ANNEX "A"
Statement of Requirement

KEJIMKUJIK RESCUE BOAT

1. Overview

1.1. Objective

Kejimkujik National Park and National Historic Site has a requirement for one (1) emergency response boat for fresh water operation, complete with standard boating equipment as required by Transport Canada, specified emergency response accessories, and fitted trailer.

1.2. Background

Kejimkujik National Park and National Historic Site has a requirement to replace a 20+ years old fresh water emergency boat. This boat is used to rescue people in the water, on semi-submerged boulders or on rocky shores, along with their camping gear, paddling equipment and craft (canoe, kayak, etc.). The lake where it is mostly used is large (44 km^2) and can get very windy at times and develop 2-3 feet waves. The lake has dark waters and is shallow with many shoals and submerged rocks.

The current boat is a Boston Whaler Guardian 17, a 17-foot fiberglass double-hull craft filled with Styrofoam and outfitted with a 50 horsepower outboard. It has a central stand-up console with bum-rest, some storage compartments and a cargo capacity of 6 people. This requirement is to replace the existing boat with a similar-length boat but one that would be tougher, lighter and with greater capacity (10-12 people). The contractor will also provide all propulsion and operation systems, boating equipment and emergency response accessories as well as a fitted trailer as defined below.

2. Requirements

2.1. Scope of Work

The contractor will provide a non-pleasure craft as defined in the Canada Shipping Act 2001 (CSA 2001) complete with boating equipment, emergency response accessories and trailer that meet the specifications below. The boat must meet all the requirements of the Small Vessel Regulations (SVR) and Marine Safety Publication TP 1332 "Construction Standards for Small Vessels" (TP 1332). The boat must be fully operational upon delivery.

2.2. Constraints

2.2.1. The contractor must get approval from the Project Authority prior to final placement of all customizable items (e.g. position of console, extra seats, storage compartments, cables/wires/conduits, chartplotter, etc.).

2.2.2. After contract is awarded, the contractor will organize a meeting with the Project Authority at the boat assembly site so that the location of those items can be agreed upon in-situ. As required, more than one meeting can be organized to accomplish this.

2.2.3. The boat must be delivered fully operational **no later than March 31, 2022**.

2.3. Deliverables and Acceptance Criteria

2.3.1. Vessel:

2.3.1.1. 16-17 feet in length.

2.3.1.2. Hull made of a double-walled single piece of moulded polyethylene (PE) with additional PE foam inside for added buoyancy. PE must be high grade and UV

stabilized.

2.3.1.3. Empty hull weight no more than 450 kg.
2.3.1.4. Minimum stability: ISO design Category C.
2.3.1.5. Minimum load capacity at ISO design Category C: 10 people
2.3.1.6. Overall color, in order of preference: white, grey or red.
2.3.1.7. Drop-down bow for easy shore boarding and disembarking (examples in Annex 1).
2.3.1.8. Railing from bow to mid-ship.
2.3.1.9. Arch frame installed aft to elevate and support navigation and emergency equipment (examples in Annex 1).
2.3.1.10. Bow eyelet for towing and winch loading purposes.
2.3.1.11. Two (2) transom eyelets for securing the craft to the trailer.
2.3.1.12. Exposed deck and top of bulwarks must offer anti-slip surfaces.
2.3.1.13. Deck must be free of protruding parts such as fasteners, cables, wires, etc.
2.3.1.14. Four (4) mooring cleats, two (2) aft and two (2) fore, starboard and port) sides.
2.3.1.15. Compliance Notice affixed on the boat as per the Compliance Notices sections of the SVR and TP 1332.

