

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. P00001		3. EFFECTIVE DATE 09-JUL-2009		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N FAIRFAX DR ARLINGTON VA 22203		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939				FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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)							
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.							
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).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jyeung09918 <div style="text-align: center;">(See Page 2)</div>							
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. (b)(4)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
(b)(4)				TEL. (b)(6)		EMAIL (b)(6)	
15C. DATE SIGNED 7/9/09		15B. UNITED STATES OF AMERICA (b)(6)		16B. DATE SIGNED 7/9/09		16C. DATE SIGNED 7/9/09	
(Signature of person authorized to sign)		(Signature of Contracting Officer)					

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to revise the technical data rights category from "Government Purpose Rights" to "Unlimited Rights" for the Government's use of the LRASM subsystem interfaces as stated in Section H-4 - LRASM Subsystem Interface Definition, and to delete (b)(4) from the list of subcontractors under Section H-10 of the Contract. In addition, the modification replaces "Michael D. Blackstone" with "Christopher Glista" in Block 5 of the Standard Form (SF) 26. Accordingly, make the following revisions:

STANDARD FORM (SF) 26

In Block 5 - Issued By:

Delete: Michael D. Blackstone
 Replace with: **Christopher Glista**

SECTION II - SPECIAL CONTRACT REQUIREMENTS

Revise Section H-4 - LRASM Subsystem Interface Definition - to read as follows:

H-4 LRASM Subsystem Interface Definition

The parties agree that if a Phase 2b effort for demonstrating LRASM capabilities is awarded, the Contractor agrees to include in the proposal for Phase 2b, the effort for providing current electrical and mechanical interfaces for the subsystems listed below. The Contractor agrees that if the Government accepts this effort, the interfaces will be delivered with **Unlimited Rights** as defined in DFAR 252.227.7013. In the event the Government uses these interfaces for developing alternate LRASM subsystems, the Contractor is not responsible for the performance of those subsystems or the overall LRASM system if the subsystems affect overall LRASM performance.

Subsystem Listing

Engine
 GPS Receiver
 GPS Antenna
 Inertial Measurement Unit
 Warhead
 Fuze
 Mission Control Unit

(b)(3); 22 USC §2778
 (e) Sec 38(e)

At Section H-10 - Consent to Subcontract, delete (b)(4) under paragraph (a). Paragraph (a) of Section H-10 is revised to read as follows:

(a) Pursuant to the clause of the General Provisions entitled "Subcontracts (JUN 2007)," FAR 52.244-2(j), the Contracting Officer hereby consents to the placement of subcontract(s) with the following firm(s)/consultant(s) at the ceiling amounts specified:

(b)(4)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. P00002	3. EFFECTIVE DATE 31-Jul-2009	4. REQUEST FOR PURCHASE (RFP) NO.	5. PROJECT NO. (if applicable)		
6. ISSUED BY DARPA CWO ATTN: (b)(6) 3701 N FAIRFAX DR ARLINGTON VA 22203	CODE HR0011	7. ADMINISTERED BY (If other than item 6) DOWA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 43 ORLANDO FL 32819-3907			
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 N SAND LAKE RD MP125 ORLANDO FL 32819-3907		9A. AMENDMENT OF SOLICITATION NO.			
		9B. DATED (SEE ITEM 11)			
		X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
		X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE: 04939		FACILITY CODE:			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
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X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF Mutual Agreement of the Parties					
D. OTHER (Specify type of modification and authority)					
I. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by DCF section headings, including solicitation/contract subject matter where feasible) Modification Control Number jyeung09990					
(See Page 2)					
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) (b)(4)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
15B. (b)(4)		15C. DATE SIGNED 30 July 2009		16B. UNITED STATES OF AMERICA (b)(6)	
		BY (Signature of Contracting Officer)		16C. DATE SIGNED 7/31/09	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to delete the page limit originally set for the R&D Status Report and to revise the Distribution Statement B to Distribution Statement E. Accordingly, make the following revisions to the Contract:

SECTION C - DESCRIPTIONS AND SPECIFICATIONS

At Section C-2 - Reports and Other Deliverables:

- Under paragraph (a)(1) -

Delete: R&D STATUS REPORT. This brief narrative, not to exceed five pages in length, shall contain the following:

Replace with: R&D STATUS REPORT. This brief narrative shall contain the following:

- Under paragraph (d)(4) -

Delete: Distribution Statement B applies. "Distribution authorized to U.S. Government agencies only due to the inclusion of proprietary information and to prevent Premature Dissemination of potentially critical technological information. Other requests for this document shall be referred to DARPA Technical Office via email at tio@darpa.mil."

Replace with: Distribution Statement E applies. "Distribution authorized to U.S. Government agencies only due to the inclusion of proprietary information and to prevent Premature Dissemination of potentially critical technological information. Other requests for this document shall be referred to DARPA Technical Office via email at tio@darpa.mil."

- End -

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
2. AMENDMENT/MODIFICATION NO. P00003		3. EFFECTIVE DATE 09-Nov-2009		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR. ARLINGTON VA 22203		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				10B. DATED (SEE ITEM 13) X 29-Jun-2009			
CODE 04939				FACILITY CODE			
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14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible) Modification Control Number: jyeung1080							
(See Pages 2 and 3)							
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 (b)(4)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
(b)(4)				TEL: (b)(6) EMAIL: (b)(6)			
15C. DATE SIGNED 11/9/09 (Signature of person authorized to sign)				16C. DATE SIGNED 11/9/09 (Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to clarify the Distribution Statement E in Section C, which was previously incorporated into the Contract under modification P00002. Further, the modification makes within-scope changes to Attachment No. 1 – Statement of Work without impacting the schedule and cost of the Contract. Accordingly, make the following changes:

SECTION C - DESCRIPTIONS AND SPECIFICATIONS

At Section C-2 – Reports and Other Deliverables:

- Under paragraph (d)(4) -

Delete: Distribution Statement E applies. "Distribution authorized to U.S. Government agencies only due to the inclusion of proprietary information and to prevent Premature Dissemination of potentially critical technological information. Other requests for this document shall be referred to DARPA Technical Office via email at tio@darpa.mil."

Replace with: Distribution Statement E applies. "Distribution authorized to DoD Components only due to the inclusion of proprietary information and to prevent Premature Dissemination of potentially critical technological information. Other requests for this document shall be referred to DARPA Technical Office via email at tio@darpa.mil."

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

Revise the description of Attachment No. 1 to read as follows:

Attachment No. 1 (revised) - Statement of Work entitled, "Long Range Anti-Ship Missile (LR-ASM) Demonstration Program, Phase 1, dated October 29, 2009" (9 pages)

ATTACHMENT NO. 1 – STATEMENT OF WORK

- At Section 4.1.1.3 – Airframe -

Delete: The Contractor shall perform a preliminary wing design effort to meet range, container fit, and RCS requirements. The preliminary aerodynamic design will be implemented in an approximately 40% scale factor wind tunnel test to measure basic aerodynamic force and moment coefficients for the integrated airframe to feed the 6-DOF performance model and reduce risk for the final design activity in Phase 2a.

