

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. Contract ID Code
Page 1 of Pages 6

2. Amendment/Modification No. 0020	3. Effective Date Sep 19, 2008	4. Requisition/Purchase Req. No. NAAN8400-8-49381	5. Project No. (if applicable)
6. Issued By DOC/NOAA/AGO STAFF OFFICE & EXTERNAL CLIENTS, AD 1305 EAST WEST HIGHWAY, RM 7601 SILVER SPRING, MD 20910 PAUL REED 206-526-6034		7. Administered By (if other than Item 6) SEE BLOCK 6	

8. Name and Address of Contractor (No., Street, County, and Zip Code) VT HALTER MARINE, INC P.O. BOX 1328 PASCAGOULA MS 395681328	Vendor ID: 00001215 DUNS: 118359939 CAGE: 3BJ86	(X)	9A. Amendment of Solicitation No.
			9B. Date (See Item 11)
		X	10A. Modification of Contract/Order No. DG133E-04-CN-0036
			10B. Date (See Item 13) Oct 20, 2005
Code	Facility Code		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers is extended is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
 (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. Accounting and Appropriation Data (if required)
14.08.E2PF1SW.PVT.0084.060801022.0808000400000000.31140000.000000 \$ 734,521.00

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACT/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(x)	A. This change order is issued pursuant to: (Specify authority) The changes set forth in item 14 are made in the Contract Order No. in item 10A.
X	I.1 52.243-1 Changes - Fixed Price
	B. The above numbered Contract/Order is modified to reflect the administrative changes (such as changes in paying office, appropriation date, etc.) Set fourth item 14, pursuant to the authority of FAR 43.103 (b)
	C. This supplemental agreement is entered into pursuant to authority of:
	D. Other (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

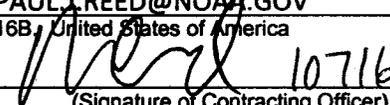
14. Description of Amendment/Modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Modification 0020, under Contract DG133E-04-CN-0036, is hereby issued to VT Halter Marine Inc. as a unilateral modification for directed work under the authority of Contract Section I.1, FAR 52.243-1, Changes - Fixed Price, to accomplish the following:

A. Implement Engineering Change Proposals 011 and 016 under CLIN 0004.

1 In accordance with the clause of the subject contract entitled "CHANGES-FIXED PRICE", this Modification No. 0020 implements Engineering Change Proposals 011 and 016 under CLIN 004 as follows:

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. Name and Title of Signer (Type or Print)	16A. Name and title of Contracting Officer (Type or Print) PAUL REED CONTRACTING OFFICER PAUL.J.REED@NOAA.GOV	206-526-6034
15B. Contractor/Offeror (Signature of person authorized to sign)	15C. Date Signed	16B. United States of America  (Signature of Contracting Officer)
		16C. Date Signed Sep 19, 2008

1.1 For ECP 011, Electrical Equipment Racks and Chart Lab Arrangement

Change the relevant SOR sections as follows:

320c. Scientific Uninterruptible Power System**From:**

Power for one top-to-bottom outlet strip with standard NEMA 5-15R outlets at approximately 150 mm intervals, shall be provided at each electronic equipment rack foundation and workstation location. Each source shall be fed by a 15 amp circuit breaker.

To:

Power for one top-to-bottom outlet strip with standard NEMA 5-15R outlets at approximately 150 mm intervals, shall be provided at each electronic equipment rack and workstation location. Each source shall be fed by a 15 amp circuit breaker.

691a. General**From:**

The location of equipment shall provide an efficient working arrangement. Workbenches, lockers, and other tall equipment shall be fastened to bulkheads or other structure or otherwise stiffened to provide lateral stability. Electronic equipment racks shall be securely mounted top and bottom using shock mount hardware. Shock mounts shall be sized for the weight of the rack plus approximately 200 kg of installed equipment.

To:

The location of equipment shall provide an efficient working arrangement. Workbenches, lockers, and other tall equipment shall be fastened to bulkheads or other structure or otherwise stiffened to provide lateral stability. Electronic equipment racks shall be securely mounted top and bottom using shock mount hardware such as Christie & Grey Limited model 17/1609/1/55 and X.070. Shock mounts shall be sized for the weight of the rack plus approximately 200 kg of installed equipment.

