STATE OF ALASKA

Department of Public Safety
Division of Administrative Services

Aluminum Patrol Skiffs Fabrication

RFP 2022-1200-4925

Amendment #2

9/10/2021

This amendment is being issued to extend the deadline for proposals and identify changes to the RFP.

Important Note to Offerors: You must sign and return this page of the amendment document with your proposal. Failure to do so may result in the rejection of your proposal. Only the RFP terms and conditions referenced in this amendment are being changed. All other terms and conditions of the RFP remain the same.

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_____
COMPANY SUBMITTING PROPOSAL

_____
AUTHORIZED SIGNATURE

_____
DATE

Changes to the RFP:

Change 1: Attachment One: Scope of Work Specifications, Section 1 Vessel 1: Enforcer Skiff (Juneau) is replaced with the Updated Scope of Work Specifications: Section 1 attached to this amendment. The Updated Scope of Work Specifications: Section 1 shall be followed in order for a proposal to be found responsive. Attachment One: Scope of Work Specifications Section 2 remains the same.

Change 2: The deadline for proposals is Wednesday September 29, 2021 at 4:30pm AKST

UPDATED SCOPE OF WORK SPECIFICATIONS: SECTION 1

SECTION 1. VESSEL 1: ENFORCER SKIF (JUNEAU)

SEC. 1.01 SCOPE OF WORK

The Department of Public Safety, Division of Administrative Services**,** on behalf of the Alaska State Troopers Vessel Section, is soliciting proposals for the new construction of a high-quality seaworthy vessel required for operations aboard the Patrol Vessel Enforcer homeported in Juneau, Alaska. The Enforcer conducts a multitude of operations in the south-east Alaska throughout its entire island chain. This vessel will be launched via crane from the main back top deck of the P/V Enforcer and transport personnel, conduct Law Enforcement and Search and rescue under the guidance of the Alaska Wildlife Troopers. The Following criteria will identify the scope of work required of such a vessel.

The boat shall have a center console T-Top. The contractor shall submit general assembly three view drawings of the vessel (including interior layout) with the bid for review and approval by AWT. The provided drawings should be produced or approved by a registered Naval Architect and details/scantlings must be designed to ABS 1975 rules for building aluminum vessels or Lloyd's Special Service Craft, as a minimum.

Vessel Performance Standards

The vessel and its components shall be suitable for operation everywhere in Alaska waters and will be serviced and under the guidance of a larger patrol vessel platform. Vessel must be capable of operating in the offshore waters indicated in the above description and in all seasons. The vessel must successfully operate in the following environmental conditions: Ambient air temperatures: 80 degrees F to -10 degrees F, water temperatures between 55 degrees F and 30 degrees F, wind speeds between 0 and 25 knots, and wave heights between 0 and 8 feet.

- **Hull:** Welded aluminum. In the general design of a mono hull deep V with the ability to operate in seas up to 8ft.
- **T-Top:** A fixes and permanent T-Top is the minimum requirement. Canvas or equivalent sides are required for a temporary enclosure during adverse weather.
- **Length:** Required length shall be no less than 21 feet length overall and no greater than 23 feet, including fenders and attachments.
- **Weight:** Shall not exceed 4500 pounds
- **Beam**: minimum of 8.5' maximum of 10' with collars or rub rails attached.
- **Freeboard**: Vessel minimum freeboard will be noted in the proposal and shall be measured from the top of the continuous watertight deck to the water, at the lowest point on the deck edge.
- **Stability:** Vessel must pass a simplified stability test, per USCG Subchapter T, for worst case load condition with the vessel operating in exposed waters.
- **Cargo:** The vessel must be able to carry deck loads of up to 3500 lbs.
- **Propulsion**: Twin 115hp Yamaha outboards capable of achieving 35kts.
- **Speed**: Cruise speed to be a minimum of 30 knots.
- **Range:** At a minimum 180nm, hull design and power plant. Vendor will provide and estimated range based on the available parameters.

- **Draft:** Not to exceed 24 inches.

Vessel Construction Standards

This attachment will identify the specifications required by the State of Alaska, Department of Public Safety, Alaska Wildlife Troopers (AWT), Bureau of Wildlife Enforcement (ABWE), for the purchase of one (1) new 23 foot deep "V" aluminum rigid hull boat equipped with closed cell foam collar. Collar shall be of durable construction with UV protection.