Replace with: The Contractor shall perform a preliminary wing design effort to meet range, container fit, and RCS requirements. The preliminary wing design will be implemented in an approximately 40% scale factor wind tunnel model for testing in Phase 2a.

- At Section 4.1.1.4 – Guidance and Control -

Delete: (b)(3):22 USC §2778(e) Sec 38(e)

(b)(3) 22 USC §2778(e) Sec 38(e)

Replace with:

A copy of the Attachment No. 1 (revised) is incorporated into the Contract by this modification P00003.

~ End ~

**STATEMENT OF WORK
FOR
LONG RANGE ANTI SHIP MISSILE (LRASM)
PHASE 1**

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1.0 Introduction

The purpose of this Statement of Work is to identify the requirements for Lockheed Martin ("Contractor") to support the Defense Advanced Research Projects Agency (DARPA) in the Long Range Anti-Ship Missile (LRASM) program. The system to be developed under this statement of work shall be referred to as "LRASM-A."

The program is divided into three phases. Phase 1 culminates in a Preliminary Design Review (PDR), Phase 2a culminates in a Critical Design Review (CDR), and Phase 2b culminates in a flight test of the LRASM-A system. Each phase requires successful completion before moving to the next phase. This SOW covers only the activity to be completed in Phase 1.

2.0 Applicable Documents

2.1 Government

- DARPA BAA 08-41 with annexes

3.0 Supplies and Services

The Contractor shall furnish the necessary management, personnel, labor, services, documentation, materials, equipment, tools, facilities, and support services required to perform the tasks necessary to build, test, integrate and demonstrate associated components for the development and demonstration of the LRASM-A prototype system in accordance with the provisions of this SOW and the contract.

Phase 1

The Contractor shall conduct a series of trade studies to determine what additional mission equipment and or modifications to the existing Joint Air to Surface Standoff Missile-Extended Range (JASSM – ER) mission equipment is required to achieve the LRASM mission. This will be based on threat and target analyses using data provided in the BAA Classified Appendix and from participation in the LRASM Threat Analysis Working Group (TAWG) sponsored by DARPA. The results of the studies will be presented at PDR. The results of the trade studies will be used to mature the proposed LRASM-A weapon system configuration and its design and capability versus system level requirements. System effectiveness of the PDR configuration will be evaluated with the above mentioned threat and target analysis using models and simulations developed under Contractor Independent Research and Development (IRAD) tasks, as well as a 6-DOF flight simulation to predict range, maneuverability, survivability, and terminal accuracy.

The Contractor shall provide data to the Government Assessment Team (GAT) to conduct an independent government assessment of LRASM-A capability. The Contractor shall support industry - GAT IPT technical interchanges.

4.0 Detailed description of supplies and services

4.1 Phase 1

4.1.1 Flight Vehicle

4.1.1.1 Propulsion

The Contractor shall identify the necessary turbofan fuel system modifications for LRASM-A based on the mechanical layout and space availability. The Contractor shall work with the engine supplier

to determine the best approach to enabling the engine to be stored vertically without loss of performance over a 15 year period.

4.1.1.2 Payload

The Contractor shall review the lethality analysis provided in the BAA, and shall define and assess LRASM-A specific terminal delivery characteristics to substantiate lethality performance with government supplied warhead effectiveness data against requirements.

4.1.1.3 Airframe

The Contractor shall develop a preliminary layout and mechanical analysis of the mission equipment

(b)(3)-22 USC §2778(e) Sec 38(e)

within

LRASM-A. The layout shall balance the fuel and mission equipment volume needs to achieve the required capability. LRASM-A, with any additional apertures resulting from new mission equipment, shall be analyzed for volume, producibility, and impacts to infrared signature and radar cross section (RCS). Requirements for weight and balance limits as well as test unique equipment such as telemetry and flight termination subsystems shall be included.

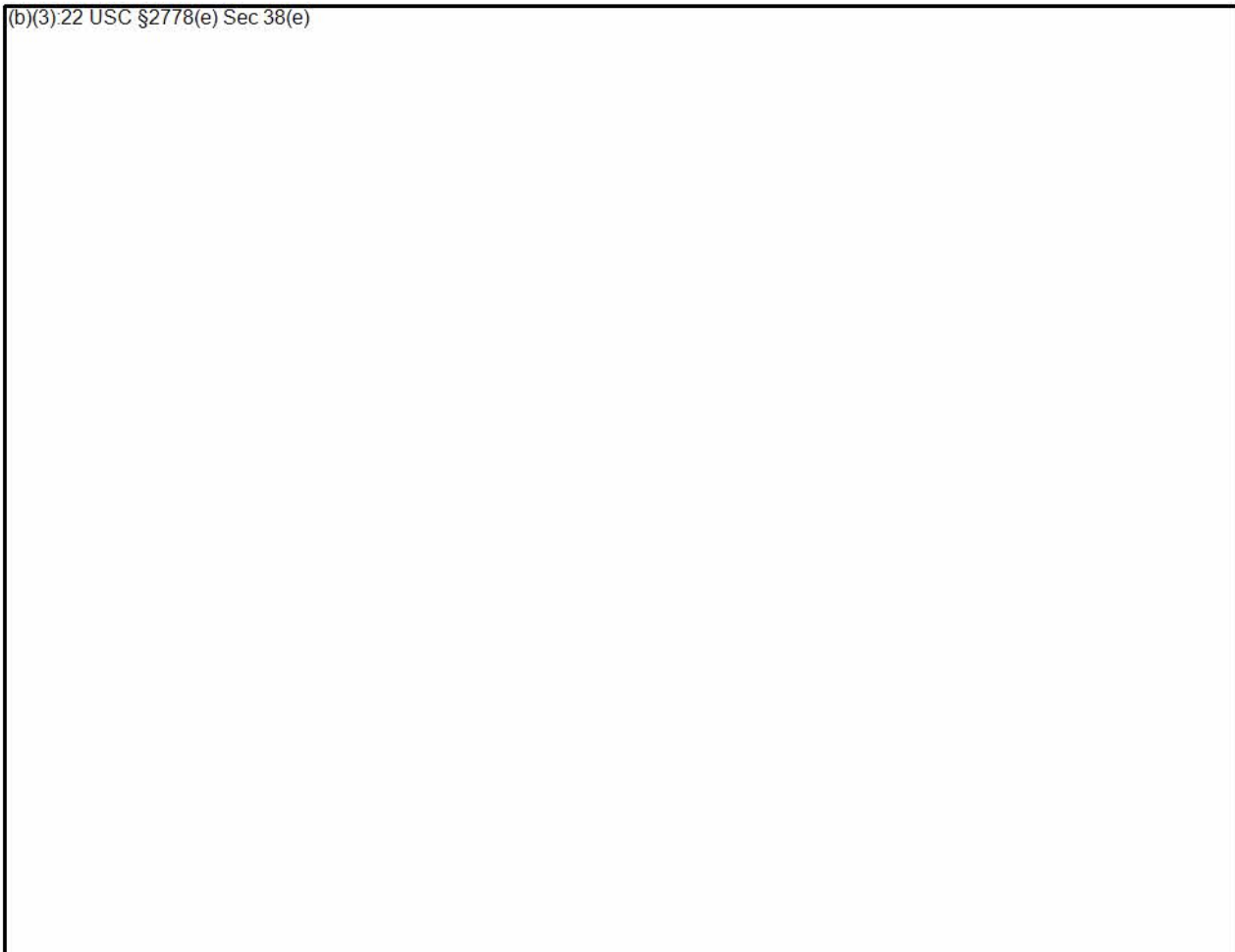
The Contractor shall develop the electrical interface and power requirements and assess the ability of the JASSM-ER power system to provide sufficient power. Any changes required to the JASSM-ER power system shall be quantified at PDR.

