

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE J	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 03	3. EFFECTIVE DATE 12-Mar-2009	4. REQUISITION/PURCHASE REQ. NO. N62583-09-MR-57753	5. PROJECT NO. (If applicable) N/A
6. ISSUED BY SPECIALTY CENTER ACQUISITIONS NAVFAC CODE	N62583	7. ADMINISTERED BY (If other than Item 6) DCMA VIRGINIA 10500 BATTLEVIEW PARKWAY, SUITE 200 MANASSAS VA 20109-2342	CODE S2404A
CODE RAQN0/NAVAL BASE VENTURA COUNTY 1205 MILL RD BLDG 850 PORT HUENEME CA 93043-4347 cecilia.marquez@navy.mil 805-982-2172			

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code) ABSG CONSULTING INC. 1525 Wilson Blvd., Ste. 625 Arlington VA 22209	9A. AMENDMENT OF SOLICITATION NO.
	9B. DATED (SEE ITEM 11)
	10A. MODIFICATION OF CONTRACT/ORDER NO. N00178-07-D-4925-EJP1
	10B. DATED (SEE ITEM 13) 27-Sep-2007
CAGE CODE 3RSX1	FACILITY CODE 075238337

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 one (1) copy 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 ACKNOWLEDGEMENT 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)

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

(*)	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.
<input type="checkbox"/>	
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
<input checked="" type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-1(a)(1) Changes Fixed Priced and Mutual Agreement
<input type="checkbox"/>	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.)
SEE PAGE 2

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Cecilia G Marquez, Contracting Officer	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY /s/Cecilia G Marquez	16C. DATE SIGNED 12-Mar-2009
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJP1	PAGE 2 of 2	FINAL
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GENERAL INFORMATION

The purpose of this modification is as follows:

1. The purpose of this modification is to provide additional study required as specified in the attached Statement of Work and provide funding.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED AS A RESULT OF THIS MODIFICATION.

A conformed copy of this Task Order is attached to this modification for information purposes only.

The total amount of funds obligated to the task is hereby increased by \$11944.00 from \$447974.00 to \$459918.00.

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJPI	PAGE 1 of 16	FINAL
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SECTION B SUPPLIES OR SERVICES AND PRICES

CLIN - SUPPLIES OR SERVICES

For FFP Items:

Item	Supplies/Services Qty	Unit	Unit Price	Total Price
2000	Technical consulting services - Fatigue Tests for Crane Hook Certification Criteria (OTHER)	1.0 Lot	\$459,918.00	\$459,918.00
200001	Funding (OTHER)			
200002	Funding (OTHER)			

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJPI	PAGE 2 of 16	FINAL
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SECTION C DESCRIPTIONS AND SPECIFICATIONS

Performance Work Statement

For

Fatigue Tests for Crane Hook Certification Criteria

Change Order

Part 1.0 INTRODUCTION

During the fatigue testing at Lehigh University Labs, six hooks fractured in the thread region of the shank (one 2T Carbon, three 2T Alloy and two 3T Alloy hooks). A change order request is needed to analyze why the six hooks fractured and to use a Scanning Electron Microscope (SEM) in the analysis. Metal fatigue failures are common and well known in welded steel structures but much less a problem in cast or forged steel structures. Two standards govern the safety of Navy crane hooks (NAVFAC P307 and MIL-HDBK-1038). Periodic, nondestructive evaluation (NDE) of crane hooks is mandated every six years by these standards. There may be 10,000 or more crane hooks that come under this inspection mandate. The expense is obviously great despite the fact that no Navy crane hook failures have been recorded, and that crane hooks are not welded structures. There is, therefore, reason to suspect that the six-year inspection interval currently mandated can be increased, perhaps even doubled to a 12-year interval, thus halving the current annual cost to the Navy for maintaining safety and reliability of its crane hooks.

PART 2.0 BACKGROUND

2.1 The current contract is determining prediction methods that will provide rational for management of the inspection intervals for the components of weight handling crane hooks. Included in this contract is experimental fatigue testing and modeling within a structural reliability framework. During some of the fatigue testing, six hooks fractured in the threaded areas (1 carbon, 5 alloy hooks).