691b. Charting Laboratory**From:**

The Charting Laboratory outfitting and miscellaneous equipment shall be provided in accordance with Table 691-1. Foundations for racks, to house electronic equipment, shall be provided. Bulkhead mounted cabinets in the Charting Laboratory shall be mounted on the Unistrut system and shall be capable of being removed from the space through doors. Contractor provided cables into the space shall be located in overheads above foundations.

To:

The Charting Laboratory outfitting and miscellaneous equipment shall be provided in accordance with Table 691-1. Six (6) full height 19 inch electronic equipment racks such as Lowell Model L279-70* and associated panels & hardware, to house electronic equipment, shall be provided. Bulkhead mounted cabinets in the Charting Laboratory shall be mounted on the Unistrut system and shall be capable of being removed from the space through doors. Contractor provided cables into the space shall be located in overheads above foundations.

As a result of this ECP 011, the total value of CLIN 0004 increased by \$74,692.00.

1.2 For ECP 016 A-frame SWL change and add General Purpose Winch Requirement.

This change incorporates the results of Special Study 010 and pays for the implementation in the detail design and construction CLIN.

The applicable SOR changes are as follows:

070f. Accommodations, Ship and Mission Spaces: Mission Features, Paragraph d.

From:

d. Aft Control Station (ACS) shall be either a part of the Bridge or an enclosed space located with visibility of A-frame, winches and crane, the Aft Working Deck and the starboard bridge wing. The ACS shall have A-Frame, mission winch controls, and propulsion throttle controls, stowage for the portable crane controls, VHF and NOAA radios, monitor for remote camera system and hands-free interior communication with the Bridge and Charting Laboratory. The ACS shall have separate indicators for rudder angle, r/min, gyro repeater, CTD and Side scan systems winch-wire tension, line speed and wire out, and differential GPS. The arrangement of controls and displays shall permit the operator to face the general direction of the A-Frame and cable payout and have unobstructed visibility of the operating equipment. The design shall permit the ability to operate the aft crane from the ACS using portable crane controls.

To:

d. Aft Control Station (ACS) shall be either a part of the Bridge or an enclosed space located with visibility of A-frame, winches and crane, the Aft Working Deck and the starboard bridge wing. The ACS shall have A-Frame, mission winch controls, and propulsion throttle controls, stowage for the portable crane controls, VHF and NOAA radios, monitor for remote camera system and hands-free interior communication with the Bridge and Charting Laboratory. The ACS shall have separate indicators for rudder angle, r/min, gyro repeater, CTD, Side Scan Systems, and General Purpose winch-wire tension, line speed and wire out, and differential GPS. The arrangement of controls and displays shall permit the operator to face the general direction of the A-Frame and cable payout and have unobstructed visibility of the operating equipment. The design shall permit the ability to operate the aft crane from the ACS using portable crane controls.

202d. Machinery Control System: Table 202-1, MCS Control Station Capabilities

From:

Aft Control Station (ACS)	Overlooking the aft working deck area, A-frame and winches	Single lever throttle control/engine order telegraph, steering control [ECP 001], DPS control (if the DPS option is exercised), bow thruster control. [ECP 001] Monitoring of propeller r/min, rudder angle and bow thruster speed and angle as well as controls for the A-frame and winch.
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To:

Aft Control Station (ACS)	Overlooking the aft working deck area, A-frame and winches	Single lever throttle control/engine order telegraph, steering control [ECP 001], DPS control (if the DPS option is exercised), bow thruster control. [ECP 001] Monitoring of propeller r/min, rudder angle and bow thruster speed and angle as well as controls for the A-frame and winches.
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591c. Towing Equipment

From:

A-Frame - An A-Frame shall be provided for towing HSHR side scan sonar and handling scientific equipment over the stern.

The A-Frame shall provide a clear height of 5.1 m over the deck edge, and provide a clear width of 3.6 m at the deck and a clear width of 3.6 m at the cross member. The A-frame shall have a SWL of 1,815 kg at-sea in 2.5m significant wave height, 35 knot wind.