The Contractor shall perform a preliminary wing design effort to meet range, container fit, and RCS requirements. The preliminary wing design will be implemented in an approximately 40% scale factor wind tunnel model for testing in Phase 2a.

4.1.1.4 Guidance and Control

(b)(3)-22 USC §2778(e) Sec 38(e)

(b)(3):22 USC §2778(e) Sec 38(e)



4.1.2 Command Launch

The Contractor shall develop a preliminary design of a LRASM-A launch canister, including thermal and structural analysis.

The Contractor shall conduct a preliminary design analysis of the booster assembly (MK-114) to verify its capability to meet LRASM-A requirements. The assembly includes the booster, the thrust vector control assembly, and the mounting attachment to the missile. The analysis shall include structural analysis, adequacy of thrust vector control to achieve the LRASM-A trajectory and meet vertical launch trajectory safety requirements, and booster adequacy to meet required end of boost flight conditions (altitude, range and speed).

The Contractor shall develop a Mk41 VLS canister integration concept, to include analysis of the canister structure, cell weight limits, gas management system, and mechanical and electrical interfaces.

The Contractor shall develop a mission planning concept consistent with launch platform systems and operational requirements.

4.1.3 Systems Engineering and Program Management

4.1.3.1 Systems Engineering

The Contractor shall work with DARPA and the GAT to develop and refine the LRASM-A CONOPS and missile system concept. This shall be closely coupled with the threat and target analyses conducted using models and simulation developed under IRAD and the consensus from the TAWG. The purpose is to determine the best balance of capability and tactics to be employed with the LRASM-A weapon system. The CONOPS and findings from initial mission effectiveness analysis versus threat systems and ships, conducted using models and simulation developed under IRAD, shall be provided at the PDR. The CONOPS and mission effectiveness analysis shall be used to generate a system specification. The Contractor shall conduct system trade studies to allow requirements from the system specification to be flowed down to the major subsystems that will be added to or significantly modified from the baseline JAASM-ER. The Contractor shall develop a specification tree. Requirements traceability shall be documented using a database tool.

The Contractor shall provide a System Requirements Report (SRR), a System Engineering Management Plan (SEMP), a System Specification, a Concept of Operations (CONOPS) Report, a Preliminary Design Report (PDR), and an Operational Effectiveness Report (OER).

4.1.3.2 Program Management

The Contractor shall develop a Program Management Plan describing the management and organization for the program. The Contractor shall provide the managerial oversight and direction for the program. This will include planning, financial reporting, security, personnel, subcontract management and administration, procurement, production management, product assurance (quality), and technical direction. The Contractor shall manage all subcontracts.

The Contractor shall provide a Project Management Plan (PMP), a level four Work Breakdown Structure (WBS) and Integrated Master Schedule (IMS), a SDD Transition Plan, and a Phase 1 Final Technical Report. The Final Technical Report shall be provided in the format specified in Contract Section F2.

4.1.4 Systems Test and Evaluation

The Contractor shall develop LRASM-A risk reduction, development, and demonstration test plans. The Contractor shall coordinate with test facilities to plan potential Phase 2 test activity.

The Contractor shall issue a draft Test and Evaluation Master Plan (TEMP) including all testing through SDD.

5.0 Period of Performance

The period of performance for Phase 1 shall be 9 months.

6.0 Program Management

6.1 Master Schedule and Reports

The Contractor shall appoint a Program Manager to provide overall program direction with authority for technical, personnel, and all other resource allocations. The Contractor shall develop a master plan and integrated master schedule (IMS). The Program Manager shall provide monthly R&D status reports to the individuals specified in Contract Section F-3. The report shall be provided in the format and timeline specified in Contract Section C-2(a)(1).

6.2 Management Reviews

The Contractor shall host a program kickoff Initial Review (IR) within 30 days from the date of contract signing. The following activities shall be included in the IR.

- Presentation of the proposed LRASM-A system design, including supporting trade studies, and preliminary CONOPS.
- Review of the scope of the proposed effort, including all design and analysis tasks, and all tests.
- Review program security classification guides and implementation plans.
- Identify program team and establish the business relationship for performance of subcontracts. Surface and discuss issues affecting successful completion of the subcontracts, such as the technical acceptance process.
- Review how the cost, schedule, technical, and quality requirements will be tracked and their associated risk matrix.
- Review the Program Plan.

6.3 Technical Reviews

The Contractor shall conduct a System Requirements Review (SRR), System Design Review (SDR), and a Preliminary Design Review (PDR) during Phase 1 at its Orlando facilities.

The SRR shall cover the following items:

- a) Configuration Management Plan
- b) Generation of specifications (e.g., system or lower level performance or development specifications, interface specifications)
- c) IMS
- d) Preliminary mission and requirements analysis
- e) Preliminary allocation of requirements and associated tolerances to lower level configuration items (CIs)
- f) Program risk analysis
- g) Trade studies
- h) Functional flow analysis
- i) Integrated test planning
- j) System interface studies

The SDR shall cover the following items:

- a) Program overview
- b) IMS
- c) System level Interface Requirements Specification (IRS) and Interface Control Document (ICD)
- d) Requirements traceability matrix
- e) Software and hardware requirements: preliminary
- f) Physical architecture description
- g) Summary of trade studies performed
- h) Preliminary operational effectiveness results
- i) Program schedules and status

- j) Program risk and opportunity assessment, and risk and opportunity handling plans
- k) Other documents and materials as necessary to satisfy program requirements

The PDR shall cover the following items:

- a) Program overview
- b) IMS
- c) Requirements and interfaces
- d) Requirements flow down and allocation
- e) Hardware, software, and support equipment development
- f) TEMP and test execution data
- g) CONOPS
- h) Operational effectiveness
- i) LCCA
- j) Program risk analysis
- k) Open issues
- l) Phase 2 proposed scope and planning review
- m) SDD transition plan

6.4 Risk Management

The Contractor shall provide a Risk Management Plan (RMP). The Contractor shall manage risk in accordance with the RMP. The Contractor shall analyze and report on the program risks in accordance with an RMP.