2.2 Due to the fracturing of the six hooks, engineering and consulting services to perform Scanning Electron Microscopy (SEM) analyses is desired, requiring a change order.

Part 3.0 SCOPE addition

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJPI	PAGE 3 of 16	FINAL
----------------------------------	----------------------------	-----------------	-------

Perform scanning electron microscope analysis of six hooks (1 carbon and 5 alloy) that failed in threaded areas to conclusively determine the mode of failure of the hooks. It should be determined if the hooks failed in tension only or if any bending component caused premature failure of hooks compared to a hook that would have been loaded in tension only with no bending component. Additionally, it should be determined if there were any pre-existing flaws or unusual stress concentrations present that would have led to a shortened fatigue life. A report and conclusions for each hook and the entire group of six hooks shall be provided

PERSONNEL MINIMUM EDUCATION/EXPERIENCE QUALIFICATIONS

Part 4.0 MANDATORY COMPLIANCE REFERENCES

In keeping with the precepts of Performance Based Contracting, the contractor is directed to pursue his approach in compliance with responsible engineering practice, and the appropriate standards, such as those established by ASTM, and others. The adequacy of the compliance criteria selected by the contractor will be evaluated through the following submittals:

Performance Requirements Summary (PRS)

Performance Objective	PWS Reference	Acceptable Quality Level (AQL)	Method of Surveillance
Project Management	5.8.2	REP ^A	Review ^B
SEM Analysis (6 Hooks)	5.2	REP	Review
Evaluation of the SEM analysis and hook thread failures	5.5.5	REP	Review
Progress Reports	5.8.3	REP	Review
Final Report	5.8.4	REP	Review

A. Responsible Engineering Practice (REP): The quality of the reported technical effort shall be constant with responsible engineering practice associated with this work. This includes the technical approach, processes and procedures, conclusions, recommendations, documentation, precision and accuracy, and performer qualifications.

B. Review: The document will be reviewed for technical content relative to the objective of

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJPI	PAGE 4 of 16	FINAL
----------------------------------	----------------------------	-----------------	-------

this work.

C. Site Visit: A government project engineer(s) may make one or more visits to the contractor's site.

Part 5.0 PERFORMANCE REQUIREMENTS

5.1 To cope with the uncertainties in the material properties, the loading, and the crack growth model used, a structural reliability approach must be employed. The component's fatigue life must be treated as a random variable with a probability density function having a mean and standard deviation (Ramsamooj and Shugar 2002 a and b). The inspection interval of the component can then be managed using these parameters (Moan, 2005).

5.2 The work must define inspection sites for potential yielding in the crane hook. Fatigue testing can be conducted at the contractor's facilities. The results shall be employed to calibrate the fatigue failure model. Small scale components used must have material properties such that the fatigue model can be used to predict the fatigue life of the larger scale components.

5.3 The project is comprised of three phases: (1) Experimental fatigue testing; (2) Fatigue life prediction and reliability, and (3) Integration of the previous phase results into a recommended decision matrix relating the following three variables: (1) reliability or confidence level; (2) fatigue life; and (3) applied stress. Thus selecting any two of the foregoing variables would define the third variable.

5.4 The methodology must be set in a structural reliability framework which provides a more rational management of inspection intervals than currently used.

5.5 Required Technical Aspects.

5.5.1 The weight handling load environment for the crane hook must be defined and applied to the developed model(s).

5.5.2 Experimental Fatigue Testing. The weight handling load environment must be applied to the physical model(s) being tested. The test results will need to be transformed and compared to the analytical results. Allowable and limit stress must be compared to the test results and any analytical results.

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJP1	PAGE 5 of 16	FINAL
----------------------------------	----------------------------	-----------------	-------

5.5.3 Fatigue Life Prediction and Reliability. The fatigue life prediction and associated reliability shall be postulated and defended.