2.3.2. Motor:

2.3.2.1. 4-stroke, 60 Horsepower outboard.
2.3.2.2. Motor protected from freshwater corrosion as appropriate.
2.3.2.3. Motor-guard / light tow-bar (examples in Annex 1).
2.3.2.4. Two (2) appropriately-sized and pitched aluminum propellers for the boat's maximum load capacity.
2.3.2.5. Propeller and lower-unit protected with stainless steel guard (examples in Annex 1).
2.3.2.6. Safety tilt mechanism in case of contact with submerged obstacles.
2.3.2.7. Portable marine-grade gas tanks totaling 40-50 Liters, each unit no less than 20 Liters and fitted with fuel gauge.
2.3.2.8. All necessary motor rigging.
2.3.2.9. Steering system and console.
2.3.2.10. Steering and control conduits/wires/cables must be positioned out of the way so as not to pose tripping hazard.
2.3.2.11. 2-battery system with battery switch. Deep cycle marine-grade appropriately-sized batteries. Batteries and switch tucked away but easily accessible.
2.3.2.12. Controls must include key-ignition switch mounted on console, and kill-switch key with lanyard.
2.3.2.13. Three (3) ignition keys and three (3) kill-switch keys with lanyard must be provided.

2.3.3. Boating Equipment:

2.3.3.1. All necessary navigation and emergency equipment as required under SVR and TP 1332.
2.3.3.2. Central stand-up console, driver seat or bum-rest.
2.3.3.3. Console equipped with 3-sided windshield that extends to 1.6m above deck.
2.3.3.4. Console equipped with all appropriate motor indicators recommended by the manufacturer, including at a minimum:
- Tachometer
- Voltmeter
- temperature gauge with visual/audible alarm
- oil pressure gauge with visual/audible alarm
- tilt/trim indicator

2.3.3.5. Console equipped with visual/audible high bilge alarm, one (1) marine-grade 12-V accessory outlet and one (1) marine-grade USB port.
2.3.3.6. Console equipped with marine-grade float-style half-sphere magnetic compass adjustable for declination (example in Annex 1).

2.3.3.7. Console equipped with minimum of two (2) handholds, at least one on each side.
2.3.3.8. Appropriately-sized electrical Panel with electric equipment switches mounted on console.
2.3.3.9. All electric equipment to be installed so as not to block other equipment from operator's view, and not interfere with other equipment (e.g. magnetic compass).
2.3.3.10. Automatic/manual Bilge pump, controls mounted on console.
2.3.3.11. All electric indicators, controls, dials, switches must have night illumination and be identified clearly with permanent markings (e.g. bilge pump, search light, oil pressure gauge, etc.)
2.3.3.12. Fitted cloth-type snap-on console cover to protect the entire console and controls from top of windshield to deck.
2.3.3.13. Affixed benches in addition to the driver seat to accommodate four (4) seated passengers.
2.3.3.14. Minimum 2 watertight affixed compartments totalling no less than $0.1m^2$ of storage space.
2.3.3.15. Danforth-style anchor kit, appropriately-sized for the fully-equipped boat.
2.3.3.16. Lowrance HDS-9 Live fishfinder/chartplotter with Active Imaging 3-in-1 transducer, or equivalent (see section 6).
2.3.3.17. Chartplotter installed on an swing-arm style mount to allow for operator adjustments (examples in Annex 1).
2.3.3.18. 2 quality emergency aluminum paddles, mounted out of the way but easily accessible.
2.3.3.19. One (1) quality aluminum telescopic boat-hook (4.5-12ft), mounted out of the way but easily accessible.
2.3.3.20. Reboarding ladder, affixed or portable, that can extend 60cm under water. If portable, must be stowed out of the way but within easy reach.
2.3.3.21. All equipment installed out of the way but within easy reach. Final location of all equipment to be discussed with Project Authority during site visit.

2.3.4. Emergency response accessories:
2.3.4.1. One (1) 360˚ blue emergency beacon, mounted above head (arch or mast) and controls mounted on console, examples (examples in Annex 1).
2.3.4.2. One (1) electric air horn mounted above head, controls on the console.
2.3.4.3. 360˚ rotation search light with vertical tilt, mounted above head and control mounted on console. 400000 candelas as a minimum.
2.3.4.4. A total of 60 inches of marine-grade LED floodlight bars installed on the Arch frame: 36 inches facing fore and 12 inches each facing aft, port and starboard. All units to produce 24000 lumens per foot of light barand be white in color temperature. Each side individually controlled from switches on the console.
2.3.4.5. One man overboard lifesaver buoy with mounting bracket installed on the arc frame.
2.3.4.6. One (1) professional-grade throwbag with buoyant 75m line (3/8-in dia).
2.3.4.7. All equipment installed out of the way but within easy reach. Final location of all equipment to be discussed with Project Authority during site visit.