The RMP shall include the following:

- a) Risk allocation, definition, and documentation of its characteristics
- b) Risk evaluation, allocation of the mutual dependencies between risk factors, probability analysis of each risk, and determination of its weight
- c) Definition of the measures to be taken for minimizing or avoiding the risk
- d) Risk control by consistent analysis of the results of the measures taken

Baseline program risk evaluations and waterfalls shall be presented at the program kickoff meeting and statused at technical reviews. A short summary of the risk item status shall be provided in the monthly program status reports, and any off nominal waterfall progress discussed during weekly telecons.

6.5 Methods of Communication

The Contractor shall participate in weekly telecons with DARPA.

7.0 Integrated Logistics Support Requirements

7.1 Reliability

The Contractor shall maintain an estimate of system reliability based on JASSM measured performance and analysis of added or modified mission equipment. The estimate shall be used in the mission effectiveness estimate. The reliability shall be reported at the PDR.

7.2 Safety

The Contractor shall prepare the source data and develop the application for Interim Hazard Classifications for any hardware containing explosives or fuels for shipping authority. The Contractor shall provide a System Safety Hazard Assessment (SSHA).

7.3 Life Cycle Cost Analysis

The Contractor shall provide a Lifecycle Cost Analysis (LCCA).

OTHER REPORTS AND DELIVERABLES:

Other Reports and Deliverables	Draft	Final	Update
R&D Status Reports		Refer to Section C-2(a)(1), F-1, and F-3	
Contract Work Breakdown Structure		1 month post C/A	N/A
Master Plan and Integrated Master Schedule (IMS)		1 months post C/A	N/A
CONOPS	3 months post C/A	2 weeks prior to PDR	3 weeks after PDR
Test and Evaluation Master Plan (TEMP)	1 month after CA	2 weeks prior to PDR	3 weeks after PDR
Systems Engineering Management Plan (SEMP)		1 month after CA	Whenever changes occur
Risk Management Plan (RMP)		1 month after CA	Whenever changes occur
Program Management Plan (PMP)		1 month after CA	Whenever changes occur
Software Management Plan (SMP)		1 month after CA	Whenever changes occur
System Safety Hazard Assessment (SSHA)		2 weeks prior to PDR	3 weeks after PDR
LRASM Missile Performance Specification		4 weeks after SRR	2 weeks prior to PDR
System Requirement Report		3 weeks after SRR	N/A
Preliminary Design Report		2 weeks prior to PDR	3 weeks after PDR
Operational Effectiveness Estimate		2 weeks prior to PDR	3 weeks after PDR
Procurement and Lifecycle Cost Estimate		2 weeks prior to PDR	3 weeks after PDR
SDD Transition Plan		2 weeks prior to PDR	3 weeks after PDR
Final Phase I Report		Upon Phase I completion	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

Pursuant to the attached Contractor's request in a letter (Document Control No.: LR-OGC-2010-000004-0) dated March 12, 2010, the purpose of the modification is to extend the term of the Contract from March 28, 2010 to June 30, 2010 at no additional cost to the Government. Accordingly, make the following revision:

SECTION F - DELIVERIES OR PERFORMANCE

Revise Section F-1 - Term of Contract – read as follows:

The term of the Contract commences on June 29, 2009 and continues through **June 30, 2010**. *

** An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).*

~ End ~

Lockheed Martin Missiles and Fire Control

5600 Sand Lake Road, MP-154 Orlando, Florida 32819-8907



March 12, 2010

Document Control No.: LR-OGC-2010-000004-0

DARPA/Contracts Management Office (CMO)

ATTN: (b)(6)

3701 North Fairfax Drive
Arlington, VA 22203-1714

Email: (b)(6)

Subject: Contract HR0011-09-C-0096 Long Range Anti-Ship Missile (LRASM-A);
Request for Extension of Period of Performance

Dear (b)(6)

Lockheed Martin (LM) requests a no-cost period of performance extension to Contract HR0011-09-C-0096, Phase 1 Long Range Anti-Ship Missile (LRASM-A). This extension is required for administrative purposes only and will not require additional funding.

Currently, the contract work scope period of performance ends 28 March 2010. LM requests a no-cost period of performance extension through 30 June 2010. The purpose of the extension is to enable LM to reply to inquiries and clarifications regarding LRASM system matters.

Should questions arise regarding the above mentioned request, please contact (b)(4) at the above address and mail point or via the following modes:

Email Address: (b)(4)

Telephone: (b)(4)

Very truly yours,

Lockheed Martin Corporation
Missiles and Fire Control

(b)(4)

cc: DCMA (b)(6)

(b)(6)

(b)(6)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE: U		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE: 1-Jul-10		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR ARLINGTON VA 22203		CODE: HR0011		7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 4B ORLANDO FL 32819-8907		CODE: S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE: 04939		FACILITY CODE:					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offer 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 working 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. 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 CONTRACT ORDERS IF 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							
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).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF By Mutual Agreement of the Parties							
D. OTHER (Specify type of modification and authority)							
F. IMPORTANT: Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible) Modification Control Number: pw choi10846 The purpose of this modification is to: a) Extend the period of performance from 30-Jun-2010 to 30-Jul-2010, at no additional cost to the Government b) Revise section F-1 to reflect period of performance changes. Except as modified above, all terms of HR0011-09-C-0096 remain unchanged and in effect.							
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: (b)(4)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: (b)(6) EMAIL: (b)(6)			
15B. (b)(4)		15C. DATE SIGNED 1 July 2010		16B. (b)(6) BY: _____		16C. DATE SIGNED 7/1/10	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-JUN-2009 TO 30-JUN-2010	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-JUN-2009 TO 30-JUL-2010	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

The following have been modified:

FROM:

F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through **June 30, 2010**. *

* An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract 11R0011-09-C-0096).

TO:

F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through **July 30, 2010**. *

* An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract 11R0011-09-C-0096).

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE OF PAGES 1 3
2. AMENDMENT/MODIFICATION NO. P00006	3. EFFECTIVE DATE 26-Jul-2010	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)		
6. ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR ARLINGTON VA 22203	CODE HR0011	7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907	CODE S1005A		
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP126 ORLANDO FL 32819-8907			9A. AMENDMENT OF SOLICITATION NO.		
			9B. DATED (SEE ITEM 11)		
			X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096		
			X 10B. DATED (SEE ITEM 13) 29-Jun-2009		
CODE: 04939			FACILITY CODE:		
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<p>The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.</p> <p>Offer 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.</p>					
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.					
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).					
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible) Modification Control Number jyeung10919					
(See Pages 2 and 3)					
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 (b)(4)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
15B. CO (b)(4)		15C. DATE SIGNED 7/26/10		16B. UNITED STATES OF AMERICA (b)(6)	
(Signature of person authorized to sign)		BY: (Signature of Contracting Officer)		16C. DATE SIGNED 7/26/10	

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

Pursuant to the Contractor's request in a letter referenced LR-OGC-2010-000004-2, dated July 22, 2010, the purpose of the modification is to extend the term of the Contract by two (2) months from July 30, 2010 to September 30, 2010 at no additional cost to the Government. Accordingly, make the following changes:

SECTION F - DELIVERIES OR PERFORMANCE

- The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-JUN-2009 TO 30-JUL-2010	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-JUN-2009 TO 30-SEP-2010	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

The following Delivery Schedule item for SUBCLIN 000101 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-JUN-2009 TO 30-JUL-2010	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
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POP 29-JUN-2009 TO N/A
30-SEP-2010

OFFICE OF NAVAL RESEARCH
 GIL GRAFF
 875 N. RANDOLPH STREET
 ONR CODE 35
 ARLINGTON VA 22203
 703-588-0703
 FOBI: Destination

N00014

- Revise Section F-1 Term of Contract:

From: F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through July 30, 2010. *

** An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).*

To: F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through **September 30, 2010.** *

** An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).*

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. P00007		3. EFFECTIVE DATE 4-Oct-10	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)
6. ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N FAIRFAX DR ARLINGTON VA 22203		CODE HR0011	7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8607		CODE S1005A
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8607			9A. AMENDMENT OF SOLICITATION NO.		
			9B. DATED (SEE ITEM 11)		
			X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096		
			X 10B. DATED (SEE ITEM 13) 29-Jun-2009		
CODE 04939		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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)					
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACT 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.					
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).					
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By Mutual Agreement of the Parties					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jwchoi101115 The purpose of this modification is to: a) Extend the period of performance from September 30, 2010 to October 31, 2010, at no additional cost to the Government. b) Revise section F-1 to reflect changes to period of performance. Except as modified above, all terms and conditions of HR0011-09-C-0096 remain unchanged and in effect.					
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 (b)(4)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
		TEL. (b)(6)		EMAIL (b)(6)	
15. (b)(4)		15C. DATE SIGNED 9/30/10		16B. UNITED STATES OF AMERICA (b)(6)	
(Signature of person authorized to sign)				16C. DATE SIGNED 10/4/10	
		(Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-JUN-2009 TO 30-SEP-2010	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-JUN-2009 TO 31-OCT-2010	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

The following have been modified:

FROM:

F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through September 30, 2010. *

* *An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).*

TO:

F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through October 31, 2010. *

* *An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).*

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. P00008		3. EFFECTIVE DATE 10/14/10		4. REQUISITION/PURCHASE REQ NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR ARLINGTON VA 22203		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 40 ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE: 04939				FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACT 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.							
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).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By Mutual Agreement of the Parties							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jw choi1127 The purpose of this modification is to: a) Extend the period of performance from October 31, 2010 to November 30, 2010, at no additional cost to the Government b) Revise section F-1 to reflect changes to period of performance. Except as modified above, all terms and conditions of HR0011-09-C-0096 remain unchanged and in effect.							
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) (b)(4)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
15B. DATE SIGNED (b)(4)				16B. DATE SIGNED (b)(6)			
15C. DATE SIGNED 2010 OCT 14				16C. DATE SIGNED 10/14/10			

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30 105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-JUN-2009 TO 31-OCT-2010	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-JUN-2009 TO 30-NOV-2010	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

The following have been modified:

FROM:

F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through October 31, 2010. *

* An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).

TO:

F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through November 30, 2010. *

* An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U	PAGE OF PAGES 1 3
2. AMENDMENT/MODIFICATION NO. P00009	3. EFFECTIVE DATE 30-Nov-2010	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)		
6. ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR. ARLINGTON VA 22203	CODE: HR0011	7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907	CODE: S1005A		
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907			9A. AMENDMENT OF SOLICITATION NO.		
			9B. DATED (SEE ITEM 11)		
			X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096		
			X 10B. DATED (SEE ITEM 13) 29-Jun-2009		
CODE: 04939			FACILITY CODE		
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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)					
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.					
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).					
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By mutual agreement of the Parties.					
D. OTHER (Specify type of modification and authority):					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: cglsta11144 The purpose of this modification is to a) Extend the period of performance from November 30, 2010 to December 31, 2010, at no additional cost to the Government. b) Revise Section F-1 to reflect changes to the period of performance. c) Revise Section H-11 to incorporate the Contractor's GFY 2011 Comprehensive Small Business Subcontracting Plan. Except as modified above, all terms and conditions of Contract HR0011-09-C-0096 remain unchanged and in full force and effect.					
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) (b)(4)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
15C. DATE SIGNED 2010 Nov 30		16C. DATE SIGNED 11/30/10			
BY: (Signature of Contracting Officer)		BY: (Signature of Contracting Officer)			

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-82)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-JUN-2009 TO 30-NOV-2010	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-JUN-2009 TO 31-DEC-2010	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

The following have been modified:

FROM:

F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through November 30, 2010. *

* An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).

TO:

The term of the Contract commences on June 29, 2009 and continues through December 31, 2010. *

* An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).

SECTION H - SPECIAL CONTRACT REQUIREMENTS

The following have been modified:

FROM:

H-11 Small Business Subcontracting Plan and Goals

The Contractor's GFY 2009 Comprehensive Small Business Subcontracting Plan for the period from October 1, 2008 through September 30, 2009 approved on September 30, 2008 is incorporated herein and made a part of the Contract by reference.

TO:

H-11 Small Business Subcontracting Plan and Goals

The Contractor's GFY 2011 Comprehensive Small Business Subcontracting Plan for the period from October 1, 2010 through September 30, 2011 approved on September 24, 2010 is incorporated herein and made a part of the Contract by reference.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				F. CONTRACT ID CODE U	PAGE OF PAGES 1 13
2. AMENDMENT/MODIFICATION NO. P00010	3. EFFECTIVE DATE 14 Dec 10	4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE	5. PROJECT NO. (If applicable)		
6. ISSUED BY: CODE HR0011 DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR. ARLINGTON VA 22203	7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907		CODE S1005A		
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907			9A. AMENDMENT OF SOLICITATION NO.		
			9B. DATED (SEE ITEM 11)		
			X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096		
			X 10B. DATED (SEE ITEM 13) 29-Jun-2009		
CODE 04939 FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer: <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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) See Schedule					
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.					
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).					
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By mutual agreement of the Parties.					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: cglsta11155 See page 2.					
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) (b)(4)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)		
			TEL: (b)(6) (b)(6) EMAIL: (b)(6)		
15C. DATE SIGNED 2010 DEC 13			16C. DATE SIGNED 14 Dec 10		
			BY: (Signature of Contracting Officer)		

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

This modification adds Phase 2 of the LRASM program. Accordingly, the contract is modified as follows:

SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by \$60,357,197.00 from \$9,986,053.00 to \$70,343,250.00.