5.5.4 Theory. The theory and experience documented in the applicable documents (i.e. Section 7) shall be described relative to the objective and accomplishment of this work.

5.5.5 Analysis Procedures and Tools. Any analysis procedures and tools (i.e. solution methodologies implemented in various software products) shall be identified and their role in realizing the desired objective shall be addressed. These procedures shall be analyzed to ensure the analysis results are compatible and comparable with the test results.

5.6 Testing Procedures And Equipment. The testing procedures and equipment shall be documented. This documentation includes the characteristics of the testing equipment and fixtures including limitations having possible impact on the results or interpretation of the results. These procedures including the utilized equipment shall be analyzed to ensure the test results are compatible and comparable with the analytical results.

5.7 Aggregating Methods. The approach and methods used for the life prediction and reliability results shall be documented and defended.

5.8 Documentation

5.8.1 All technical reports shall be prepared in accordance with professional engineering technical reporting standards published by professional engineering societies (e.g. American Society of Civil Engineers) or Government Technical Document Standards.

5.8.2 The project plan shall detail the work breakdown structure, technical approach (theory, testing, analysis, and investigator qualifications, and costs.

5.8.3 Progress reports shall be submitted monthly, detailing actual cost obligation, and technical progress including findings that impact the overall project objective (Part 3.0). This report is the basis for monthly fast payment authorization.

5.8.4 Final Report. Integration of the results from the testing, life and reliability results, observations, and conclusions shall be discussed with supporting graphic and tabular exhibits where appropriate. These data

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJPI	PAGE 6 of 16	FINAL
----------------------------------	----------------------------	-----------------	-------

shall be crafted into a recommended prediction methodology including a decision matrix relating the following three variables: (1) reliability or confidence level; (2) fatigue life; and (3) applied stress. Thus by selecting any two of the foregoing variables, defines the third variable. The recommended methodology shall be defended using the presented data and applicable resources. The weight handling crane hook inspection interval shall be proposed and defended.

Part 6.0 DELIVERABLES

The results of the first two phases referred to above shall be compiled and presented to NFESC, by way of interim reports. NFESC will review and comment on each interim submittal before the next phase continues. The last phase shall produce the final project report. A proposed project plan detailing the work breakdown structure and technical approach, investigator qualifications, and costs shall be submitted to NFESC as the selection basis. The proposed project plan shall be updated after selection and NFESC review, but before work commences. NFESC reviews will require 20 working days.

Part 7.0 Applicable Documents

7.1 Department of Defense Military Handbook 1038 (1998). Weight Handling Equipment, 6 March 1998.

7.2 Malone, Percy L. (1982). Evaluation of Test Procedures for Crane Hooks, Naval Facilities Engineering Command, 200 Stovall Street, Alexandria, VA 22332.

7.3 Moan, T. (2005). Reliability-based management of inspection, maintenance and repair of offshore structures, Structure and Infrastructure Engineering, Vol. 1, No. 1, March 2005, 33-62.

7.4 NAVFAC P307 (2004). Management of Weight Handling Equipment, Naval Facilities Engineering Command, Navy Crane Center, June 2003.

7.7 Ramsamooj, D. V. and T. A. Shugar (2002 a). Prediction of fracture-based fatigue life of connectors for the mobile offshore base, Marine Structures 14 (2001) 197-214.

7.8 Ramsamooj, D. V. and T. A. Shugar (2002 b). Reliability analysis of fatigue life of the connectors-the US

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJP1	PAGE 7 of 16	FINAL
----------------------------------	----------------------------	-----------------	-------

Mobile Offshore Base, Marine Structures 15 (2002) 233-250.

Part 8.0 PERIOD OF PERFORMANCE

Period of performance end date is: ARO through 06/30/09.

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJP1	PAGE 8 of 16	FINAL
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SECTION D PACKAGING AND MARKING

In accordance with the SeaPort-e MAC contract.

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJP1	PAGE 9 of 16	FINAL
----------------------------------	----------------------------	-----------------	-------

SECTION E INSPECTION AND ACCEPTANCE

Upon completion of all work and final submission of all data items, the contractor's Senior Technical Representative shall prepare and sign a Certificate of Final Acceptance memorandum, and submit it to the TOM for signature. The contractor shall include the fully signed memorandum with its final invoice.

Inspection and Acceptance shall be in accordance with Section E of the SeaPort-e Multiple Award IDIQ Basic Contract for Firm Fixed Price Task Orders. Packaging and Marking shall be in accordance with Section D of the SeaPort-e Multiple Award IDIQ Basic Contract

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJP1	PAGE 10 of 16	FINAL
----------------------------------	----------------------------	------------------	-------

SECTION F DELIVERABLES OR PERFORMANCE

CLIN - DELIVERIES OR PERFORMANCE

Refer to Section B and SOW for specific deliverables.

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJPI	PAGE 11 of 16	FINAL
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SECTION G CONTRACT ADMINISTRATION DATA

5252.232-9513 INVOICING AND PAYMENT (WAWF) INSTRUCTIONS (NOV 2006)

(a) Invoices for goods received or services rendered under this contract shall be submitted electronically through Wide Area Work Flow -- Receipt and Acceptance (WAWF):

(1) The vendor shall have their cage code activated by calling 866-618-5988. Once activated, the vendor shall self-register at the web site <https://wawf.eb.mil>. Vendor training is available on the Internet at <http://www.wawftraining.com>. Additional support can be obtained by calling the NAVY WAWF Assistance Line: 1-800-559-WAWF (9293).

(2) WAWF Vendor "Quick Reference" Guides are located at the following web site: <http://www.acquisition.navy.mil/navyaos/content/view/full/3521>.

(3) Select the invoice type within WAWF as specified below. Back up documentation (such as timesheets, etc.) can be included and attached to the invoice in WAWF. Attachments created in any Microsoft Office product are attachable to the invoice in WAWF. Total limit for the size of files per invoice is 5 megabytes.

(b) The following information, regarding invoice routing DODAAC's, must be entered for completion of the invoice in WAWF:

WAWF Invoice Type:	-- Select 2-in-1 for FFP Services Only.
Issuing Office DODAAC	N62583
Admin Office DODAAC:	N62583
Inspector DODAAC (usually only used when Inspector & Acceptor are different people):	N69218
Ship To DODAAC (for Combo), Service Acceptor DODAAC (for 2 in 1), Service Approver DODAAC (Cost Voucher)	N62583
Local Processing Office (applicable if DFAS DoDAAC begins with an "N"):	
DCAA Office DODAAC (Used on Cost Voucher's only):	
Paying Office DODAAC:	See task order award

(c) Contractors approved by DCAA for direct billing will not process vouchers through DCAA, but may submit directly to DFAS. Final voucher submission will be approved by the ACO.

(d) For each invoice / cost voucher submitted for payment, the contractor shall also email the WAWF automated invoice notice directly to the following points of contact:

Name	Email	Phone	Role
Cecilia Marquez	cecilia.marquez@navy.mil	805-982-2172	Acceptor
Mary Canfield	mary.canfield1@navy.mil	805-982-1231	Inspector
Lupe Chavez	NFESCPAS@navy.mil	805-982-1030	Other

G17S TOM APPOINTMENT (AUG 2005)

(a) The Task Order Ordering Officer hereby appoints the following individual as the Task Order Manager

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJPI	PAGE 12 of 16	FINAL
----------------------------------	----------------------------	------------------	-------

(TOM) for this task order:

Name: **Mary Canfield, 805-982-1231**

Code: OP63

Mailing Address: NAVFAC Engineering Service Center, 1100 23rd Ave., Port Hueneme, CA. 93043-4370

Telephone: (805) 982-1316

(b) The TOM is responsible for those specific functions assigned in the Task Order Administration Plan, attached.

(c) Only the Task Order Ordering Officer has the authority to modify the terms of the task order. Therefore, in no event will any understanding, agreement, modification, change order, or other matter deviating from the terms of the basic contract or this task order between the contractor and any other person be effective or binding on the Government. If, in the opinion of the contractor, an effort outside the existing scope of this task order is requested, the contractor shall promptly notify the Task Ordering Office in writing. No action shall be taken by the contractor unless the Task Order Ordering Officer, or basic contract PCO has issued a formal modification.

CONTRACTING OFFICER:

Terry Moore, (805) 982-4414, Terry.L.moore@navy.mil

NAVFAC Southwest, SCCC, Code RAQN0/Naval Base Ventura County, 1205 Mill Rd, Bldg 850, Port Hueneme, CA. 93043-4347

CONTRACT SPECIALIST:

Cecilia Marquez, (805) 982-2172, cecilia.marquez@navy.mil

NAVFAC Southwest, SCCC, Code RAQN0/Naval Base Ventura County, 1205 Mill Rd, Bldg 850, Port Hueneme, CA. 93043-4347

Accounting Data
 SLINID PR Number Amount

 2000 N3258A07RCX0002 447974.00
 LLA :
 AA 1771804 KU2N 252 62470 8 068732 2D X0300Q AA001SGA0007
 FUNDING FOR CLIN 2000 (FULLY FUNDED AMT)

MOD 3

200001 N3258A07RCX0002 447974.00
 LLA :
 AA 1771804 KU2N 252 62470 8 068732 2D X0300Q AA001SGA0007

200002 11944.00
 LLA :

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJP1	PAGE 13 of 16	FINAL
----------------------------------	----------------------------	------------------	-------

AB 1709091804 KU2N 252 62470 8 068732 2D X0300Q AB001SGA0009
Funding

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJPI	PAGE 14 of 16	FINAL
----------------------------------	----------------------------	------------------	-------

SECTION H SPECIAL CONTRACT REQUIREMENTS

Special contract requirements (Section H) shall be in accordance with Section H of the SeaPort-e Multiple Award basic contract.

H52S PRIOR WRITTEN PERMISSION REQUIRED TO SUBCONTRACT (FEB 2007)

None of the services required by this task order shall be subcontracted to or performed by persons other than the contractor, the contractor's employees, or those subcontractors (as listed below) which were proposed and approved in the initial offer, without the prior written approval of the Task Order Ordering Officer.

Subcontractors Manhours

H-355 CONTRACTOR IDENTIFICATION (DEC 1999)

- (a) Contractor employees must be clearly identifiable while on Government property by wearing appropriate badges.
- (b) Contractor employees are required to clearly identify themselves and the company they work for whenever making contact with Government personnel by telephone or other electronic means.

H20S INSURANCE - WORK ON A GOVERNMENT INSTALLATION

The following types of insurance are required in accordance with the clause entitled, Insurance - Work On A Government Installation (FAR 52.228-5), and shall be maintained in the minimum amounts shown:

- (1) Comprehensive General Liability: \$200,000 per person and \$500,000 per accident for bodily injury.
- (2) Automobile Insurance: \$200,000 per person and \$500,000 per accident for bodily injury and \$20,000 per accident for property damage.
- (3) Standard Workmen's Compensation and Employer's Liability Insurance (or, where maritime employment is involved, Longshoremen's and Harbor Worker's Compensation Insurance) in the minimum amount of \$100,000.

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJP1	PAGE 15 of 16	FINAL
----------------------------------	----------------------------	------------------	-------

SECTION I CONTRACT CLAUSES

In accordance with the SeaPort-e Multiple Award basic contract for a Firm Fixed Price Task Orders.

252-251-7000 Ordering From Government Supply Sources (Oct 2002)

52.219-14 LIMITATIONS OF SUBCONTRACTING (DEC 1996)

52.237-2 Protection of Government Buildings, Equipment and Vegetation (Apr 1984)

52.251-1 Government Supply Sources (Apr 1984)

CONTRACT NO. N00178-07-D-4925	DELIVERY ORDER NO. EJP1	PAGE 16 of 16	FINAL
----------------------------------	----------------------------	------------------	-------

SECTION J LIST OF ATTACHMENTS