2.3.5. Trailer:
2.3.5.1. Bunk style with polyethylene boards and keel rollers.
2.3.5.2. Rated 20% above the wet weight of the fully-outfitted vessel.
2.3.5.3. All required hand cranks, cables, rollers, pulleys, straps and other equipment necessary to launch, retrieve and transport the boat efficiently and safely.
2.3.5.4. submersible sealed LED lights.
2.3.5.5. Tongue jack with wheel.
2.3.5.6. Heavy duty stand-on fenders.
2.3.5.7. 2-in ball hitch assembly.
2.3.5.8. 7-pin electrical connector.
2.3.5.9. trailer post guide-ons with a minimum height of 120 cm above frame.

2.3.5.10. Trailer with appropriate number of strategically placed eyelets to easily secure the boat on the trailer.
2.3.5.11. Supply all necessary and appropriately-sized ratchet-straps to secure the boat on the trailer.
2.3.5.12. Supply an appropriately-sized cloth-style cover to protect the boat when in transit/storage. Cover supplied with all attachments/hardware to be secured to the boat.

2.3.6. Additional Deliverables:
2.3.6.1. All documentation (e.g. user and maintenance guides, warranty information, etc.) associated with equipment installed (e.g. hull, motor, chartplotter, etc.).
2.3.6.2. Spare parts that come with the equipment installed where applicable.
2.3.6.3. Record of the total weight of the fully-equipped boat as delivered.
2.3.6.4. Pre-departure procedures and checklists specific to this boat and its equipment.
2.3.6.5. Normal operating information and procedures.
2.3.6.6. Recommended preventive maintenance.
2.3.6.7. Complete troubleshooting procedures.
2.3.6.8. Completed Detailed Compliance Report (DCR) of the Transport Canada Small Vessel Compliance Program (SVCP), as provided by the Project Authority. The Project Authority will identify the specific sections that the contractor will have to complete.
2.3.6.9. Contractor's Declaration of Conformity as per the Compliance Notices section of the SVR.
2.3.6.10. Two (2) copies of the bill of sale.

3. Shipping

3.1. Prior to and in preparation for shipping:
3.1.1. the vessel must be cleaned and preserved.
3.1.2. the vessel must be secured to its trailer, cleaned, fitted with appropriate protection and covered in accordance with the provisions of this section. All parts of the vessel must be cleaned before wrapping it for shipping. The bilges must be dry and free of oil and the fuel tanks must be filled, with fuel stabilizer added.
3.1.3. the propulsion system must be preserved in accordance with the manufacturer's recommendations for storage of up to one (1) year in an environment that will be subjected to freezing temperatures.
3.1.4. batteries must be disconnected. A warning plate is to be tied to the steering wheel with a wire indicating that the vessel has been protected for shipping and storage and must not be started until the propulsion machinery has been reactivated.
3.1.5. All contact points with the vessel are to be padded.

4. Delivery

The boat must be delivered **no later than March 31, 2022** to the following address at the cost of the contractor:

Kejimkujik National Park and National Historic Site
3005 Main Parkway
Maitland Bridge, NS
B0T 1B0

5. Training

The Contractor will offer up to three (3) specific training sessions to staff for the use and operation of the constructed vessel and its components. Scheduling will be coordinated by Project Authority.