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0002 is added as follows:

<u>ITEM</u> <u>NO</u>	<u>SUPPLIES/SERVICES</u>	<u>ESTIMATED</u> <u>COST</u>	<u>FIXED</u> <u>FEE</u>	<u>TOTAL EST.</u> <u>COST PLUS</u> <u>FIXED FEE</u>
0002*	LRASM A Phase 2 CPFF The Contractor shall perform Phase 2 of the Long Range Anti-Ship Missile (LR-ASM) Demonstration Program in accordance with Attachment No. 6 - Phase 2 Statement of Work and Section C-1 of the Contract. Technical data, reports, and other deliverables are not separately priced and shall be provided to the Government in accordance with Sections C, F, and Attachment No. 6 of the Contract. FOB: Destination	(b)(4)		\$60,357,197.00

* A CPFF amount for 3 JASSM ER configuration engines is not included in the CLIN 0002, LRASM A, Phase 2 negotiated CPFF. An additional CPFF amount for the engines will be separately proposed, negotiated and incorporated as part of CLIN 0002. Performance of the CLIN 0002 is based upon incorporation of the additional negotiated CPFF amount for the engines.

SUBCLIN 000201 is added as follows:

<u>ITEM NO</u>	<u>SUPPLIES/SERVICES</u>	<u>ESTIMATED COST</u>	<u>FIXED FEE</u>	<u>TOTAL EST. COST PLUS FIXED FEE</u>
000201	Funding for CLIN 0002 CPFF Funding for CLIN 0002 FOB: Destination AO No. Z907/00	\$0.00	\$0.00	\$0.00
	ACRN AB			\$11,690,000.00

SUBCLIN 000202 is added as follows:

<u>ITEM NO</u>	<u>SUPPLIES/SERVICES</u>	<u>ESTIMATED COST</u>	<u>FIXED FEE</u>	<u>TOTAL EST. COST PLUS FIXED FEE</u>
000202	Funding for CLIN 0002 CPFF Funding for CLIN 0002 FOB: Destination AO No. Z907/01	\$0.00	\$0.00	\$0.00
	ACRN AC			\$16,155,000.00

SECTION C - DESCRIPTIONS AND SPECIFICATIONS

Section C has been modified to read as follows:

C-1 Scope of Work

(a) The Contractor shall furnish the necessary personnel, materials, facilities and other services as may be required to perform Contract Line Item Numbers (CLIN) 0001 and 0002 in accordance with Attachment Nos. 1 and 6 hereto.

C-2 Reports and Other Deliverables

(a) The Contractor shall submit the following reports and other deliverables in accordance with the delivery schedule set forth in Section F. Reports and other deliverables shall be submitted in writing, as defined in FAR 2.101, or as specified below:

- (1) R&D STATUS REPORT* (CLINs 0001 and 0002)

This brief narrative shall contain the following:

- (i) For first report only; the date work actually started.
- (ii) Description of progress during the reporting period, supported by reasons for any change in approach reported previously
- (iii) Planned activities and milestones for the next reporting period.
- (iv) Description of any major items of experimental or special equipment purchased or constructed during the reporting period.
- (v) Notification of any changes in key personnel associated with the contract during the reporting period.
- (vi) Summary of substantive information derived from noteworthy trips, meetings, and special conferences held in connection with the contract during the reporting period.
- (vii) Summary of all problems or areas of concern.
- (viii) Related accomplishments since last report.
- (ix) Fiscal status, to include reporting of summary level financial data in the following format:

**NOTE: In accordance with DFARS 252.227-7013(e)(iii), the Contractor (Prime and Subcontractor) shall notify the Government, via the Monthly Status Report, of any data deliverables which will be furnished to the Government with less than Unlimited Rights that are in addition to those stipulated in Attachment No. 3 to the Contract.*

R&D STATUS REPORT PROGRAM FINANCIAL STATUS

Work Breakdown		Cumulative to Date			At Completion	
Structure or Task Element	Planned Expend	Actual Expend	% Budget Compl	At Compl	Latest Revised Estimate	Remarks
Subtotal: _____						
Management Reserve: _____						
Or Unallocated Resources: _____						
TOTAL: _____						

Note: Budget at completion changes only with the amount of any scope changes. (Not affected by underrun or overrun)

Based on currently authorized work:

Is current funding sufficient for the current fiscal year (FY)? (Explain in narrative if "NO")

YES NO

What is the next FY funding requirement at current anticipated levels?

\$ _____

Have you included in the report narrative any explanation of the above data and are they cross-referenced?

YES NO

(2) FINAL TECHNICAL REPORT FOR PHASE 1 (CLIN 0001)

This report shall document the results of the complete effort and should be delivered at the completion of Phase 1. Title pages shall include a disclaimer worded substantially as follows:

“The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressly or implied, of the Defense Advanced Research Projects Agency or the U.S. Government.”

The Final Technical Report summary shall include:

- Task Objectives
- Technical Problems
- General Methodology (i.e., literature review, laboratory experiments, surveys, etc.)
- Technical Results
- Important Findings and Conclusions
- Significant Hardware Development
- Special Comments
- Implications for Further Research
- Standard Form 298, August 1998

(3) FINAL TECHNICAL REPORT FOR PHASE 2 (CLIN 0002)

This report shall document the results of the complete effort and should be delivered at the completion of Phase 2. Title pages shall include a disclaimer worded substantially as follows:

“The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressly or implied, of the Defense Advanced Research Projects Agency or the U.S. Government.”

The Final Technical Report summary shall include:

- Task Objectives
- Technical Problems
- General Methodology (i.e., literature review, laboratory experiments, surveys, etc.)
- Technical Results
- Important Findings and Conclusions
- Significant Hardware Development
- Special Comments
- Implications for Further Research
- Standard Form 298, August 1998

(4) ADDITIONAL MISCELLANEOUS DATA DELIVERABLES (CLINs 0001 and 0002)

The Contractor shall also deliver those items listed in the Attachment Nos. 1 and 6. The Contractor shall adhere to the schedule, as applicable, contained in the Statements of Work. Presentation materials (hard and soft copy) for all briefings given to the Government shall be provided in the Contractor's format.

(b) Reports delivered by the Contractor in the performance of the Contract shall be considered "Technical Data" as defined in Section I Contract clauses entitled "Rights in Technical Data – Noncommercial Items" and "Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation."

(c) Bulky Reports shall be mailed by other than first-class mail unless the urgency of submission requires use of first-class mail. In this situation, one copy shall be mailed first-class and the remaining copies forwarded by less than first-class.

(d) All papers and articles published as a result of DARPA sponsored research shall include a statement reflecting the sponsorship. In addition, a bibliography of the titles and authors of all such papers are to be included in the Final Technical Report

(1) The cover or title page of each of the above reports or publications shall have the following citation:

Sponsored by
 Defense Advanced Research Projects Agency
 Tactical Technology Office (TTO)
 Program: Long Range Anti-Ship Missile (LR-ASM) Demonstration Program
 Issued by DARPA/CMO under Contract No. HR0011-09-C-0096

(2) The title page shall include a disclaimer worded substantially as follows:

"The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressly or implied, of the Defense Advanced Research Projects Agency or the U.S. Government."

(3) The Final Technical Report for Phases 1 and 2 must (i) be prepared in accordance with American National Standards Institute (ANSI) Standard Z39.18; (ii) include a Standard Form 298, August 1998; and (iii) be marked with an appropriate Distribution Statement.

(4) Distribution Statement E applies. "Distribution authorized to DoD Components only due to the inclusion of proprietary information and to prevent Premature Dissemination of potentially critical technological information. Other requests for this document shall be referred to DARPA's Public Release Office via email at prc@darpa.mil."

Note to Contractor: In accordance with the applicable Data Rights clauses(s), all proprietary information within the data deliverables shall be clearly identified/marked as such for each such occurrence (use of footnotes, or similar forms of reference, for purposes of such identification is encouraged).

SECTION F - DELIVERIES OR PERFORMANCE

Section F has been modified to read as follows:

F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through February 15, 2013. *

* An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).

F-2 Reports and Other Deliverables

Delivery of all reports and other deliverables shall be made to the addressee specified in F-3 entitled "Report Distribution" in accordance with the following:

<u>CLIN</u>	<u>Description</u>	<u>Due Date</u>
0001	R&D Status Report	On a monthly basis, within fifteen (15) days after the end of the previous reporting month
0001	Final Technical Report for Phase 1	Upon completion of Phase 1
0001	Additional Miscellaneous Data Deliverables	See Attachment No. 1 – Phase 1 Statement of Work
0002	R&D Status Report	On a monthly basis, within fifteen (15) days after the end of the previous reporting month
0002	Final Technical Report for Phase 2	Upon completion of Phase 2
0002	Additional Miscellaneous Data Deliverables	See Attachment No. 6 – Phase 2 Statement of Work

F-3 Report Distribution

- (a) DARPA/Tactical Technology Office (TTO)
ATTN: Robert McHenry
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: robert.mchenry@darpa.mil
(one copy of every report and deliverable)
- (b) DARPA/Tactical Technology Office (TTO)
ATTN: Assistant Director, Program Management (ADPM)
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: adpm-tto@darpa.mil
(one copy of the R&D Status Reports and Final Reports for Phases 1 and 2)
- (c) Gil Graff, Contracting Officer's Representative
Office of Naval Research
One Liberty Center
875 North Randolph Street
Arlington, VA 22203-1915
Email: Gil.Graff@navy.mil
(one copy of every report and deliverable)
- (d) DARPA/Library
3701 North Fairfax Drive
Arlington, VA 22203-1714

Email: gil.graff@navy.mil
(one copy of the Final Reports for Phases 1 and 2)

(e) Defense Technical Information Center

- (1) Email: TR@dtic.mil
(one electronic copy of the Final Reports for Phases 1 and 2, if unclassified)
OR
(2) Attn: DTIC-BCS
8725 John J. Kingman Road, Suite 0944
Fort Belvoir, VA 22060-0944
(two hard copies of the Final Reports for Phases 1 and 2, if unclassified)

(f) DARPA/Contracts Management Office (CMO)

ATTN: (b)(6)
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: reportscg@darpa.mil
(one copy of the R&D Status Reports and Final Reports for Phases 1 and 2)

Note 1: (a) through (f) – submissions of unclassified materials only. Submission of classified material shall be coordinated through DARPA SID and/or Robert McHenry, DARPA Program Manager, in accordance with the DD 254, as applicable.

Note 2: For the Final Technical Report(s), the Contractor must also comply with the distribution requirements of DFARS 252-235-7011, as applicable.

F-4 Notice Regarding Late Delivery

In the event the Contractor anticipates difficulty in complying with the Contract delivery schedule, the Contractor shall immediately notify the Contracting Officer in writing, giving pertinent details, including the date by which it expects to make delivery; PROVIDED, however, that this date shall be informational only in character and the receipt thereof shall not be construed as a waiver by the Government of any contract delivery schedule, or any rights or remedies provided by law or under this Contract.

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by \$27,845,000.00 from \$9,986,053.00 to \$37,831,053.00.

SUBCLIN 000201:

Funding on SUBCLIN 000201 is initiated as follows:

ACRN: AB

CIN: 00000000000000000000000000000000

Acctng Data: 1701319 W3DJ 000 RA353 0 068342 2D 000000 02911000LAS0 068342 AA

Increase: \$11,690,000.00

Total: \$11,690,000.00

SUBCLIN 000202:

Funding on SUBCLIN 000202 is initiated as follows:

ACRN: AC

CIN: 00000000000000000000000000000000

Acctng Data: 9700400 1320 Z907 POC40 2525 DPAC 0 5439 S12136 63286E

Increase: \$16,155,000.00

Total: \$16,155,000.00

SECTION H - SPECIAL CONTRACT REQUIREMENTS

Section H has been modified to read as follows:

H-1 Type of Contract

This is a Cost-Plus-Fixed-Fee, Completion Contract.

H-2 Public Release or Dissemination of Information

(a) There shall be no dissemination or publication, except within and between the Contractor and any subcontractors, of information developed under this contract or contained in the reports to be furnished pursuant to this contract without prior written approval of the DARPA Public Release Center (DARPA/PRC). All technical reports will be given proper review by appropriate authority to determine which Distribution Statement is to be applied prior to the initial distribution of these reports by the Contractor. Papers resulting from unclassified contracted fundamental research are exempt from prepublication controls and this review requirement, pursuant to DoD Instruction 5230.27 dated October 6, 1987.

(b) When submitting material for written approval for open publication as described in subparagraph (a) above, the Contractor must submit a request for public release request to the DARPA PRC and include the following information: 1) Document Information: document title, document author, short plain-language description of technology discussed in the material (approx 30 words), number of pages (or minutes of video) and document type (briefing, report, abstract, article, or paper); 2) Event Information: event type (conference, principle investigator meeting, article or paper), event date, desired date for DARPA's approval; 3) DARPA Sponsor: DARPA Program Manager, DARPA office, and contract number; and 4) Contractor's Information: POC name, e-mail and phone. Allow four weeks for processing; due dates under four weeks require a justification. Unusual electronic file formats may require additional processing time. Requests can be sent either via e-mail to prc@darpa.mil or via 3701 North Fairfax Drive, Arlington VA 22203-1714, telephone (571) 218-4235.

(c) See also Section I, Clause 252.235-7010, "Acknowledgement of Support and Disclaimer."

H-3 Key Personnel

(a) The Contractor shall notify the Contracting Officer prior to making any change in key personnel. Key personnel are defined as follows:

(b)(4)

(b) The Contractor must demonstrate that the qualifications of the prospective personnel are equal to or better than the qualifications of the personnel being replaced. Notwithstanding any of the foregoing provisions, key personnel shall be furnished unless the Contractor has demonstrated to the satisfaction of the COR that the qualifications of the proposed substitute personnel are equal to or better than the qualifications of the personnel being replaced.

H-4 LRASM Subsystem Interface Definition

The parties agree that if a Phase 2 effort for demonstrating LRASM capabilities is awarded, the Contractor agrees to include in the proposal for Phase 2, the effort for providing current electrical and mechanical interfaces for the subsystems listed below. The Contractor agrees that if the Government accepts this effort, the interfaces will be delivered with Unlimited Rights as defined in DFAR 252.227.7013. In the event the Government uses these interfaces for developing alternate LRASM subsystems, the Contractor is not responsible for the performance of those subsystems or the overall LRASM system if the subsystems affect overall LRASM performance.