The structure of the vessel shall be simple and robust in nature and shall be constructed of 5086 Marine Grade aluminum plate or similar equivalent to be approved by the project manager with all welded construction. Material certificates shall be provided. ABS welding standard for aluminum vessels and ABYC standards for a vessel of this size apply. Where the state has questions or concerns about structural design, the Contractor shall provide an engineering analysis of the area in question.

The boat shall be constructed of highly durable marine grade materials, suitable for commercial law enforcement applications in Alaska waters. All components provided by the contractor shall be new. The delivered boat is to comply with all United States Coast Guard (USCG) requirements. The following specifications shall be included on vessel by the contractor.

Extra structure shall be provided in areas of high stress. As appropriate for normal good ship building practices, stress relieving curves/radii and brackets shall be provided in areas of high stress. Insert plates shall be provided at points of stress concentration and hull penetration. Doubler plates shall not be substituted for insert plates. This vessel will also be hoisted on and of a larger vessel and must have four reinforced hoisting points strategically located to ensure a level or near level hoist.

Other structural details (such as manholes, limber holes, rat holes, water and oil stops) shall be incorporated into the vessel's structure to provide proper access, drainage of water, or proper functioning of tanks and systems.

Workmanship shall be to a high standard. Vessel structural fit-up must be accurate with no gaps between plate and supporting structure. End connections must be clean and free of rough edges. Structural connections, relief holes, radiuses, and bracketing must be provided so that there are no areas of concentrated stress in the hull.

The Contractor shall take whatever means are necessary to avoid inducing stain and deformation into the vessel from welding. This includes modifying welding procedures and welding and assembly sequencing. Evidence of minor structural deformation or cracking will be cause for a partial refund to the state. Evidence of major structural deformation or cracking will be cause for the state to terminate the contract for negligence. All internal and external spaces of the vessel shall be accessible for inspection and maintenance. Inspection hatches shall be waterproof, quick acting, non-plastic hatches.

All equipment installed must have reasonable access for maintenance (this will be verified at sea trials).

Questions about space and machinery access must be addressed before construction or installation of component in question.

Installation of metals other than aluminum shall be strictly controlled. Ferrous metals shall be minimized to only those required of specified equipment and shall not be installed in the vessel structure, mechanical, or electrical systems unless the Contractor receives prior approval from the state. Non-aluminum fasteners shall be stainless steel. Where non-aluminum metal and aluminum must be connected, such connection shall occur through a dielectric kit, or some other means to eliminate or minimize galvanic corrosion. The state shall reject, and the Contractor shall replace, any dissimilar metal installation the state believes may be susceptible to galvanic corrosion.

Hull:

- Hull plate shall be .250" 5086 aluminum minimum. Side Sheet shall be .190" 5086 series aluminum minimum. Deck Plate Shall be .190" 5086 series aluminum minimum, Superstructure shall be .190" 5086 series aluminum minimum, Other plate shall be 5086 H116 series aluminum minimum.
- Exterior of hull will have a FAST closed cell foam buoyancy stabilizer that starts at the portside transom wraps around the bow and ends at the starboard side transom
- Collar will be blue as closely matching the P/V Enforcer as possible (color coding will be provided)
- Bow will have at a minimum a 1-foot flat Standing Area area that no metal will extend past
- Usable gasoline capacity shall support a minimum 200nm range at optimum cruising speed
- Minimum deadrise at transom shall be 22 degrees.
- Deadrise at entry 38 or 48 Degrees
- Continuous welds shall be utilized on all hull chines.
- Suitable bolt on hull zincs shall be installed to prevent corrosion.
- Hull air voids shall support the fully equipped vessel at the surface in a swamped or overturned condition with no collar system installed. Appropriate drain plugs shall be installed to drain void areas to check for water presence and airtight integrity. Hull voids shall be pressure tested to in-sure integrity.
- Outboard engines shall be on brackets constructed outside transom & transom rated for twin engines.

DECK:

- Deck shall be connected watertight to hull.
- Self-bailing scuppers shall be provided through transom, with inside accessible plugs.
- Provide a welded, heavy duty towing eye on bow with SS insert.
- Six (6) 10" aluminum tie up cleats welded to decking. Located at the bow amidships and stern of port and starboard sides
- All exterior decks and walkways shall have adhesive nonskid. Adhesive nonskid shall be no larger the 24 inch by 24 inch pieces with no greater than 2" gap between each pieces
- Removable waist high bow handrail to accommodate boarding other vessels.
- Aluminum outboard motor guard of welded pipe and securable dive ladder.
- Lockers on transom.
- Tie down eye located between outboards on exterior of transom. (for securing vessel to deck of mothership)
- Removable davit and electric pot puller mounted on Port side of vessel shall have a minimum clearance of 45 inches measured from the bottom of the pot pullers shiv to the highest point of the vessel located under the pot puller. Maximum highest point shall not exceed the top of the house.