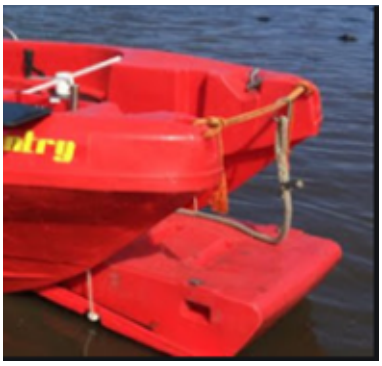
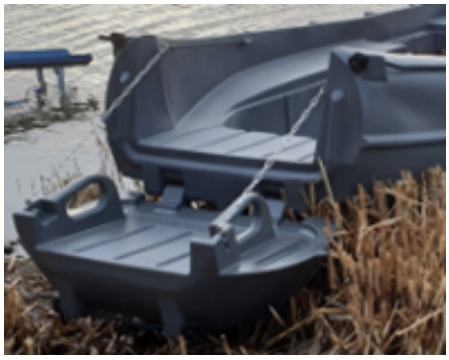
6. Equivalencies:

6.1. Chartplotter equivalent:

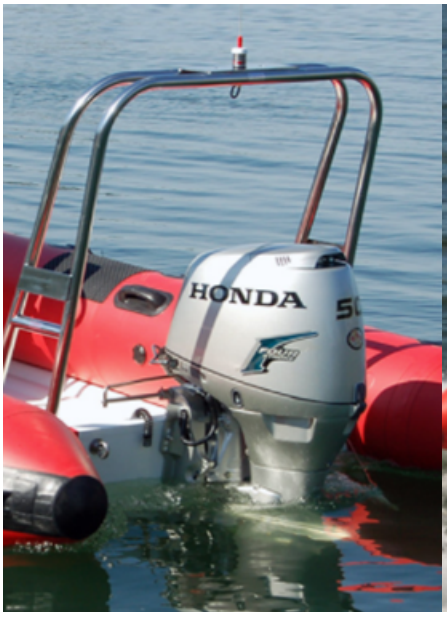
9-in high-definition full-color screen
CHIRP/down/side and 3d-structure scanning including transducer
Ability to upload non-proprietary base-data (geoPDF, geoTIFF, etc.)
Quick cable and mount connections for easy removal

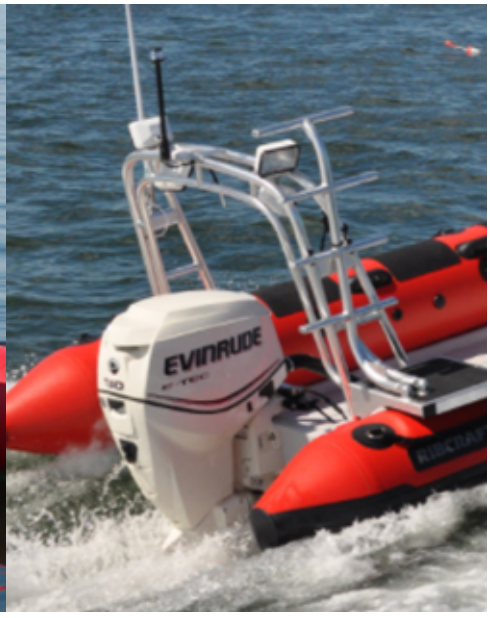
Annex 1 : Examples of specific features and equipment

Drop-down bow:

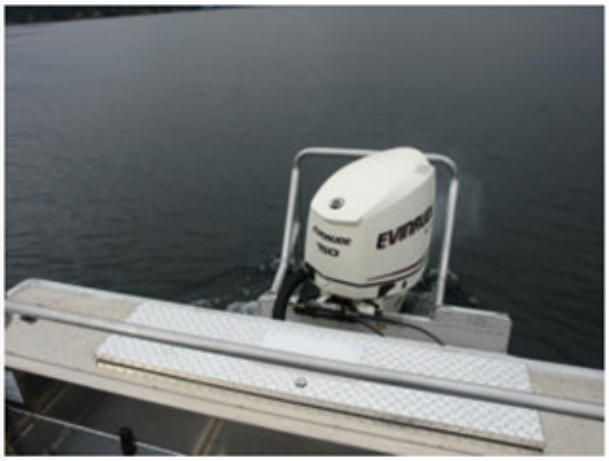
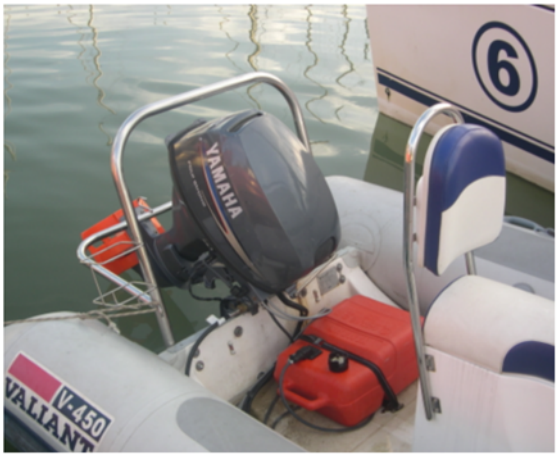



