



Border Force

**AUTHORITY: The Secretary of State for the Home
Department
acting through Border Force**

STATEMENT OF REQUIREMENTS

**CPV ACTIVE - MAINTENANCE AND SAFETY
EQUIPMENT RECERTIFICATION**

April 2020

C18366

CONTENTS

DEFINITIONS

Part 1: GENERAL

01 Background

Part 2: REQUIREMENTS AND CONSTRAINTS

02 Requirements

03 Location

04 Constraints

Part 3: PROVISION OF SERVICES

05 General Requirements

06 Emergent Work

Part 4: WARRANTY

07 Warranty Requirements

08 Insurance

Part 5: TRIALS, DOCUMENTATION & ACCEPTANCE

09 Trials

10 Documentation

11 Acceptance

12 Charges and payment

ANNEXES

Annex A: General Requirements of Works

Annex B: Inspection, Testing and Certification of Safety Equipment

Annex C: Vessel Maintenance Tasks

Annex D: Modifications and Defect Rectification

Annex E: General Arrangements

Annex F: Vessel Details

Annex G: Emergent Work Individual Item Proforma

Annex H: Emergent Work Item Record Spreadsheet

Annex I: Handover Certificate

Annex J: Acceptance Document

Annex K: Reimbursable Expenses

Annex L: 19m GRP patrol Boat Tech 110416. CPV Paint Scheme

Annex M: CPV Anodes, Cathode Protection and bonding

Annex N: Jet anodes 521

Annex O: Carbon Centre Disc Assembly & Operation M034-00003-EN

Annex P: MDKBL Cummins Onan service

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DEFINITIONS:

Acceptance	The issuing of an acceptance document, signed by the Authority following the completion of an Annual Maintenance & Repair Period to the satisfaction of the Authority.
Additional Work	Unprogrammed work outside of the scope of planned or scheduled work.
Agreed Facility	A single phone number for the Supplier giving access to a point of contact able to give user friendly assistance to persons experiencing technical problems with any part or operation of the Cutters
Alongside Berth	A suitable quay/berth with at least 1m depth below LWS at all times Complete with access by gangway/brow
BFOO	Border Force Overseeing Officer
Cardinal Date Plan (CDP)	A plan provided by the Supplier mapping out the significant dates for a project
Coast Patrol Vessel (CPV)	CPV Active
Collar	RIB Collars (also known as RIB Tubes or Sponson) are the inflatable section of a Rigid Hull Inflatable OR A polyurethane coated closed cell foam cored buoyant Collar offering similar properties.
Defect Rectification	Work undertaken to resolve any kind of defect identified and listed in the work package.
Driveline	The CPV Driveline is the engines, water jets and drive shafts, and components used to connect these together
Emergent Work (EW)	Any work that emerges from the Planned Maintenance, which is notified to the Supplier in this Statement of Requirements. Any works or services that are required to be undertaken on the Vessel which are a direct result of defects found during this package. Any Emergent Work undertaken is required to be formally authorised by the BFOO, with the Supplier having submitted a quote to the BFOO prior to authorisation.
Highlight Reports	A report highlighting the details, cause and effect, of a deviation from the agreed Cardinal Date Plan.
Lloyd Register	Lloyd's Register's Rules and Regulations set standards for the design, construction and lifetime maintenance of ships, offshore units and land-based installations.
Major Defect	Any defect or fault which reduces the performance of the CPV, so it is unable to perform its duties.
Milestone Payment Plan	A plan setting out the significant milestone payments process for each Maintenance and Repair period
Minor defect	Any defect or fault which reduces the performance of the CPV while allowing it to be safely operated for its duties.
Original Equipment Manufacturer (OEM)	The original manufacturer of a piece of equipment.
Planned Maintenance	The package of works as detailed at Annex A
Project Manager	A member of the Suppliers personnel who is responsible for the overall planning and execution of a project.
Progress Report	A report giving details of progress against the agreed CDP
Rectification Plan	A plan to rectify a specified defect, giving dates and reasons for relevant actions to effect full rectification of the defect.
Safe Working Load (SWL)	The maximum load a piece of equipment can safely lift.
Vessel	CPV Active
Spares	Unless specified as Border Force supplied, all spare parts required to complete an overhaul/maintenance/service

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	including paint/anodes are for the Supplier to provide and include in their Quotation
Warranty	A guarantee, issued to the Authority by the Supplier, promising to repair or replace something if necessary, within a specified period.
WHO	World Health Organisation
Working Location	The area in which the CPV is operational

Part 1: GENERAL

1. Background

- 1.1 The Authority currently operates a fleet of eleven sea going patrol craft operating in both UK National and International waters. This consists of five Cutters and six Coastal Patrol Vessels (CPV).
- 1.2 The six CPVs are equipped and certified to comply with Maritime Coastguard Agency (MCA) MGN 280 (M) Small Vessels in Commercial Use for Sport or Pleasure, Workboats and Pilot Boats – Alternative Construction Standards, Category 2, for service in waters up to 60 nautical miles from a safe haven.
- 1.3 The primary roles of the CPVs are: -
 - 1.3.1 To provide a mobile, flexible seaborne force capable of maintaining an effective deterrent against illegal immigration, smuggling and other breaches of the law administered by Border Force both within and outside the territorial waters of the UK.
 - 1.3.2 To increase maritime intelligence, undertake surveillance and improve international liaison in combating illegal immigration, the smuggling of drugs and movement of instruments of terrorism by sea;
 - 1.3.3 To intercept suspect vessels in territorial and international waters; and
 - 1.3.4 To provide mutual assistance to other EC countries, the Channel Isles, the Isle of Man and other partners on the UK border.
- 1.4 In addition to these primary responsibilities, Border Force also undertake tasks on behalf of the Ministry of Defence, Maritime and Coastguard Authority, National Crime Agency, Police and UK Fisheries Agencies.
- 1.5 The CPVs were originally built by Delta NP as Autonomous Rescue & Recovery Craft (“ARRC”), for use as Search & Rescue (SAR) assets for operation in the North Sea and were recommissioned by Border Force in 2017/18.
- 1.6 The CPVs are built from a Fibre Reinforced Plastic (FRP) sandwich construction with hybrid buoyant foam / air filled Collar and an enclosed wheelhouse and mission space.

