

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT1. Contract ID Code
Cost Plus Fixed Fee

Page 1 Of 8

2. Amendment/Modification No.

P00002

3. Effective Date

2013DEC02

4. Requisition/Purchase Req No.

SEE SCHEDULE

5. Project No. (If applicable)

6. Issued By

U.S. ARMY CONTRACTING COMMAND
LISA M. KOSKI
WARREN, MICHIGAN 48397-5000
HTTP://CONTRACTING.TACOM.ARMY.MIL

Code

W56HZV

7. Administered By (If other than Item 6)

DCMA BOSTON - AFCC
495 SUMMER STREET
BOSTON MA 02210-2138

Code

S2206A

8. Name And Address Of Contractor (No., Street, City, County, State and Zip Code)

LEVANT POWER CORPORATION
475 WILDWOOD AVE
WOBURN, MA 01801-2027

9A. Amendment Of Solicitation No.

9B. Dated (See Item 11)

10A. Modification Of Contract/Order No.

W56HZV-12-C-0011

10B. Dated (See Item 13)

2012JUN25

Code 5P2S2

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 amendments; (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)

NO CHANGE TO OBLIGATION DATA

13. THIS ITEM ONLY APPLIES TO MODIFICATIONS OF CONTRACTS/ORDERS

It Modifies The Contract/Order No. As Described In Item 14.

A. This Change Order is Issued Pursuant To:
The Contract/Order No. In Item 10A.

The Changes Set Forth In Item 14 Are Made In

B. The Above Numbered Contract/Order Is Modified To Reflect The Administrative Changes (such as changes in paying office, appropriation data, etc.) Set Forth In Item 14, Pursuant To The Authority of FAR 43.103(b).

C. This Supplemental Agreement Is Entered Into Pursuant To Authority Of:

MUTUAL AGREEMENT

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 SECOND PAGE FOR DESCRIPTION

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)

LYNN M. BYRNE
LYNN.M.BYRNE@US.ARMY.MIL (586)282-6553

15B. Contractor/Offeror

15C. Date Signed

16B. United States Of America

16C. Date Signed

(Signature of person authorized to sign)

By _____ /SIGNED/

(Signature of Contracting Officer)

2013DEC02

NSN 7540-01-152-8070

30-105-02

STANDARD FORM 30 (REV. 10-83)

PREVIOUS EDITIONS UNUSABLE

Prescribed by GSA FAR (48 CFR) 53.243

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Name of Offeror or Contractor: LEVANT POWER CORPORATION		

SECTION A - SUPPLEMENTAL INFORMATION

Buyer Name: LISA M. KOSKI
Buyer Office Symbol/Telephone Number: CCTA-ASG-C/(586)282-9617
Type of Contract: Cost Plus Fixed Fee
Kind of Contract: Research and Development Contracts
Type of Business: Other Small Business Performing in U.S.
Surveillance Criticality Designator: C
Weapon System: No Identified Army Weapons Systems

*** End of Narrative A0000 ***

PREVIOUS NEGOTIATED CONTRACT VALUE: \$729,768.00
NEGOTIATED VALUE OF THIS ACTION: (\$224,101.00)
TOTAL NEGOTIATED CONTRACT VALUE: \$505,667.00

PREVIOUS OBLIGATED CONTRACT AMOUNT: \$505,667.00
OBLIGATED AMOUNT OF THIS ACTION: 0.00
TOTAL OBLIGATED CONTRACT AMOUNT: \$505,667.00

1. The purpose of this bilateral Modification P00002 is to cancel this contract at no additional cost.
2. As a result of this Modification P00002, the following changes are hereby made to the contract:

SECTION DESCRIPTION

B-CLIN 0001-Estimated cost is decreased by \$212,417.00 from \$691,723.00 to \$479,306.00. Fee is decreased by \$11,684.00 from \$38,045.00 to \$26,361.00. The total amount is decreased by \$224,101.00 from \$729,768.00 to \$505,667.00. The completion date is updated to 25 June 2013.