Davit shall extend the pot puller 24-30 inches away from the vessel. Both davit and pot puller shall be capable of working gear weighing up to 100lbs

- Bow steps to standing area on bow cap rail.

Standing area on bow cap rail shall comfortably support an adult

Vessel Machinery and Systems

Propulsion:

- Provide and install two 115 hp four stroke Yamaha outboard engines of current year. One engine counter rotating.
- Provide and install Yamaha Twin-Engine Binnacle Control
- Provide and install CL7 Touchscreen display
- Provide and install MFD interface to Garmin
- Provide and install appropriate stainless-steel propellers on engines.
- Provide and install volt meters, trim gauges, fuel gauge, hour meters, and horn.

Provide and install appropriate marine hydraulic steering station and all associated components.

Vessel Controls:

- 1 control and steering station with wireless electronic controls.

Fuel systems:

- Number of fuel tanks and locations to be determined by the manufacturer for suitable stability. Tanks to have sediment/water collection sumps with drains. Minimum 100gal capacity total.
- Tanks to be fitted with 2" fills, 1 ½" vent and electric fuel level sender.
- Only if necessary; Proper ventilation system to be installed in any void spaces that have fuel present and other machinery to include but not restricted to vent blowers, alarms, indicators and control panels for all systems.
- Racor fuel water separator installed in a location that is easily serviceable.

Hydraulic Systems:

- Any Hydraulic systems shall include all related valves, hoses fittings and supplies to make each item fully functional. Hydraulic systems shall be simple and easy to maintain. All exposed fittings to have Densel tape covering. All exposed hoses to have chafe covering.

Bilge system:

- If necessary, any watertight compartment is to have a separate 2000 GPH bilge pumps with automatic float switches and console mounted 3-way on –off-manual switches with alarms.
- Bilge pumps must be easily accessible for maintenance and removal. A minimum of 1" discharge hoses to be used to aluminum through hull fitting above water line with check valves and ball valves. (See wash down pump).

Fire and Safety systems:

- Portable fire extinguisher to be mounted in accordance with USCG rules.

- USCG APPROVED Life ring with line and brackets.
- USCG APPROVED flare signaling kit.

Electrical system:

- Provide and install Appropriate 12VDC marine breaker panel for all equipment, including 4 spare breakers, with master on/off breaker. Located in an area that they cannot accidental be shut off and/or with a cover plate that still allows switches to be used if needed.
- Provide and install 12VDC USB Charging outlet on the port and starboard side
- Provide and install and portable plug-in spotlight (handheld) and it's plug in
- Provide and install house battery bank sized for electrical load.
- Provide and install engine batteries that meet manufactures recommendations.
- Provide and install automatic charging relay for battery banks.
- Provide and install 110v marine grade battery charger.
- Provide and install one (1) 12 VDC self-parking windshield wiper with speed control.
- Provide and install one (1) lighted compass.
- Provide and install USCG LED approved navigation lights for running and anchoring.
- Provide and install Two (2) 12 VDC LED deck floodlights, bow mounted in a location that does not impede stepping on and off the bow.
- Provide and install a blue flashing light bar that can be seen from 360 degrees
- Provide and install one 12VDC marine grade spotlight with controls. Mounted on T-Top
- Two (2) Spare 12v outlets in helm area (lighter type).
- Install AWT police radio (owner provided)

Lighting: All exterior lighting and navigation lights are required to be LED.

- Navigation lights of the standard for a marine vessel of size and duty per the USCG rules.
- Deck lights:
    - One (1) light mounted on aft of console cover to illuminate the aft deck
    - One (1) light mounted on mast or top of console cover to illuminate forward and outboard.
    - One (1) each Revolving or Flashing Blue and red law enforcement lights 8" high power 12VDC.
    - All lights to have console control and clearly labeled.

Electronics: All electronics to be 12 VDC with a separate and dedicated distribution panel on bridge and each item to have separate circuit/breaker panel lighted for nighttime operations. All components are to be supplied by the owner with necessary mount brackets, wires, antenna wires and antennas for the service intended, to be installed by the Contractor. Proposal should include cost to install the following items. Contractor will supply the vast electronic package but will confer with manufacture to ensure compatibility with proposed systems.