Part 2: REQUIREMENTS AND CONSTRAINTS

2.0 Requirements

- 2.1 The objective of this specification is to provide requirements for;
 - 2.1.1 Maintenance of equipment and machinery;
 - 2.1.2 Recertification of all safety equipment;

2.1.3 Rectification of specified defects.

3.0 Location

3.1 Due to the operational Working Location of the CPV the work is to be undertaken inside the geographic parameters;

3.1.1 Firth of Clyde Area, Scotland to Anglesey Area, Wales.

3.1.2 Belfast Area, Northern Ireland to Dublin Area, Republic of Ireland

4.0 Constraints

4.1 All specified work must be completed.

4.2 All quotations are to be submitted in currency GBP.

4.3 All work carried out in accordance with this Specification of Requirements must be compliant to all applicable standards or Flag State regulations and in accordance with best industry standards.

4.4 All new parts and equipment fitted are to be supportable for a period of five years following installation.

4.5 All new equipment shall be provided with relevant operator & maintenance documentation, and any applicable certification.

4.6 All work is to be completed as follows:

4.6.1 Over a 2-week period from 15th to the 26th of June 2020.

Part 3: PROVISION OF SERVICES

5.0 General Requirements

5.1 The Supplier will appoint a dedicated Project Manager, as a single point of contact, for the duration of this Project.

5.2 The Authority will delegate a BFOO for the duration of this contract, who shall be entitled to inspect any work or to have it inspected by his duly authorised representative.

5.3 On arrival at the Supplier's premises the respective CPV will be formally handed over to the Supplier using the formal Handover Certificate at Annex I. Thereafter, the Supplier will be formally approached for consent in respect of any Authority activity or the activity of any Authority designated / arranged contractor onboard.

5.4 The Authority will be engaging with OEM manufacturers, under separate commercial arrangements, to undertake specific tasks on the Hamilton Jet propulsion units. The Supplier is to afford access as required and assist with various tasks as instructed by the BFOO to complete this specific work. Payment for these tasks will be covered under the EW process as outlined in § 6.0.

5.4.1 Hamilton Jet EMEA

Unit 26,
The Birches Industrial Estate,
East Grinstead,
West Sussex,
RH19 1XZ,
UK

PoC: Martin Tuhill - Fleet Operations Manager
martin.tuhill@hamiltonjet.uk

- 5.5 The Supplier is to confirm they will provide support to the external contractors Border Force has engaged with to complete the Hamilton jet work. This will be the provision of manual labour, craneage, tools, removal and disposal of parts if required.
- 5.6 The Supplier shall submit a draft CDP covering the completion of all planned work with the formal quotation for this work package, in an accessible Microsoft Office document format (.doc, .pdf or .xls), for approval by the Authority. Once agreed by the Authority this will form the final CDP to be followed.
- 5.6 The Supplier is to provide Highlight Reports within twenty-four hours of all identified deviations from the CDP.
- 5.7 During the contract period, the BFOO shall, during normal working hours, be afforded access to all premises of the yard or its suppliers where any parts are being manufactured, repaired or serviced.
- 5.8 During the contract period the Supplier shall provide reasonable office accommodation for use by the Authority, to include printing facilities. All costs associated with § 5.8 are to be at included in any quote/bid submitted by the Supplier to the Authority.
- 5.9 All tasks shall be completed by suitably qualified and experienced personnel (SQEP) in relation to the equipment being worked upon.
- 5.10 The Supplier is expected to clean the working area and remove and dispose of those component parts that are replaced and all waste created during this project, in addition to returning the vessel to its original state of cleanliness on handover.
- 5.10 All minor consumable fixings, sealants etc required to rectify defects to be provided by the Supplier.
- 5.11 The Supplier is required to provide secure storage for the vessel's equipment stored in the mission and bunk space.
- 5.12 All bunk space soft furnishings, including mattresses are to be removed to a secure clean environment for the duration of the work, or covered to adequately protect them from dirt. If soiled, they are to be returned to a clean and usable state.
- 5.13. On completion of all work and prior to handback, the vessel shall be cleaned to an acceptable standard for immediate operational use as accepted by the Authority.

6.0 Emergent Work

- 6.1 All EW proposals are to be submitted to the BFOO on the attached Emergent Work Individual Item proforma (Annex G).
- 6.2 All costs and any time delays to the completion date are to be articulated to the BFOO with the EW proposal. The BFOO will authorise the Emergent Work on behalf of the Authority, if deemed appropriate by the BFOO, and provide formal acknowledgement of acceptance of the proposal to the Supplier.
- 6.3 The BFOO and the Supplier are to record the cumulative Emergent Work costs on the attached spreadsheet (Annex H), or in a similar format, which will be cross checked and analysed at the Weekly progress meeting.
- 6.4 Upon Acceptance by the Authority, the supplier will scan all Emergent Works Individual Item proformas that have been authorised and email them to the BFOO, along with the overall Emergent Work Item Record Spreadsheet (Annex H).
- 6.5 Any proposals or work that has been undertaken by the Supplier, or a sub-contractor of the Supplier, and that are found to have not been unauthorised by the BFOO in accordance with § 6.2 on behalf of the Authority, upon final invoice submission, will be at the expense of the Supplier and will not be paid by the Authority.

NB: It is strongly advised, therefore, that the Supplier liaise with the BFOO for every item of EW that requires consideration before the Supplier commences work.