B-Revise paragraph B.3.2 to remove 2nd increment of funding.

C-Delete paragraphs C.4.1.2, C.4.1.7, C.4.1.8 and C.4.2.4

F Revise date in paragraph F.1.1

3. As a result of this Modification P00002, the total negotiated value of this contract is decreased by \$224,101.00 from \$729,768.00 to \$505,667.00.
4. As a result of this Modification P00002, the total value of this contract is deobligated by \$224,101.00 from \$729,768.00 to \$505,667.00.
5. As a result of this Modification P00002, the contractor has fulfilled all requirements, the Government has fulfilled all payments, and the contract is considered complete.
6. This Modification P00002 constitutes a full and final settlement and disposition of all matters relating to this contract and is a full release and accord and satisfaction of any and all claims, demands, or causes of action that either the contractor or the Government may have against the other arising out of or related to the contract. Thus, the contractor hereby waives any and all rights and claims for equitable adjustment attributable to such facts and circumstances giving rise to the above termination and hereby releases the Government from any and all liability under this contract, including any interest and any claims for delay.
7. Except as specifically provided in this Modification P00002, all other terms and conditions remain unchanged.

*** END OF NARRATIVE A0002 ***

Name of Offeror or Contractor: LEVANT POWER CORPORATION

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT									
0001	<p>SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS</p> <p><u>SERVICES LINE ITEM</u></p> <p>GENERIC NAME DESCRIPTION: 2010.2(C) PH II SBIR A10-13B PSC: AZ11 CLIN CONTRACT TYPE: Cost Plus Fixed Fee</p> <p>The contractor shall furnish all the supplies and services to accomplish the tasks specified in Section C - Description/Specification/Work Statement.</p> <p>*Est. Cost: \$479,306 *Fixed Fee: \$26,361 *Total Amount: \$505,667</p> <p>*Revised per Modification P00002</p> <p>(End of narrative B001)</p> <p><u>Inspection and Acceptance</u> INSPECTION: Destination ACCEPTANCE: Destination</p> <p><u>Deliveries or Performance</u></p> <table border="0"> <tr> <td>DLVR SCH</td> <td></td> <td>PERF COMPL</td> </tr> <tr> <td><u>REL CD</u></td> <td><u>QUANTITY</u></td> <td><u>DATE</u></td> </tr> <tr> <td>001</td> <td>1</td> <td>25-JUN-2013</td> </tr> </table> <p>\$ 505,667.00</p>	DLVR SCH		PERF COMPL	<u>REL CD</u>	<u>QUANTITY</u>	<u>DATE</u>	001	1	25-JUN-2013	1	LO		\$ 505,667.00
DLVR SCH		PERF COMPL												
<u>REL CD</u>	<u>QUANTITY</u>	<u>DATE</u>												
001	1	25-JUN-2013												
000101	<p><u>SERVICES LINE ITEM</u></p> <p>PRON: R322C145R3 PRON AMD: 01 ACRN: AA AMS CD: 665502M4000 (AMOUNT: \$ 505,667.00)</p>													

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B.1 ESTIMATED COST & PAYMENT

B.1.1 The ESTIMATED COST for performance of the work required under this contract is stated in Section B under CLIN 0001, which shall constitute the estimated cost for the purpose of the Contract Clause entitled LIMITATION OF FUNDS, FAR 52.232-22.

B.1.2 The contractor will be paid for the fixed fee stated in Section B under CLIN 0001 for the performance of work under the contract and in accordance with the terms of the Contract Clause entitled FIXED FEE, FAR 52.216-8. The fixed fee together with the reimbursement of cost shall constitute full and complete consideration for the contractor's service in connection with the work required and performed under this contract.

B.1.3 Allowable cost shall be determined, and payment thereof shall be provided, in accordance with the Contract Clause hereof entitled ALLOWABLE COST AND PAYMENT, FAR 52.216-7.