- VHF: ICOM 506 AIS capable VHF-FM transceiver (Contractor supplied)
- GPS: one 8612 XSV Garmin chart plotter (Contractor supplied)
- Radar: Garmin phantom 18 (Contractor supplied)
- Depth sounder: Through hull Garmin that functions with hull design.

- One (1) VHF to have remote deck speaker.

Note:

- Provide and install approved sized Garmin electronics for center counsel shall include Garmin Phantom series radar, heading sensor, GPS 24xd antenna, ICOM 506 AIS capable VHF-FM transceiver, transducer with side scan, Garmin panoptic Lives Scope System, and GPSMAP Chart plotter with split screen functions capable of integrating with all the listed products.
- Provide and install all wiring, network cable, NEMA 2000, and any other connection components required

- Hailer: builder to identify in proposal and provide (Contractor supplied)
- Compass: electronic and standard magnetic (Contractor supplied)
- Horn: electric (Contractor supplied)
- Police radio with antenna (State supplied)
- All switches on the vessel to be clearly marked with professional style labels.

Console area heating and insulation:

- A forced air-heating system to be installed to heat console area during times when temporary enclosure is utilized including the windshields. This unit to be a Webasto unit or equal.
- The heat system is to be sized to keep the enclosure area warm during winter ambient temperatures.

Miscellaneous equipment:

- One (1) galvanized bunk type trailer shall be supplied with boat. Trailer shall be with stainless steel disc brakes (King or equivalent). Trailer shall be set up and properly fitted to boat hull.
- Aluminum cradle padded and designed to form fit the hull, cradle will include safety bunks on the starboard side. Safety bunks will be padded and need to be able to withstand the weight of the vessel as they will act as swing stops during craning operation. Cradle and safety bunks padding will be abrasion resistance and made of a material that will not damage. Actual height and dimensions to be determined based on the vessel design proposal. Easily bolted to the mother ship deck and accommodate skiff hull configuration.
- Contractor shall deliver boat on trailer to a shipping company for shipment to Juneau, Alaska. Shipping shall be at vendor's expense and noted in the proposal. Cradle will be shipped with the vessel.
- The contractor shall provide guarantees for the workmanship, USCG compliance, interface of hardware capabilities, all equipment booklets, operators handbook, and appropriate sea testing of the boat.
- Any equipment or procedures of a critical nature shall be placarded in a very visible manner. All breakers and switches/valves shall be labeled.

Seating:

The accommodation of this vessel shall have seating to comfortably accommodate up to two (2) people at the console with the controls on the starboard side. (2) Two each heavy-duty folding Shox type chair mounted, with footrests side by side. Seats will be made of water-proof material.

The boat shall be designed to carry at least 3500 pounds, combined weight, 12 passengers, gear, shellfish pots, or other cargo in addition to full fuel and installed equipment.

Aft of T-top fold down Shox seating option for an additional 2 seats to be provided in design

Console:

- Appropriate number of fixed windows for good all-around visibility, of a material that does not impede vision while wearing polarized glasses.
- No Rails other than removable waist high rail on bow.
- Defrost vents that work in conjunction with webasto air top.
- Heating vents that face operators
- Area that can accommodate a 14-inch-long, 9.5-inch-wide, and 1inch deep clip board while being used for writing.
- Dedicated watertight, lockable area to store 2 long rifles up to 38" in length.
- Provide and install LED overhead 12v light, red and white capable.
- Folding footrest
- Cup holders on port and starboard side
- Soft sides protections that are completely removable from the vessel. Should provide protection from elements while operating in adverse weather conditions. In addition, should reasonably hold heat from the center console heat source.

Safety Equipment

- Two (2) each Survival suits, USCG Approved (owner provided).
- Medical kit (owner provided).
- Tools kits (owner provided).
- Offshore Flare kit. USCG Approved.
- For all items that are owner provided storage space is to be provided on the vessel.
- Life Ring with line and bracket with light.

Windows and doors

- Windows should be well explained in proposal and identified with a 3-D rendering.
- Windows shall be high quality marine grade, extruded frame, bolt in, and shall be fully watertight. Sea Glaze aluminum frame or equivalent. The State will witness a high-pressure hose test on all windows during sea trials. Any windows that fail shall be fully removed and replaced with new windows.
- The only doors should be identified with the temporary enclosure proposal.

Miscellaneous Items

- All cabinets must have the ability to be locked.