Part 4: WARRANTY AND INSURANCE

7.0 Warranty Requirements

- 7.1 The Supplier shall provide an Agreed Facility for reporting faults and obtaining technical advice, covering the hours between 08:00 and 16:30, Monday to Friday, for the logging of faults or data. Response times for such service shall allow for all faults to be logged, given a reference number and Rectification plan agreed between all parties within a maximum of forty-eight hours of the fault being logged.
- 7.2 The Supplier shall provide warranty repairs in the event that any of the supplied or repaired parts develops a fault during the parts warranty period as detailed in § 6.3.
- 7.3 All Work carried out by the Supplier during the period of this contract shall be covered by a one-year Warranty commencing from the date of acceptance back in to the custody of the Authority.
- 7.4 All new parts supplied or fitted during the period of this contract shall be covered by a one-year warranty or such other provided warranty if it is longer than the minimum one year commencing from the date of acceptance back in to the custody of the Authority.
- 7.5 In the event that a Warranty Major Defect is notified to the Supplier that will render the CPV non-operational. The Supplier shall provide services to ensure the CPV is restored to full working condition within forty-eight hours, calculated from the date and time on which the Authority agrees the Supplier personnel can gain access to the CPV. In the event a Major

Defect cannot be rectified within the assigned period, a Rectification Plan must be agreed with the Authority within forty-eight hours of identification of the potential failure.

- 7.6 In the event that a Warranty Minor Defect is notified to the Supplier, other than those that will render the CPV non-operational, the Supplier shall provide services to ensure the CPV is restored to full working condition, as quickly as possible, and in any event, within ten working days, calculated from the date and time on which the Authority agrees the Supplier personnel can gain access to the CPV. In the event a Minor Defect cannot be rectified within the assigned period, a Rectification Plan must be agreed with the Authority within forty-eight hours of identification of the potential failure.

8.0 Insurance

- 8.1 The Supplier is to provide proof of insurance to cover all specified and implied risks involved in the conduct of this requirements.
- 8.2 The Supplier is to provide documentary proof of their current shipyard insurance policy, ensuring that the liability amount is clearly visible and that it is in excess of £5,000,000.00 (GBP). This is to be submitted to the Authority in .pdf format.
- 8.3 Any additional costs that may be incurred by the Supplier due to the undertaking of a bespoke insurance arrangement are to be included in the quote and the Authority is to be notified and then provided with the appropriate documentary proof.

Part 5: TRIALS, DOCUMENTATION AND ACCEPTANCE

9.0 Trials

- 9.1 On completion of all work and once the Supplier has satisfied themselves that the CPV is a seaworthy condition; the seaworthiness of the vessel will be demonstrated to the Authority who will provide an Acceptance Certificate and confirm the hand back of the CPV into the custody and responsibility of the Authority. Where propulsion work has been undertaken, this shall include propulsion and manoeuvring trials measured against original trials data for comparison.
- 9.2 The Authority will provide, in respect of launching and pre-sea trails, for completion by the Supplier
- 8.2.1 Acceptance certificate form as at Annex J
- 9.2 Any trials required shall be to prove that the executed work has been carried out satisfactorily and that the various systems can be checked and confirmed as fully and effectively re-commissioned. Other than fuel, all costs related to the operations of test and trials will be the responsibility of the Supplier.
- 9.3 Because of the specialist nature of the vessel, the Authority will provide a crew familiar with the navigational controls and engineering systems of the CPV during any trials.

10.0 Documentation

- 10.1 All certification required for regulatory compliance or requested by the Authority shall be supplied enclosed in clear envelopes within a four-ring ring binder, complete with an index. An electronic copy shall be forwarded by e-mail to the Authority in an accessible Microsoft Word format.
- 10.2 All certificates and reports specified as required are to be provided before acceptance.
- 10.3 All certificates and reports specified as required are to be provided in a hard copy folder to the vessel before acceptance and electronically emailed to the Authority.
- 10.4 Certifications are required in the following format;
- 10.4.1 One set of hard copies
 - 10.4.2 One set of electronic copy with index

NB: Although these sets of certifications are to be presented at the Acceptance Meeting, to optimise time spent in checking these during the acceptance meeting prior opportunity shall have been given to the BFOO to check the contents and the index.

11.0 Acceptance

- 11.1 Final acceptance will be the issuing of an Acceptance Certificate as at Annex J, signed by the Authority.
- 11.2 The Final Acceptance document will be issued after:
- 10.2.1 Successful completion of any trials required for the work undertaken.
 - 10.2.2 Delivery of Certificates of Conformity for all new equipment fitted.
 - 10.2.3 Delivery of all documentation and certificates as specified in part 8 of this Statement of Requirements.

12.0 Charges and Payment

- 12.1 All invoices are to be submitted in currency GBP.
- 12.2 All invoice correspondence is to be as per instructions on the Home Office issued PO document only.
- 12.3 The Supplier will receive one (1) Purchase Order (PO) number for this requirement;
- 11.3.1 This number will be extant from the date of contract commencement until 26th Jun 2020, or such time as it is deemed closed by the Authority.
- 12.4 Upon issue of a PO by the Authority, the Supplier can begin to submit invoices to the email address provided in accordance with the line-items on the PO document ensuring that all mandatory data is on the Invoice.

- 12.5 On completion the Supplier shall provide the Authority with a completed schedule confirming the individual cost breakdown for each item of specified work and emerging work for approval. Following BFOO approval and agreement of this schedule the Supplier will invoice the Authority for 100% of the total amount.
- 12.6 All travel and subsistence costs related to warranty defect repairs shall be recharged at the Home Office reimbursable T&S rates as stipulated in Annex K. Any additional costs outside those in Annex K are to be strictly at the expense of the Supplier.
- 12.7 The Supplier is to ensure that every item of specified work has been completed in line with this Specification of Requirements or they have an official acknowledgement from the BFOO allowing for non-completion.
- 12.8 The Supplier is to ensure that all EW tasks are approved by the BFOO, signed off by the BFOO and serialised appropriately and recorded in the EW spreadsheet (Annex H).
- 12.9 Failure, by the Supplier, to include EW that is compliant with the instructions set out at § 6.0, will result in the Authority being unable to accept them for remuneration. If non-compliant tasks, either specified or emergent, are invoiced for payment, these costs will be rejected by the Authority and they will be at the expense of the Supplier.

NB: The Authority reserves the right to withhold payment from the Supplier, in part or in full, should any, specified or otherwise, condition as expressed in this Specification of requirements, not be successfully met by the Supplier.

Annex A: General Requirements of Works

1.0 Shore Power

- 1.1. The supplier is to provide 240-volt 50 Hz 32-amp, three phase shore power from grid/mains for the duration of the maintenance/LSA period.
- 1.2. Supplier to provide costs for;
 - 1.2.1. Unit cost per kWh.
- 1.3. Payment of electricity consumed will be covered under the Emergent Work process.
- 1.4. If direct shore power is not available, the provision of a shore-based generator may be required after consultation with the BFOO.
 - 1.4.1. Supplier to provide costs for;
 - 1.4.1.1.Hire of generator
 - 1.4.1.2.Connection and disconnection of power cable
 - 1.4.1.3.Unit cost per kWh

2.0 Berthing

- 2.1 The Supplier is to be able to provide secure alongside berthing, as required, during this period of works, as specified in Part 2. § 4.6.1, with a minimum depth of 1m below Low Water Spring Tides.
- 2.2 Supplier to provide costs for;
 - 2.2.1 Daily cost of berth IAW 2.1
- 2.3 Provide means of safe access.

3.0 Third-Party Costs

- 3.1 Where a requirement stipulates the use of a third party, the Supplier is responsible for arranging the attendance of such suppliers. The Supplier is to include those costs in the section which stipulates the attendance.

4.0 Disposal of Waste and Cleanliness

- 4.1 The Supplier will be expected to clean any working areas, removing and disposing of those component parts that have been replaced. All waste created during this project is to be disposed of in accordance with any and all applicable national and international regulations. In so doing the Supplier will return the vessel to its original state of cleanliness on handover.

Annex B: Inspection, Testing and Certification of Safety Equipment.

1.0 Requirements for Certification.

- 1.1 The following items shall be Inspected and Tested where required. All items shall be issued a separate Certificate of Inspection and Testing.
- 1.2 All tasks are to be carried out by an approved examination test house, unless otherwise stated.
- 1.3 On completion of all work the supplier should provide inspection reports and certification for each separate task.

2.0 Documentation

- 2.1 One copy of all certification required for regulatory compliance or requested by the Authority shall be supplied enclosed in clear envelopes within two four-ring binders.
- 2.2 Each binder shall be assembled using an indexed list of contents.
- 2.3 An electronic copy of each, separate, certificate is to be forwarded by the Supplier to the Authority in .pdf format before the vessel is handed back to the Authority.
- 2.4 All certificates and survey reports, as specified, are required are to be provided before the acceptance meeting.
- 2.5 All certificates and reports specified as required are to be provided in hard copy folders to the vessel before departure and electronically emailed to the Authority.

NB: Although these sets of certifications are to be presented at the Acceptance Meeting, to minimize time spent in checking these during the acceptance meeting prior opportunity shall have been given to the Border Force Overseeing Officer to check the contents and the index.

3.0 LIFE SAVING EQUIPMENT

- 3.1 Service the following portable Fire extinguishers and fire blanket. Identify with indelible service date marking and provide itemised annual certification to BFOO.

3.1.1 CO₂ Extinguishers

- 3.1.1a Wheelhouse portside
- 3.1.1b Wheelhouse stbdside
- 3.1.1c Wheelhouse Chart table
- 3.1.1d Top of Stairwell

3.1.1e Main Deck aft

3.1.2 6 Kg Dry Powder

3.1.2a Wheelhouse port

3.1.2b Mission space stbd side

3.1.3 6 litre Foam

3.1.3a O/S Engine room

3.1.4 Fire Blanket

3.1.4a Galley

- 3.2 Lay out the 18m fire hose and pressure test the hose to 4 Bar. If test failure occurs, notify BFOO and submit EW request.
- 3.2 Inspect and functionally test firefighting Nozzle. If test failure occurs, notify BFOO and submit EW request.
- 3.3 Carry out annual service and provide certification for all sections of the Hadrian Safety rail. (Hadrian rail fitted around the upper deck to the superstructure at waist height and short sections on the wheelhouse roof, engine room roof and in front of the wipers. (Static load test of 300Kn/300kg required horizontally from harness carriages at all critical points the on rail).
- 3.4 Inspect and certify 4 lifejacket-to-traveller-rail lanyards and 2x working at height harnesses and lanyards.
- 3.5 Carry out annual service to 8x inflatable lifejackets and provide certification for. (Crewsaver Seacrewsader 2010 275N).
- 3.6 Approved fire safety contractor to undertake annual inspection and test of the fire detection system.
- 3.7 Undertake test of rock 7 remote monitoring system sensors and confirm transmission to remote monitoring. (1x intruder, 1x smoke detector, 4x bilge).
- 3.8 Itemised certification for lines 1.1 – 1.9 to be provided to the BFOO by the Supplier.

Annex C: Vessel Maintenance Tasks

1.0 HULL

- 1.1 Lift the CPV from the water, using an in-date certified lift and appropriate safe process to reduce the stresses on the GRP hull and prevent damage.
- 1.2 Pressure wash off the hull with fresh water and degrease.
- 1.3 Block off the hull, ensuring hull stresses are minimised.
- 1.4 Inspect the GRP hull for damage and advise the BFOO of the results and any recommendations for remedial work.
- 1.5 Abrade the hull existing antifouling and apply two coats of International Interspeed 6400 Antifouling paint IAW international paint instructions and CPV paint scheme. The Supplier is to supply paint.
- 1.6 Inspect superstructure and deck, providing a report on preservation condition and remedial work recommended in accordance with the emergent work process.
- 1.7 Launch the CPV when required.
- 1.8 Provide an Alongside Berth as required during LSA / Maintenance period.
- 1.9 Inspection to the satisfaction of the BFOO to be conducted prior to launch.

2.0 SPONSONS

NB: In order to undertake the sponson pressure test, specified below, and any subsequent repair identified as required, the vessel is to be in an environmentally controlled facility.

- 2.1 Survey of the sponsons, including anti-slip, rubbing strakes and integrity of attachments.
- 2.2 Survey of the sponson attachment to GRP hull landing, including soap tests to seams.
- 2.3 Carry out sponson air compartment air test to 120% of the working pressure for 30 minutes (2 psi).
- 2.4 Inflate all compartments to the working pressure (1.65 psi), record ambient temperature. After 24 hours check working pressure has not dropped taking ambient temperature change into account.
- 2.5 Survey all sponson inflation valves and identify to the BFOO any valves that do not meet the standard of the survey.
- 2.6 A satisfactory inflation test certificate is required to be provided to the Authority suitable for Class 2 use under MGN 280 4.5.3. Stating the above has been achieved.
- 2.7. If a satisfactory inflation test is initially not achieved, a report of the findings and costs to rectify / retest is to be provided to the BFOO.

3.0 DRIVE SHAFTS & COOPER BEARINGS

3.1 Cooper Bearings;

3.1.1 Conduct visual inspection of the 4x seal housings and report findings.

3.1.2 All retaining fittings are checked for appropriate tightness to retain cooper bearings in position.

3.2 Drive Shafts and couplings;

3.2.1 Inspect the two drive shaft drive units and report findings;

3.2.2 Inspect all couplings for cracking, chipping, damage to the corrosion prevention coating and report findings;

3.2.3 All retaining fittings are to be checked for correct torque values. (Carbon Shaft section M10 Allen bolts 40nm, all other fixings IAW supplied CENTRA installation manual at Annex M).

4.0 BLACK WATER SYSTEM

4.1 Flush and disinfect the system.

4.2 Carry out a functional test of system, including level indication system, identifying any leaks or issues to the BFOO.

5.0 LOAD TESTING AND STRUCTURAL INSPECTION

5.1 Conduct an annual inspection of the anchor windlass structure security, anchor and anchoring equipment, providing a report on the findings.

5.2 Load test the anchor windlass to 1.2x the SWL and provide certification (180KG Dynamic and 600kg static).

5.3 Undertake an inspection of the Sampson post mounting structure and securing arrangements. Provide a report on the findings, including any remedial work recommended under EW action prior to undertaking a 2-tonne load test on completion.

5.4 Conduct an annual inspection of the fwd. securing post and mounting structure, provide a report on the findings to the BFOO.

6.0 ELECTRICAL 240 AC & 24 DC

6.1 Carry out electrical system inspection, including the accompanying insulation tests on the following systems;

6.1.1 240-volt AC distribution.

6.1.2 24-volt DC distribution.

- 6.1.3 Shore power cable and connection system.
- 6.1.4 Undertake PAT testing on up to 15 items identified by the BFOO.
- 6.1.5 Undertake battery capacity tests on all battery banks (Port, Stbd, emergency, Hamilton jet control and generator start battery).
- 6.1.6 Provide a report on 5.1.1 – 5.1.5 with recommendations, test results and certification for all the above.

6.2 Carry out radiation test on the microwave oven and certify.

6.3 The Onan 7MDKDL 240-volt AC alternator is to have;

- 6.3.1 800-hour service by an approved service agent (Full service, including all tasks up to and including 800 hr requirement IAW manufacturer's instructions at Annex P.
- 6.3.2 Alternator winding, insulation test carried out and reading supplied in writing to the BFOO.

7.0 FRESH WATER & BILGES

7.1 Open and inspect fresh water tanks, clean as necessary, carry out super chlorination process of the fresh water system, including holding tanks, pipework, taps etc, flush and conduct potable water biological test, including legionella test on galley tap, providing potable water certification on completion (total tank capacity 274 Litres).

7.2 Check operation of bilge alarms and sounder, undertaking a functional test of all manual and electric bilge pumps. Written confirmation of test results to be provided to the BFOO.

7.3 Engine room located calorifier;

- 7.3.1 Carry out pressure test to 1.5x the working pressure on the pressure vessel and provide certification to the BFOO.
- 7.3.2 Remove the safety valve, carry out a functional test and certify or replace with new certified valve. Provide certification to the BFOO.

8.0 NOVEC 1230 FIXED FIRE FIGHTING SYSTEM & FIRE PUMP

8.1 Approved fire safety contractor to carry out an annual service of the fixed firefighting system, including;

- 8.1.1 Pressure check.
- 8.1.2 Liquid Level check.
- 8.1.3 Remote pressure monitoring indicator check.
- 8.1.4 System Inspection report and certification required on completion.

8.1.4 Functionally test and certify manual fire pump.

9.0 DOMETIC AIR CONDITIONING SYSTEM

9.1 Conduct an annual service on the Wheelhouse and Accommodation Air Conditioning units, including:

9.1.1 Remove and clean the return air filters, dry and replace.

9.1.2 Open up and clean the reversing valve, inspect and replace.

9.1.3 Electrically isolate the system, disconnect the inlet and outlet connections to the condenser coil and undertake a chemical clean of the condenser and saltwater pipework. Flush, reconnect and check for leaks on completion.

9.1.4 Reconnect the system and carry out both a heating and cooling function test on completion when the vessel is afloat, demonstrating correct functionality to the overseer.

10.0 EBERSHACER MODEL D4 AUTRONIC DIESEL OIL FIRED HEATER x2

10.1 An annual service is to be carried out on the 2x Ebershacer Model D4 oil fired diesel heaters by a qualified Ebershacer service agent. Report of service/certification to be provided on completion.

11.0 SHORE POWER

11.1 Provision and supply of 240-volt 50 Hz, single phase shore power, for the duration of the contract period whilst the CPV is ashore and alongside being commissioned up until acceptance by the Authority.

12.0 HM521 HAMILTON JET UNITS

12.1 Undertake a thorough inspection of the Hamilton water jet system and report the findings.

12.2 Undertake annual hydraulic pack oil and filter change. (BF supply oil and filters)

12.3 Undertake annual bearing oil change. (BF supply oil).

12.4 Prepare and antifoul the jets with Trilux 33 (black). Allow approximately 7m². (Supplier to provide paint).

13.0 HULL VALVES

13.1 The following stainless-steel main sea inlet valves are to be renewed, overhauled and pressure tested to the same specification as existing and certification provided;

13.1.1 2x 3" Ball valves main engine inlets.

13.1.2 1x 2" Ball valve Generator supply.

- 13.2 The following additional hull valves are to be tested for watertight integrity and that they are free to move, including correct functioning of any remote operating device;

13.2.1 1x Air conditioning SW inlet valve.

13.2.2 1x Air conditioning SW discharge valve.

13.2.3 1x 2" Ball valve Black water discharge valve.

13.2.3 1x manual fire pump sea inlet valve.

14.0 COMPASS SWING

- 14.1 Arrange for a compass swing to be undertaken at the end of the maintenance period and appropriate documentation supplied.

15.0 ANNUAL MCA SURVEY AND CERTIFICATION

- 15.1 Arrange for an MCA approved Class 2 surveyor in accordance with MGN 280M section 27 to undertake the following:
- 15.1.1 Conduct the requisite out of water survey to satisfy the requirements for continuation of issue of a Small Commercial Vessel Certificate.
 - 15.1.2 To provide a written survey report covering all aspects required by MGN 280M. (Currently Border Force have Class 2 certification with YDSA).
 - 15.1.3 Sign relevant section of the SCV2A confirming a satisfactory mid-term survey has been completed.

Annex D: Modifications and Defect Rectification

1. Survey and adjust/lubricate jet space rectangular hatch securing mechanisms (6x Catches per hatch, 2x hatches) allow 4 hours mechanical constructive time to undertake. If replacement parts are required to be procured/manufactured or constructive rectification work identified as required following survey, EW action to be taken in accordance with the guidance at § 6.0. Photograph 1 below shows hatch fixing positions.
2. Wheel house seat side bolsters insufficiently well supported resulting in foam supports starting to break. Manufacture GRP/METAL supports / base to support bolsters and repair seats using best endeavor. Allow 1-hour survey time to investigate. VO action for repair proposal following survey and discussion with BFOO. Photo 1 shows modified OEM seat with Bolster support (Now obsolete). Photograph 2 shows Wheelhouse seat configuration.

NB: Defects to be costed, including; provision of material where specified and any work-in-wake.

Photograph 1

Active Defect 1 showing 6x allen head catches.



Photograph 2

Defect 2 seat arrangement with example OEM metal bolster support fitted and seat configuration.



NB: All certificates and reports that are specified as being required are to be provided in to the BFOO before the CPV is accepted back under the responsibility of the Authority. All certification is to be provided in the following formats;

- a) Electronic – by way of email; and**
- b) Hard Copy by way of a four-ring, ring-bound folder with certificates in clear plastic wallets All hard copy certificates shall be indexed and ordered.**

The Authority reserves the right to withhold payment, either in part or in full, if any item of the Specification of Requirements is not achieved successfully without prior, acknowledged and authorised, engagement with the BFOO by the Supplier pertaining to non-completion.

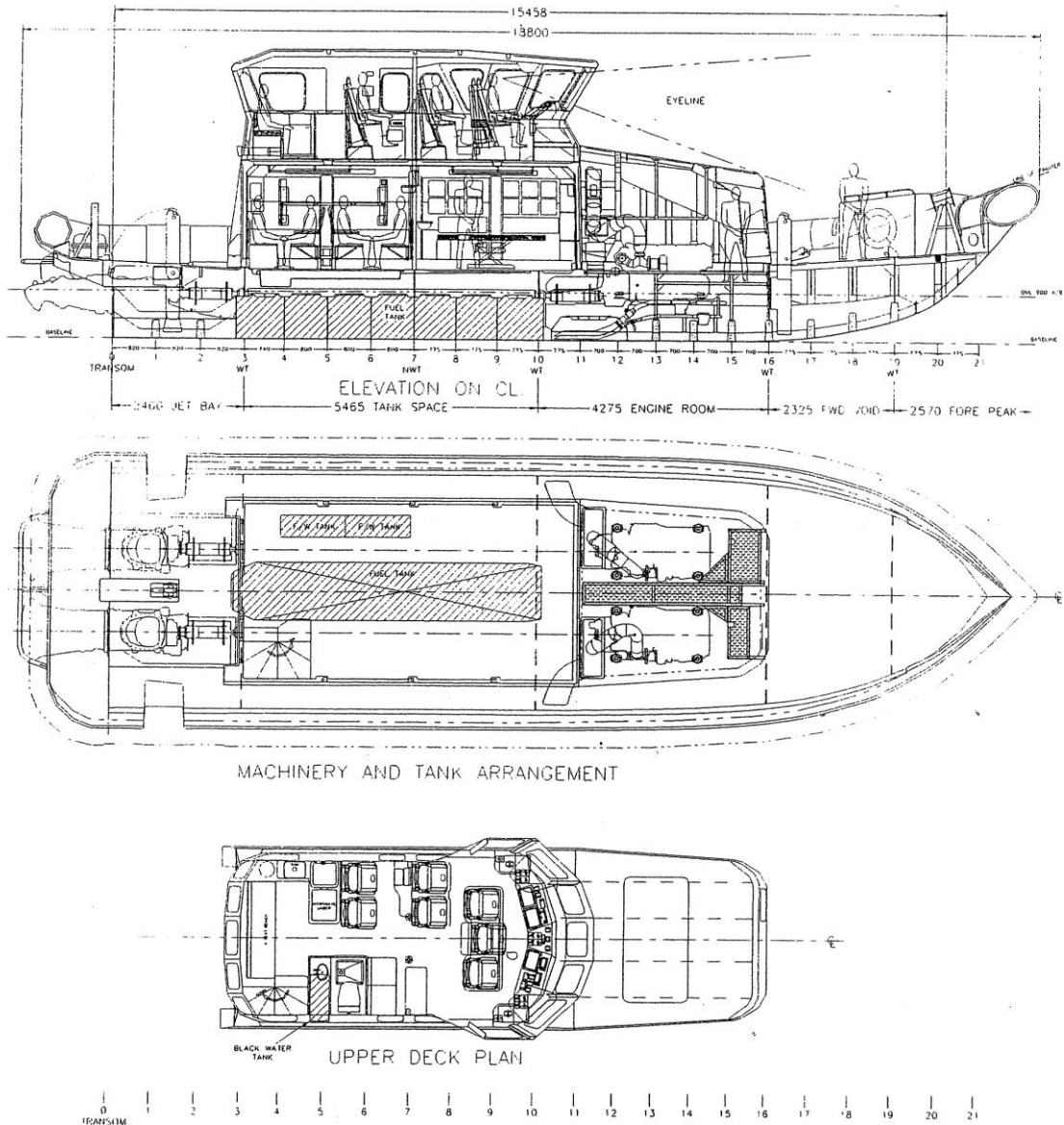
Please acknowledge that you have read and understood this requirement upon submission of quotes.

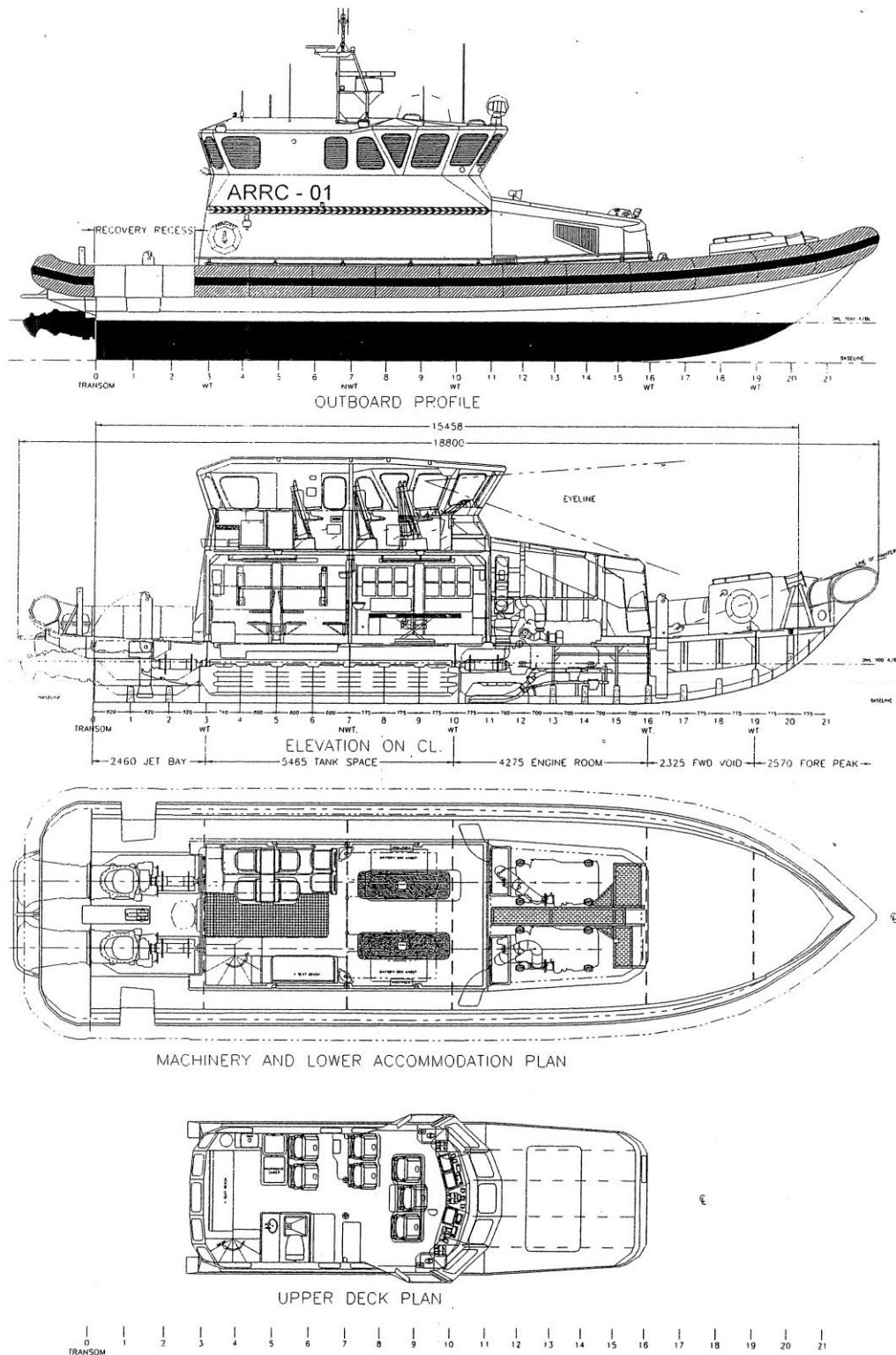
Annex E: General Arrangements

18.8m ARRC

GENERAL ARRANGEMENT


Note: All longitudinal dimensions are about the AP (station 0)
All vertical dimensions are about the base line at the underside of keel (USK)
All draughts are measured from the base line (USK)






Eight vessels in the class: no pennant number are visually assigned, the f.r.p. (fibre reinforced plastic) mouldings were fabricated by Holyhead Marine Services and were fitted out by Delta in 2005-6. They were built and surveyed in accordance with Lloyd's Rules for Special Service Craft to the classification ☐ 100 A1 SSC PATROL RIB HSC LDC G3 to report 10 status.

Annex F: Vessel Details

 Border Force	Name	MMSI	Callsign
	CPV EAGLE	235118128	2JQP8
	CPV NIMROD	235118129	2JQP9
	CPV ALERT	235118131	2JQQ2
	CPV ACTIVE	235118132	2JQQ3
	CPV HUNTER	235118133	2JQQ4
	CPV SPEEDWELL	235118134	2JQQ5
Length overall (LOA)	18.80 m including the Collar, waterjet and its guard		
Length Rigid Hull	16.75 m		
Length waterline (LWL)	15.49 m		
Beam Overall	5.60 m		
Beam Moulded Hull	5.22 m		
Draught aft full load	0.96 m		
Ht Overall USK to mast	7.42 m (approx.)		
Displacement	c31.1 tonne		
Construction	FRP (fibre reinforced plastic)		
Main Engines	Twin Caterpillar C18 Marine diesel engines rated output 876 bhp / 644 kW @ 2,200 rpm each. (Total 1,752 bhp / 1,288 kW) Emergency rating 1,000 bhp (747 kW) @ 2,300 rpm		
Gearbox	ZF 550 reduction ratio 1.5:1		
Propulsion	Twin Hamilton HM 521A Waterjets		
Speeds	28 knots Cruising 34 knots emergency sprint speed in suitable seas		
Manoeuvrability	Manoeuvrability at all speeds is good		
Range / Endurance	(See Section 11: Fuel, Speed, Range.)		
Fuel	Design fuel load 3,424 litres. Max Fuel capacity 3,750 litres.		
Fuel Consumption	At Max rated power 195.6 litres / hour		
Fresh water	270 litres		
Black Water	71 litres		
Accommodation	4 berths FOC		
Domestic Arrgts	Small Galley, Combined shower and heads (Wheelhouse deck IOC Main Deck FOC)		
Crew Seating	5 Wheelhouse seats		
Mission Space	IOC. An open compartment accessed from the main deck level provides non-formatted mission space to accommodate up to 23 persons in addition to the crew. FOC separate compartment containing 4 x Bunk accommodation in Fwd. section of mission space.		

Annex G: Emergent Work Individual Item Proforma

Emergent Work (EW) Individual Item Proforma				 Border Force	
EMERGENT WORK ITEM No: C18366/					
<i>Description</i>					
Signed, BFOO:			Date:		
PART I: By Supplier					
The above item is accepted as a genuine Emergent work item.					
Our Firm Price is*			£		
Our Realistic Estimate is*					
Price Breakdown	Labour	£	Hrs X	Per/hour	
	Materials	£			
	Sub-contract	£	Profit @	%	£
Signed:			Position:		
			Dated:		
TIME PENALTY (if any) The completion date of the contract* will/will not be affected by this item.					
PART II: By Border Force Overseeing Officer					
It is agreed that this is a genuine emergent work item and authority is given for the work to be undertaken.					
The Above Firm Price/Realistic Estimate* of £			ACCEPTED	REJECTED	
Signed:			Date:		
Notes: *- Delete as required All interactions pertaining to Emergent Work are to be carried out strictly in accordance with Section 10, Sub-sections, 10.1- 10.5, inclusive.					

C18366 – C – Pg. 26 of 34
OFFICIAL

Annex I: Handover Certificate**CPV ACTIVE****Border Force**

This Handover to Supplier Certificate is to be duly signed by a representative of the Authority and the Supplier upon the commencement of the contract for the Maintenance and Safety Equipment Recertification to CPV Active (C18366).

Immediately upon signing this Handover Certificate by the Supplier, the responsibility and safe custody of CPV Active is accepted by the Supplier and the responsibility and safe custody will always thereafter remain with the Supplier until completion of the contract and an Acceptance Certificate duly signed by the Authority and the Supplier representative.

Statement of Condition by the Authority

CPV Active is in a safe and stable condition. All systems have been shut down, (except those as listed below, commensurate with the systems as required by the Supplier).

Tank Contents

Fuel		litres		
Fresh water		litres		
Black Water Tank		litres		

Systems Still Operational**Signed:****Signed:****For and on Behalf of the Supplier:****For and on Behalf of the Authority:****Name:****Name:****Position / Capacity:****Position / Capacity**

Annex J: Acceptance Certificate**Acceptance Certificate****Border Force****PART I: to be completed by Supplier****CPV ACTIVE**

CPV Active having completed contract C18366 to the satisfaction of the Authority and having successfully completed all trials and provided all documentation required under the Authority's Contract No C18366 is this day offered for acceptance by the Border Force.

Signed:**For and on Behalf of the Supplier:****Print Name:****Date:****PART II: to be completed by The Authority****By Vessel Commander:**

I attended the trials of CPV Active and have satisfied myself that all systems, machinery and equipment are working satisfactorily. I have inspected the CPV and consider she is in a condition suitable for return to operational service. Outstanding items are noted as attached.

Signed:**Print Name / Post:****By Border Force Overseeing Officer:**

CPV Active having completed contract C18366 to the satisfaction of the Authority and having completed all trials and documentation required under the Contract is hereby accepted at..... hours.

Signed:**Border Force Overseeing Officer****Print Name:****Date:****PART III: Outstanding Items**

Any outstanding items are to be noted, appended to this form and signed by both the Supplier and the Authority. Dates when these outstanding items are to be "completed by" are to be agreed and shown.

Distribution

Original - Retained by the Supplier
Copies to - Border Force Overseeing Officer

Annex K: Reimbursable Expenses

The Supplier may claim the following Reimbursable Expenses at the rates set out below:

1. Travel

Standard rate of allowance for private cars

Initial 10,000 miles	40p per mile
Additional miles over the initial 10,000	25p per mile
Public transport rate	23.8p per mile

2. Hotel rates

London	£125 per night
All other locations other than London	£90 per night

Annex L: 19m GRP Patrol Boat tech 110416. CPV Paint Scheme

Document supplied separately

Annex M: CPV Anodes, Cathode Protection and bonding

Document supplied separately

Annex N: Jet anodes 521

Document supplied separately

Annex O: Carbon Centre Disc Assembly & Operation M034-0003-EN

Document supplied separately

Annex P: Cummins Onan Service

Document supplied separately