The A-frame shall pivot on a transverse axis, such that the cable shall plumb 5.1 m inboard to 3.4m outboard of the deck edge at a variable speed up to 20 seconds, full range, at SWL.

The A-Frame shall be provided with 3 padeyes at the centerline and at the quarter points of the cross member of the A-Frame. Two blocks for handling the tow cables shall be provided at the padeyes. The sheaves in the blocks shall be compatible with the cable used for the CTD and HSHR side scan hydrographic winches specified in the GFI. Sheaves shall be metered for line out, line tension and line speed. Sensor cables shall be run under the deck to the local control station, ACS, Charting Laboratory and the Bridge. Structural stops shall be provided in both the aft (working) position and in the forward position.

The A-frame shall withstand the SWL applied up to 30 degrees from vertical in any direction by a wire over the sheave, on any heading in 2.5 m significant wave heights. For the cases in which the A-Frame is against the structural stops, the yield stress of the material in the A-Frame, stops, and foundation shall be at least 1.5 times the calculated stresses resulting from application of a load equal to the nominal breaking strength of the strongest wire to be used.

The A-Frame shall be hydraulically actuated. The A-Frame shall stow with the cylinders closed and the rods protected from the weather. Hydraulic controls shall be provided locally in a position from which the operator will have a clear view of the A-Frame, and the load supported throughout the arc of travel and of the water surface at the stern of the ship. Controls shall also be provided remotely at the ACS.

Displays for metered sheaves shall be provided locally, in the ACS, Bridge and in the Charting Laboratory.

Lights which illuminate the hoisted load shall be provided on the A-frame.

Mission Winches - The Contractor shall provide space, weight, foundations, power cables, signal cables, through deck penetrations, demountable stuffing tubes, distributed services, and local controls and remote controls from ACS and Charting Laboratory for Government mission handling equipment. Cables installed by the Contractor terminating in the Charting Laboratory shall have 8 m of spare length. Cables installed by the Contractor shall be terminated into watertight junction boxes at the hull, sensor interface with 1 m of spare length. Remote controls shall be provided in accordance with Section 070f.

The Contractor shall determine and provide all installation details and interface control documentation (ICD) to support a fully functional installation (in conformance with the missions noted in Section 070) for the mission handling equipment listed in Attachment J-7, Government Furnished Information.

Government mission handling equipment includes:

- a. Side Scan Sonar winch with slip rings
- b. CTD winch with slip rings
- c. CTD cable (0.820 cm Electro-mechanical wire (0.322 inch))
- d. Side Scan cable (Klein Electro-mechanical wire 0.40 inch)
- e. Spare reels with cable

To:

A-Frame - An A-Frame shall be provided for towing HSHR side scan sonar and handling scientific equipment over the stern.

The A-Frame shall provide a clear height of 5.1 m over the deck edge, and provide a clear width of 3.6 m at the deck and a clear width of 3.6 m at the cross member. The A-frame shall have a SWL of 1,815 kg at-sea in 2.5m significant wave height, 35 knot wind.

The A-frame shall pivot on a transverse axis, such that the cable shall plumb 5.1 m inboard to 3.4m outboard of the deck edge at a variable speed up to 20 seconds, full range, at SWL.

The A-Frame shall be provided with 3 padeyes at the centerline and at the quarter points of the cross member of the A-Frame. Two blocks for handling the tow cables shall be provided at the padeyes. The sheaves in the blocks shall be compatible with the cable used for the CTD and HSHR side scan hydrographic winches specified in the GFI. Sheaves shall be metered for line out, line tension and line speed. Sensor cables shall be run under the deck to the local control station, ACS, Charting Laboratory and the Bridge. Structural stops shall be provided in both the aft (working) position and in the forward position.

The A-frame shall withstand the SWL applied up to 30 degrees from vertical in any direction by a wire over the sheave, on any heading in 2.5 m significant wave heights. For the cases in which the A-Frame is against the structural stops, the yield stress of the material in the A-Frame, stops, and foundation shall be at least 1.5 times the calculated stresses resulting from application of a load equal to the nominal breaking strength of the strongest wire to be used.