Deck Equipment

Anchor/Anchor winch/Anchor locker:

- Bruce/Claw or Danforth style Galvanized Anchor of appropriate size for vessel.
- Minimum of 50’ of galvanized 3/16” chain and 300’ of 3/8” spectra anchor line.
- Anchor locker to store and secure, Anchor, and the ability to secure the anchor in place and ready for use.

Deck Hatches:

- Any deck hatches are to be of such size and shape that allow for easy access to the space. All hatches to have gutters to allow water to drain away from the opening.
- All hatches for storage spaces are to be of sufficient size and shape to make best use of space. They are to be flush mounted and watertight (Freeman Hatch or equal).

Mooring and Fender equipment:

- Six (6) 10” aluminum tie up cleats welded to decking.
- The Aft cleats are to be of sufficient strength to tow from or an additional aft towing bit.
- There shall be a cleat at or very near anchor winch.
- The vessel shall have a second, lower course of rub rail, to be located at the height of the widest point of the vessel running from bow to stern and the ability to absorb the shock of standard mooring situation as well as underway approaches on other vessels

Deck:

- Deck shall be connected watertight to hull.
- Self-bailing scuppers shall be provided through transom, with inside accessible plugs.
- Provide a welded, heavy duty towing eye on bow with SS insert.
- Six (6) 10” aluminum tie up cleats welded to decking.
- All exterior decks and walkways shall have adhesive nonskid. Adhesive nonskid shall be no larger the 24” by 24” inch pieces with no greater than 2” gap between each piece
- Removable waist high bow handrail to accommodate boarding other vessels.
- Aluminum outboard motor guard of welded pipe and retractable dive ladder.
- Lockers on transom.
- Tie down eye located between outboards on exterior of transom. (for securing vessel to deck of mothership)
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- Bow steps to standing area on bow cap rail.

Standing area on bow cap rail shall comfortably support an adult

Paint, Prep and Markings

- Paint Scheme, where applied, to match existing vessels (samples to be provided by the state).
- All exterior walking/work surfaces to have non-skid material.
- The State will supply all decals to be applied to house and hull.
- It is not intended that the house or the hull to have any paint on it. Other than the deck non-skid areas

LIFTING REQUIREMENTS

- Four (4) ¾" plate lifting eyes to support a fully equipped vessel. Location lifting eye installation to be confirmed with Boat Officer IV and Vessel Tech II of P/V Enforcer before installation.
- Vessel will regularly be craned on and off mothership. From deck of mothership to top of crane is measured at 17ft of vertical lift space. Vessel will need to clear cradle of roughly 2ft before being swung over this side. Webbing Lift straps will be uses for hoisting the vessel. Lifting eyes will need mounted in a way that the T-Top counsel is not pinched, without the use of a spreader bar.
- Lifting system to be approved by engineering representative of company in conjunction Boat Officer IV and Vessel Tech II of P/V Enforcer

MISCELLANEOUS

- Boat shall be made available for sea trials by an Alaska Wildlife Trooper representative prior to final delivery.
- Deck cradle for skiff will have design and dimension provided for approval to Vessel Section supervisor, Boat Officer IV and Vessel Tech of P/V Enforcer, Materials for construction will be .250" 5086 aluminum minimums with rubber bunks.
- One (1) galvanized bunk type trailer shall be supplied with boat. Trailer shall be with stainless steel disc brakes (King or equivalent). Trailer shall be set up and properly fitted to boat hull.
- The contractor shall provide guarantees for the workmanship, USCG compliance, ABYC compliance, interface of hardware capabilities, all equipment booklets, operators handbook, and appropriate sea testing of the boat.
- Any equipment or procedures of a critical nature shall be placarded in a very visible manner. All breakers and switches/valves shall be labeled.
- Electrical schematics shall be provided.
- Interconnection schematics shall be provided for electronics.
- Tankage and Plumbing Schematics shall be provided

Manuals and Documentation

- Contractor shall supply: Two (2) complete sets of all documents, instructions, provided by the manufacturers of the installed equipment and machinery.
- Contractor shall supply: Two (2) complete sets of all drawing and schematics used during the construction of the vessel, upgraded to "As-built" status, including all electrical and piping systems and the written results of the simplified stability test.
- Contractor shall supply: Any information regarding trials and tests of the vessels and its systems to be provided to the owner.

Sea Trials

- Extensive Sea trials to be accomplished starting with 1-2 day system checks dockside.
- Separate sea trial for up to two (2) days to be provided; this will not include any overnight trial.