B.2 PAYMENT

B.2.1 The contractor may submit public vouchers MONTHLY for payment under this contract. The fee will be payable at the time of reimbursement of cost at the same rate to such cost as the total fee of this contract bears to the total estimated cost thereof, subject to any withholding pursuant to provisions of this contract.

B.3 FUNDING

B.3.1 The Government shall provide funds under this contract covering the estimated cost and fee hereof on an incremental basis as provided for in the following funding schedule and pursuant to the Contract Clause entitled LIMITATION OF FUNDS, FAR 52.232-22. It is estimated that the incremental amounts are sufficient for the performance of work in each of the cited periods. The Government may, at its discretion, allot such funds on an incremental basis within each fiscal year. The contractor shall so plan and execute the work required by this contract as to expend and/or commit funds compatible with the schedule set forth below. Whenever the contractor has reason to believe that the funds allotted to this contract for any fiscal year are either insufficient or excessive for the performance of work required in that fiscal year, the Government shall be so notified.

B.3.2 FUNDING SCHEDULE

<u>Performance Period</u>	<u>Amount</u>
Date of contract award through twelve (12) months after date of contract award	\$505,667

B.4 Funds Allotted. The amount of funds currently allotted to this contract is \$505,667.

*** END OF NARRATIVE B0001 ***

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SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

Scope of Work

SBIR Phase II Contract, Energy Regenerative Adaptive Damping Shock Absorber

Background: This contract is a direct follow-on of a successfully completed Phase I SBIR Contract

C.1 Scope

C.1.1 The contractor, acting as an independent contractor and not as an agent of the Government, shall provide all necessary personnel, facilities, materials, and services to complete the efforts described in this Scope of Work.

C.1.2 The Contractor shall design and fabricate three (3) vehicle sets of prototype energy-regenerative adaptive-damping systems able to be installed on a 15,000 pound HMMWV . A vehicle set shall consist of four (4) shocks and one (1) controller (12 shocks and 3 controllers in total). The systems shall include the Contractor designed shocks, the Contractor designed control units, ancillary hardware (connection wires, bushings and/or bearings), software (control algorithms and computational math models), and documentation. The Contractor shall ensure that Contractor designed shock absorbers and the Contractor designed control units are designed in conjunction with all required ancillary hardware (connection wires, bushings and/or bearings), software (control algorithms and computational math models), and documentation to ensure the system can be installed in a vehicle and operated without any Contractor support.

C.1.3 The Contractor shall design and fabricate two (2) energy-regenerative adaptive-damping capable shock absorbers and one (1) control unit that would be able to be installed on a Stryker vehicle platform that is able to weight between 50,000 and 60,000 pounds. with a suspension motion ratio of 0.97 front and 0.7 rear. The Contractor shall ensure that Contractor designed shock absorbers and the Contractor designed control units are designed in conjunction with all required ancillary hardware (connection wires, bushings and/or bearings), software (control algorithms and computational math models), and documentation to ensure the system can be operated without any Contractor support.

C.1.4 The Contractor shall provide a series of monthly progress reports, a final technical report, and conduct a final presentation of the results of the effort to the Government. The contractor shall also deliver all of the hardware (shock absorber units and controllers), and software developed under this contract to TARDEC at the end of this effort. The Government may conduct verification testing of any or all hardware and software at a time and facility of the Governments choosing.

C.2 Background

The Phase I SBIR effort focused on regeneration of energy from the vehicle suspension which is normally converted to waste heat. Based on the success of the Phase I SBIR with the contractors GenShock energy regenerative shock absorber, the Government is seeking to pursue a Phase II SBIR that expands the scope of the GenShock product. The shock absorber shall still recover energy from the motion of the suspension, but during this Phase II SBIR it shall also actively adjust the level of damping to improve a vehicles ride and handling performance on various road surfaces.