Arch frame:

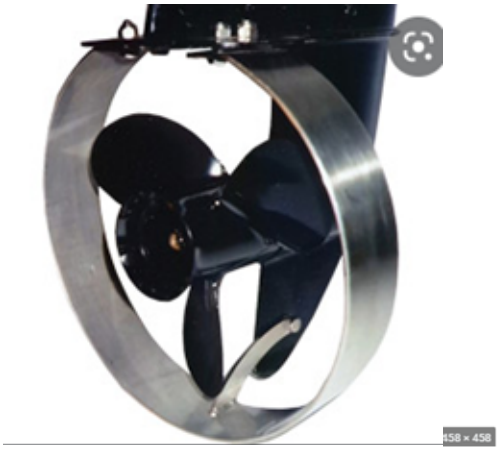


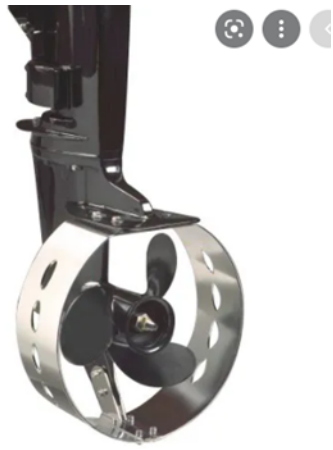


Motor guard:

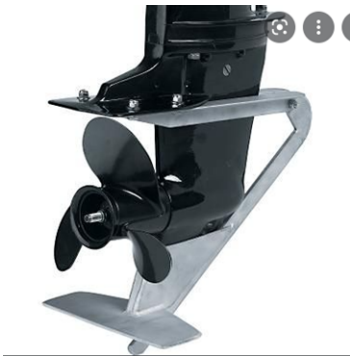



Propeller protector:

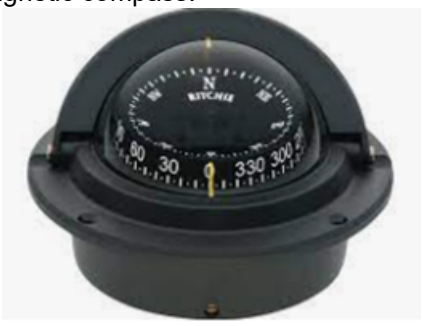




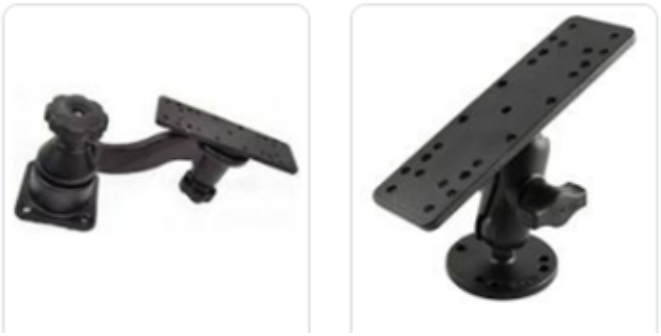
Lower Unit protector :



Float-style half-sphere magnetic compass:



Chartplotter swing-arm mount:



360 emergency beacon: