Register Special Service Craft regulations.

5.3 Adequate protection against damage from grounding should be provided for the keel and any other areas considered vulnerable. This should be in the form of internal strengthening or external protection. The Boat Builder to state to this Authority how this will be achieved within their Vessel Proposal.

5.4 Adequate protection against damage during anchoring shall be provided. The Boat Builder to state to the Authority how this will be achieved within their Vessel Proposal.

5.5 Adequate permanent (sacrificial) protection against damage to the hull during hauling of fishing and research gear should be provided for in way of the pot hauler. The Boat Builder to state to the Authority how this will be achieved within their Vessel Proposal.

6.0 INTERIOR AND EXTERIOR FEATURES

6.1 There are no superstructure height restrictions or constraints.

6.2 The aft deck layout should have an emphasis on an uncluttered space.

6.3 The Boat Builder to state to the Authority the proposed dimensions of the wheelhouse, and the suggested layout of the Vessel within their Vessel Proposal.

6.4 The wheelhouse must include shock mitigating seating (in accordance with MGN 436) for a helmsman, navigator, and remaining crew

6.5 Stowage for the baggage of the Vessel's compliment to be provided within the wheelhouse but may be limited to a system where baggage can be clipped on to restrict movement.

6.6 Effective access to the bow is required so it can be used as a working area for boarding operations.

6.7 A hot water system or small drinks dispenser should be available, with a small sink dispensing fresh water.

6.8 A fitted sea toilet located in suitable area with sink for hygiene should be fitted, along with Waste and Fresh water tanks to facilitate use. The Boat Builder to state to the Authority the size of tanks within their Vessel Proposal.

6.9 The Patrol Vessel requires sign writing, including the vessel name, port and call sign.

6.10 The KEIFCA Fisheries pennant and any additional side signage should be on both sides of the cabin.

6.11 Suite of locks on external doors and hatches shall be provided.

6.12 Sun blinds on windows as an option.

7.0 EQUIPMENT FIT – MECHANICAL EQUIPMENT

7.1 Twin outboard engines with stainless steel dual prop system to be equipped. The Boat Builder to state to the Authority the power rating within their Vessel Proposal

7.2 The Boat Builder may include in their Vessel Proposal alternative ideas such as Diesel and/or Electric propulsion systems, however these will be assessed by the Authority for feasibility.

7.3 Steering system should be hydraulic with electric assist and should be suitable for the engine proposed.

7.4 It is anticipated that a suitably sized bow thruster system will be included as an option.

7.5 Sufficient fuel tank(s) capacity is required to provide a range of at least 300 to 400 nautical miles. The Boat Builder should state to the Authority fuel tank capacity and optimum speed for the range identified within their Vehicle Proposal.

7.6 Both engines should be able to run off either fuel tank, with associated spill returns to be configurable as required. Provision of level senders/remote indicators for each tank and pumped fuel transfer system for all tanks are required. The Boat Builder to state to the Authority the specific setup within their Vessel Proposal.

7.7 A fuel consumption computer is required to be provided or a system which incorporates the fuel used/remaining in the GPS/NAV systems.

8.0 EQUIPMENT FIT - ELECTRONIC EQUIPMENT

8.1 The Boat Builder shall supply, install, and commission all specified items during the course of the vessel build project. The Boat Builder to state to the Authority the equipment make and model in their Vessel Proposal.

8.2 Electrical Generation – A solar charge system comprising solar panels supplying a charge controller to maintain battery charge and provide auxiliary power when engines off. It is anticipated that the Vessel will not require a separate generator. The Boat Builder is required to state to the Authority the equipment make and model within their Vessel Proposal.

8.3 Power – 24V and direct current power system should be provided and should be installed throughout the vessel. USB ports for handheld and mobile device charging e.g. laptops and phones to be incorporated on console with plug sockets fitted in the rear of cabin.

8.4 A battery management monitoring system covering all battery and charging facilities is required and should be provided.

8.5 Interior lighting (LED) shall be provided utilising lights switchable to both red and white.

8.6 Variable speed wipers (WYNN wipers are preferred) with freshwater washers and a demister system to front, side and rear facing windows.

8.7 Diesel heating system should be provided in throughout the wheelhouse and to meet the requirement in 8.6.

8.8 FLIR/ Furuno OR equivalent CCTV cameras overlooking the deck areas and machinery spaces, with wheelhouse monitor and control is required. Long range FLIR/ Furuno OR equivalent CCTV (night capability and stabilised) camera and recording suite are required. The Boat Builder is required to state to the Authority the make and model within their Vessel Proposal.

8.9 Public address system to be controlled from the wheelhouse, with two way communication from the rear deck to the wheelhouse, complete with loud hailer function should be provided. The Boat Builder to state to the Authority the equipment make and model within their Vessel Proposal.

8.10 Secure communication system is to be provided. It is anticipated that this will consist of a fixed base station and hand held sets. The Boat Builder to state to the Authority the equipment make and model within their Vessel Proposal

8.11 A computer workstation with internet access. The Boat Builder to state to the Authority the equipment make and model within their Vessel Proposal.

8.12 A system to generate a Wi-Fi connection should be provided where the below equipment can be connected for updates and outside equipment such as laptops/phones can be connected.

8.13 Navigation and radio equipment (two fixed ICOM VHF DSC radios OR equivalent. It is anticipated that the vessel will have a Furuno OR equivalent integrated electronic chart-plotting multifunction display in accordance with the Work Boat Code. Furuno OR equivalent Navigation system to include the following interfaced sensors: Gyro or GPS heading sensor, dual frequency echosounder, AIS, radar image overlay. The Boat Builder to state to the Authority the equipment make and model within their Vessel Proposal.

8.14 A Furuno RADAR OR equivalent set should be provided and fitted, this must have an automatic radar plotting aid (ARPA) and a recording facility, along with collision avoidance technology. This is to combine a camera system which either operates using thermal or low light modes where footage can be recorded and stored. The Boat Builder to state to the Authority the equipment make and model within their Vessel Proposal.

8.15 Class A Automatic identification system (AIS) is to be fitted, with the ability to disable the transmission if necessary. The Boat Builder to state to the Authority the equipment make and model within their Vessel Proposal.

8.16 A Directional search light should be provided and be operable from the wheelhouse. The Boat Builder is to state to the Authority the equipment make and model within their Vessel Proposal.

8.17 There should be blue light emitting diode (LED) flashing beacons on the roof and front of wheelhouse so lights can be seen at 360 degrees. The Boat Builder to state to the Authority the equipment make and model within their Vessel Proposal.

8.18 A National marine electronics association (NMEA) data network is to be fitted providing appropriately positioned displays and data ports in the working areas of the vessel. The appropriate standard will be fitted and proposed by the builder in conjunction with vessel requirements.

9.0 DECK

9.1 A bracket/fixing for a portable pot hauler which is electrical powered similar to the below should be available near the bow but so as not to obstruct boarding operations.
https://www.northlift.com/electric-hauler-lh300

9.2. Deck shall be coated/laid with a non-slip surface to facilitate a safe working environment.

9.3 Sufficient deck lighting should be provided in the aft and foredeck areas.

9.4 Bollards, cleats and fairleads shall be provided for mooring. These fittings shall be positioned so as not to cause an obstruction.

9.5 Suitable mooring ropes and fenders (and stowage for these) are to be provided.

9.6 Deck storage convenient to Aft deck for gear should be included by the Boat Builder within their Vessel Proposal.

10.0 LIFESAVING AND FIREFIGHTING APPLIANCES AND EQUIPMENT

10.1 Lifesaving and firefighting appliances and equipment as required by vessel certification requirements should be provided.

10.2 A Man Over Board (MOB) recovery cradle should be provided.

10.3 Fire alarm with detectors and sounders in all areas shall be provided.

10.4 The Boat Builder to provide details within their Vessel Proposal.

11.0 VESSEL LAYOUT

11.1 **Machinery:** Primary steering and engine controls are to be ergonomically located at the front of the wheelhouse**.** The Boat Builder to provide details to the Authority within their Vessel Proposal.

12.0 Deck and Wheelhouse

12.1 The wheelhouse is to be positioned in such a way to allow good all-round visibility.

12.2 The fore deck should provide a working area and accommodate suitable fixing for the primary anchor.

12.3 The working deck will be self-draining.

12.4 A handrail shall be positioned on near the bow to assist boarding and recovery of crew, ideally this should be removeable if possible.

12.5 The decking and other relevant areas of the superstructures which may be used on a regular basis by the crew and passengers shall be **non-slip**. Internal decks to have nonslip coverings.

12.6 Access to the Deckhouse / Wheelhouse roof is desirable. Handrails around the Wheelhouse roof are required to facilitate boarding operations.

12.7 Effective soundproofing to reduce engine noise will be a priority.

12.8 The quality of the interior fittings, furnishings and linings are to be made of durable material and be of appropriate quality and finish.

12.9 The Boat Builder to provide details to the Authority within their Vessel Proposal.

13.0 COMPLIANCE

13.1 The vessel construction must, as a minimum, comply with United Kingdom Boatbuilding Regulations Category 3 of the United Kingdom and Maritime Coastguard Agency (MCA) small commercial motor vessel code of practice authorised by the Department of Transport.

13.2 The Boat Builder should identify within their Vessel Proposal the required necessary changes to enable the vessel construction to comply with United Kingdom Boatbuilding Regulations Category 2 of the United Kingdom and Maritime Coastguard Agency (MCA) small commercial motor vessel code of practice authorised by the Department of Transport.

13.3. The Vessel's weight and equipment should be distributed in a manner to promote good handling performance. MCA coding survey certificates must be issued and inspected before delivery.

13.4 The Boat Builder shall provide to the Authority within their Vehicle Proposal detailed information about the design and build of the vessel to evidence to the Authority that the build will be in accordance with the Maritime and Coastguard Agency (MCA) regulations. This includes, but is not limited to, certification, qualifications, drawings, schedules and adherence to relevant legislation. The Boat Builder must provide to the Authority a schedule of the completed vessel details. Such details to include, but not be limited to, Waterline length, Overall length, Overall beam, Maximum Draught at standard displacement, Maximum Height at standard displacement and Overall height, Hull thickness and weight.

13.5 Manuals for all fitted equipment to be provided in English Language.

13.6 Qualified independent surveyor shall be appointed by the Authority to authorise and monitor the build and advise prior to any stage payments to the Boat Builder.

14.0 WARRANTY, DELIVERY AND TRAINING

14.1 **Warranty** provision to include on-site resolution of issues by skilled boat builders, throughout the warranty period. The Boat Builder shall offer a full warranty in respect of all aspects of the Vessel including, but not limited to, build quality, parts, equipment, and seaworthiness for a period of not less than 18 months from date of handover. A commercial warranty for the engines shall be provided.

14.2 **Schedule of the boat build** must be in accordance with the contract award as per the Boat Builder's Vessel Proposal (the "Offer").

14.3 The Boat Builder will be required to provide to the Authority 2 days training for skipper(s) and crew(s) which shall include handling of the Vessel and training in use of equipment.

14.4 Delivery of the Vessel will be to with full fuel tanks and an on-site handover.

14.5 Upon delivery, the Boat Builder shall supply to the Authority all necessary certification, instruction manuals, safety certification and any other relevant documentation related to the ownership and safe operation of the vessel.

14.6 The Contract for the build will not be considered complete until test sea trials have been successfully completed and the Vessel is proven to meet the specification completely

14.7 The Boat Builder to provide details to the Authority on warranty, delivery and training within their Vessel Proposal.

15 BUILD LOCATION

15.1 The Authority will monitor the build the Vessel, with the Boat Builder, prior to any stage payments to the Boat Builder.

15.2 In order to monitor the build of the Vessel the Authority shall also appoint a qualified independent surveyor. Due to the necessity to visit the location of the boat build it is a requirement that the build takes place in the United Kingdom.

15.2 Schedule of visits to the boat yard will be required throughout the build. If the Boat Builder's yard is more than 4 hours from the Authority's base in Ramsgate, Kent, CT11 9HD, the Boat Builder shall be expected to contribute to travel and expenses for a maximum of two persons representing the Authority. It is the responsibility of the Boat Builder to factor in such costs, if applicable as boat yard is more than 4 hours from the Authority's base, within their Commercial Schedule.