The A-Frame shall be hydraulically actuated. The A-Frame shall stow with the cylinders closed and the rods protected from the weather. Hydraulic controls shall be provided locally in a position from which the operator will have a clear view of the A-Frame, and the load supported throughout the arc of travel and of the water surface at the stern of the ship. Controls shall also be provided remotely at the ACS.

Displays for metered sheaves shall be provided locally, in the ACS, Bridge and in the Charting Laboratory.

Lights which illuminate the hoisted load shall be provided on the A-frame.

The A-frame, A-frame sheave and winch system shall have a SWL of at least 1,815 kg at-sea, 2.5m significant wave height, 35 knot wind. ABS certification shall be based on handling 1,815 kg in 2.5m significant wave height and 35 knot wind using wire rope with a breaking strength of 9.1 metric tons rigged to a new general purpose winch. USCG Subchapter U certification shall be based on wire with a breaking strength of 9.1 metric tons, rigged to a general purpose winch.

Mission Winches - The Contractor shall provide space, weight, foundations, power cables, signal cables, through deck penetrations, demountable stuffing tubes, distributed services, and local controls and remote controls from ACS and Charting Laboratory for Government mission handling equipment. Cables installed by the Contractor terminating in the Charting Laboratory shall have 8 m of spare length. Cables installed by the Contractor shall be terminated into watertight junction boxes at the hull, sensor interface with 1 m of spare length. Remote controls shall be provided in accordance with Section 070f.

The Contractor shall determine and provide all installation details and interface control documentation (ICD) to support a fully functional installation (in conformance with the missions noted in Section 070) for the mission handling equipment listed in Attachment J-7, Government Furnished Information.

Government mission handling equipment includes:

- a. Side Scan Sonar winch with slip rings
- b. CTD winch with slip rings
- c. CTD cable (0.820 cm Electro-mechanical wire (0.322 inch))
- d. Side Scan cable (Klein Electro-mechanical wire 0.40 inch)

e. Spare reels with cable

A general purpose winch shall be provided to support the 1,815 kg Safe Working Load. The general purpose winch shall be located so that the wire can be blocked through the A-frame. The general purpose winch system shall be provided with 300m of 11mm (7/16 inch) torque balanced wire rope. The winch drum shall be fitted with a Lebus shell and have the capacity to hold 1,000m of the 11mm (7/16 inch) wire rope.

A variable speed controlled level winding system shall be provided and shall be field adjustable for different cable diameters (3/8" spectra rope, 3/8" wire, 7/16" wire, and 5/8" chain).

The winch shall have a minimum pull capability of 1,815 kgf (4,000 pounds) at full spool (1000m of wire on the spool). The winch shall have variable speed and shall be capable of a line speed of 15 meters per minute at minimum spool diameter and up to 30 meters per minute with a full drum (1,000m of wire on the spool).

Winch controls shall be provided on the winch and remotely in the Aft Control Station.

An automatic cable washing and lubrication system shall be provided for the general purpose winch. Lubricant for the system shall be Grignare Co. PreLube 19 or equal.

A sheave shall be provided on the A-frame that is capable of 3/8" spectra rope, 3/8" wire, 7/16" wire, and 5/8" chain.

Delete section 591d. Options for Mission Handling Systems

Space and weight for the following Section 591 Options shall be incorporated in the vessel preliminary design. Contract design and detail design and construction for the installed options shall be priced in accordance with Section B of the contract:

a. **A-frame Safe Working Load** - The A-frame shall have a SWL of 4,500 kg SWL at-sea, 2.5m significant wave height, 35 knot wind.

As a result of this ECP 016, the total value of CLIN 0004 is increased by \$659,829.00.

As a result of this modification No. 0020 CLIN 0004 is increased as follows:
From: \$16,898,792.00 By: \$734,521.00 To: \$17,633,313.00

As a result of the above changes, the total contract value is increased by \$734,521.00 as follows:

From: \$19,149,875.00 By: \$734,521.00 To: \$19,884,396.00

All other terms and conditions remain unchanged.