C.3 Tasks

C.3.1 15,000 Pound HMMWV Component Design and Development

C.3.1.1 Shock Absorber Design, Modeling and Simulation

The Contractor shall perform shock absorber Modeling and Simulation (M&S) to demonstrate that acceptable damping levels can be achieved with the Contractor designed hardware. The performance objective for this portion of the contract is to develop a computational mathematical model that verifies the Contractor designed energy-regenerative adaptive-damping shock absorber performance is equivalent (having the ability to reach the same forces for a given velocity) to that of standard High Mobility Multipurpose Wheeled Vehicle (HMMWV) front (P/N 12480613-1) and rear shock (P/N 12480613-2) absorbers when measured for force verses velocity. The Contractor shall provide a force verses velocity (F vs. V) curve chart to the COR for review and approval IAW CDRL A007. The COR will review the F vs. V curve chart and provide feedback or approval within seven (7) days of receipt of the chart. The Contractor shall not proceed with any component fabrication work until the COR has reviewed and approved the F vs. V curve chart. If approved, the Contractor shall proceed with the fabrication of the shock hardware. If not approved or the COR determines that the force verses velocity chart does not meet the minimum level of required damping, the Contractor shall redesign the components to meet the minimum level of damping required and resubmit the F vs. V curve chart for approval. The Contractor shall provide the final approved computational mathematical model to the COR at the end of the contract period of performance IAW CDRL A006.

C.3.1.2 Control Algorithm Modeling and Simulation

The Contractor shall develop a control algorithm that will be used in conjunction with the shock absorbers designed, modeled, and simulated by the Contractor in C.3.1.1. The Contractor shall provide the final developed control algorithm to the COR at the end of the contract period of performance IAW CDRL A006.

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C.3.1.3 Component Fabrication

The Contractor shall fabricate and assemble twelve (12) energy-regenerative adaptive-damping shock absorbers and three (3) controller units of the Contractors design that were modeled and simulated in C.3.1.1.

C.3.2 50,000 to 60,000 Pound Stryker Vehicle Component Design and Development

C.3.2.1 Shock Absorber Design Modeling and Simulation

The Contractor shall perform shock absorber Modeling and Simulation (M&S) to demonstrate that acceptable damping levels can be achieved with the Contractors designed hardware. The performance objective for this portion of the contract is to develop a computational mathematical model that verifies the Contractor designed energy-regenerative adaptive-damping shock absorber performance is equivalent (having the ability to reach the same forces for a given velocity) to that of a 55,000 pound Stryker Mobile Gun System (MGS) front (P/N 10650830) and rear (P/N 10650835) shock absorber, when measured for force verses velocity. The Contractor shall provide a force verses velocity (F vs. V) curve chart to the COR for review and approval IAW CDRL A007. The COR will review the F vs. V curve chart and provide feedback or approval within seven (7) days of receipt of the chart. The Contractor shall not proceed with any component fabrication work until the COR has reviewed and approved the F vs. V curve chart. If approved, the Contractor shall proceed with the fabrication of the shock hardware. If not approved or the COR determines that the force verses velocity chart does not meet the minimum level of required damping, the Contractor shall redesign the components to meet the minimum level of damping required and resubmit the F vs. V curve chart for approval. The Contractor shall provide the final approved computational mathematical model to the COR at the end of the contract period of performance IAW CDRL A006.

C.3.2.2 Control Algorithm Modeling and Simulation

The Contractor shall develop a control algorithm that will be used in conjunction with the shock absorbers designed, modeled, and simulated by the contractor in C.3.2.1. The Contractor shall also provide the final developed control algorithm to the COR at the end of the contract period of performance IAW CDRL A006.

C.3.2.3 Component Fabrication

The Contractor shall fabricate and assemble two (2) energy-regenerative adaptive-damping shock absorbers and one (1) controller unit of the Contractors design that was modeled and simulated in C.3.2.1.

C.4 Deliverables

C.4.1 Documents, Hardware, and Software

C.4.1.1 Monthly Progress Reports

The Contractor shall submit Monthly Progress Reports to the COR no later than (NLT) 30 days after contract award, and every thirty (30) days thereafter through the end of the contract period of performance in accordance with (IAW) CDRL A005. The monthly reports shall include summarized modeling and simulation results, analyzed conclusions, the path forward regarding this technology development effort, and a summary of development challenges and plans to correct said challenges.

*C.4.1.2-Deleted per Modification P00002

C.4.1.3 Meeting Minutes

Meeting Minutes shall be delivered to the COR NLT five (5) days after meetings IAW CDRL A002.

C.4.1.4 Meeting Agenda

Agendas for meetings shall be delivered to the COR BLT five (5) days before the scheduled meeting IAW CDRL A003.

C.4.1.5 Presentation Material

Presentation Material shall be delivered to the COR for review NLT one (1) day prior to any meeting IAW CDRL A004, unless otherwise specified in the scope.

C.4.1.6 Final Component Delivery

The Contractor shall be responsible for shipping all components fabricated under this contract to the Government. The Contractor shall deliver all of the energy-regenerative adaptive-damping shock absorber units, and all shock absorber control units, ancillary hardware (connection wires, bushings and/or bearings), and all of the software developed under this contract to TARDEC NLT 30 days after the completion of this contract.

*C.4.1.7-Deleted per Modification P00002

*C.4.1.8-Deleted per Modification P00002

C.4.2 Meetings

C.4.2.1 Start of Work Meeting (SOWM)

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The Contractor shall conduct a Start of Work Meeting (SOWM) with the COR and other program representatives at TARDEC NLT 30 days after contract award. The SOWM will review the project scope, objectives, and Contractors work plan to accomplish the scope of work. The date and time shall be mutually agreed upon by the Government and the Contractor. The Contractor shall propose the date(s) and times of the SOWM to the COR no later than 10 days prior to the proposed meeting date. The Contractor shall record and submit Meeting Minutes IAW CDRL A002. The Contractor shall prepare Presentation Materials for the SOWM IAW CDRL A004, and furnish the presentation materials to the COR NLT one (1) day prior to the meeting.

C.4.2.2 Bi-monthly Teleconference

The Contractor shall plan, coordinate, and attend a bi-monthly (every other month) teleconference with the COR to discuss current program progress. The Contractor shall prepare and submit a meeting agenda for each bi-monthly teleconference to the COR NLT 5 days prior to the scheduled teleconference IAW CDRL A003. The recurring scheduled teleconference day and time shall be mutually agreed upon by both parties at the SOWM specified in paragraph C.4.1. The Contractor shall record and submit Meeting Minutes for each bi-monthly teleconference IAW CDRL A002.

C.4.2.3 Site Visit

The COR will visit the Contractors locations (and/or its test facilities) during the period of performance to perform quality surveillance and discuss program contract performance and progress details. The COR will propose a number of dates and times for site visits to occur throughout the period of performance. The final date(s) and time(s) shall be mutually agreed upon between the COR and the contractor. The COR will provide the Contractor with visit requests no later than seven (7) days prior to any COR site visit.

*C.4.2.4-Deleted per Modification P00002

C.5 Period of Performance

C.5.1 The total period of performance of this effort ends on June 25, 2013.

*** END OF NARRATIVE C0001 ***

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Name of Offeror or Contractor: LEVANT POWER CORPORATION

SECTION F - DELIVERIES OR PERFORMANCE

F.1 PERIOD OF PERFORMANCE

*F.1.1 All effort required under this contract shall be completed within twelve (12) months after contract award date.

F.1.2 If there is any conflict between Section B and Section F of this contract, Section F will prevail.

F.2 DATA DELIVERABLES

F.2.1 Delivery of data set forth in the contract shall be in accordance with the Contract Data Requirements List, DD Form 1423.

F.3 MATERIAL/HARDWARE DELIVERABLES

F.3.1 All materials/hardware required to be delivered under the contract shall be delivered FOB Destination to the following address:

US Army TARDEC
ATTN: Geoffrey Bossio, RDTA-RS, MS 121
6501 E. 11 Mile Rd.
Warren, MI 48397-5000

*Changed per Modification P00002.

*** END OF NARRATIVE F0001 ***