Subsystem Listing

Engine

GPS Receiver

GPS Antenna

Inertial Measurement Unit

Warhead

Fuze

Mission Control Unit

(b)(3); 22 USC §2778(e)
Sec. 38(e)

H-5 Invention Disclosure and Reports

All written communications required by DFARS clause 252.227-7038, "Patent Rights - Ownership by the Contractor (Large Business)" (DEC 2007) shall be submitted to the Administrative Contracting Officer (ACO). All required reporting shall be accomplished using the i-Edison.gov reporting website: <https://s-edison.info.nih.gov/iEdison/>.

H-6 Contractor Representations and Certifications

The Contractor's Representations and Certifications dated May 27, 2009 and a copy of the Contractor's Online Representations and Certifications (ORCA) effective from April 13, 2009 through April 13, 2010 are incorporated herein by reference.

H-7 Insurance Schedule

The Contractor shall maintain the types of insurance listed in FAR 28.307-2 (a), (b) and (c), with the minimum amounts of liability indicated therein. The types of insurance coverage listed in paragraphs (d) and (e) shall also be maintained when applicable.

H-8 Travel

(a) Reimbursement for travel-related expenses shall be in accordance with the Contractor's approved travel policy. The Federal Travel Regulations, Joint Travel Regulations (JTR), and Standardized Regulations as stated in FAR 31.205-46 will be used as a guide in determining reasonableness of per diem costs. Costs for travel shall be allowable subject to the provisions of FAR 31.205-46.

(b) In connection with direct charge to the contract of travel-related expenses, the Contractor shall hold travel to the minimum reasonable costs required to meet the objectives of the contract, and be compliant with Federal Travel Regulations (FTR), and Contractor's travel policy and procedures. In the event substantial deviations from the amount of travel agreed to during contract negotiations will occur, Contractor shall notify the Contracting Officer in order to seek necessary approvals. When applicable, the Contractor shall notify the COR of proposed travel of an employee beyond that agreed to during negotiations. It is understood that the Contractor shall manage travel-related budget and respective Other Direct Costs (ODCs) at the dollar level that is agreed to during negotiations to support program events, meeting, and other related activities..

(c) Approval of the Contracting Officer shall be obtained in advance for attendance by personnel at training courses, seminars, and other meetings not directly related to contract performance if the costs for the courses, seminars, and other meetings are charged to the contract.

(d) All foreign travel shall be authorized and approved in advance, in writing, by the Contracting Officer. Request for such travel must be submitted to the Contracting Officer at least thirty (30) days in advance of traveler's anticipated departure date, and shall include traveler's itinerary of United States Flag Air Carriers.

H-9 Metric System

(a) The Defense Advanced Research Projects Agency (DARPA) will consider the use of the metric system in all of its activities consistent with operational, economical, technical and safety requirements.

(b) The metric system will be considered for use in all new designs. When it is deemed not to be in the best interest of the DoD to provide metric design, justification shall be provided.

(c) Physical and operational interfaces between metric items and U.S. customary items will be designed to assure that interchangeability and interoperability will not be affected.

(d) Existing designs dimensioned in U.S. customary units will be converted to metric units only if determined to be necessary or advantageous. Unnecessary retrofit of existing systems with new metric components will be avoided where both the new metric and existing units are interchangeable and interoperable. Normally, the system of measurement in which an item is originally designed will be retained for the life of the item.

(e) During the metric transition phase hybrid metric and U.S. customary designs will be necessary and acceptable. Material components, parts, subassemblies, and semi-fabricated material, which are of adequate or when it is otherwise specifically determined to be in the best interest of the Department of Defense. Bulk materials will be specified and accepted in metric units when it is expedient or economical to do so.

(f) Technical reports, studies, and position papers, (except those pertaining to items dimensioned in U.S. customary units) will include metric units of measurement in addition to or in lieu of U.S. customary units. With respect to existing contracts, this requirement applies only if such documentation can be obtained without an increase in contract costs.

(g) Use of the dual dimensions (i.e., both metric and U.S. customary dimensions) on drawings will be avoided unless it is determined in specific instances that such usage will be beneficial. However, the use of tables on the document to translate dimensions from one system of measurement to the other is acceptable.

H-10 Small Business Subcontracting Plan and Goals

The Contractor's GFY 2011 Comprehensive Small Business Subcontracting Plan for the period from October 1, 2010 through September 30, 2011 approved on September 24, 2010 is incorporated herein and made a part of the Contract by reference.

H-11 Proprietary Technical Data and Computer Software

Any deliverable technical data or computer software developed or generated at private expense and considered to be proprietary by the Contractor or subcontractors shall be delivered in accordance with DFARS 252.227-7013 and 252.227-7014. A list of such data and/or software is incorporated into the Contract as Attachment No. 3.

H-12 Export Control Clause

(a) The contractor shall comply with all U. S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of (including deemed exports) hardware, technical data, and software, or for the provision of technical assistance.

(b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at any Government installation (whether in or outside the United States), where the foreign person will have access to export-controlled technical data or software.

(c) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.

(d) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.

H-13 Pre-Contract Costs

The extent of allowability of costs incurred by the Contractor prior to the effective date of the Contract shall be governed by the Advance Agreement to Authorize Incurrence of Pre-Award Costs dated May 18, 2009 *as amended on June 15, 2009*, a copy of which is incorporated into the Contract as Attachment No. 4 under Section J.

H-14 Contractor Code of Business Ethics

The "agency Office of the Inspector General" referenced in FAR clause 52.203-13 - Contractor Code of Business Ethics (DEC 2008) as contained in Section I of this Contract shall be the Department of Defense Office of the Inspector General (DoD OIG). Contact information is as follows:

Office of the Inspector General
United States Department of Defense
Investigative Policy and Oversight
Contract Disclosure Program
400 Army Navy Drive, Suite 1037
Arlington, VA 22202-4704
Toll Free Telephone: 866-429-8011

H-15 Military Security Classification

Military security requirements in the performance of the Contract shall be maintained in accordance with the DD Form 254, Contract Security Classification Specification, contained in Section J, Attachment No. 5.

H-16 Restrictions on Printing

Unless otherwise authorized in writing by the Contracting Officer, reports, data, or other written material produced using funds provided by this contract and submitted hereunder shall be reproduced only by duplicating processes and shall not exceed 5,000 single page reports or a total of 25,000 pages of a multiple-page report. These restrictions do not preclude the writing, editing, preparation of manuscript or reproducible copy of related illustrative materials if required as part of this contract, or incidental printing such as forms or materials necessary to be used by the Contractor to respond to the terms of the contract.

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

- Attachment No. 1 - Statement of Work (revised) entitled, "Long Range Anti-Ship Missile (LR-ASM) Demonstration Program, Phase 1, dated October 29, 2009" (9 pages)
- Attachment No. 2 - Contracting Officer's Representative (COR) Designation Memorandum, dated June 9, 2009 (3 pages)
- Attachment No. 3 - Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software, Revision 1, dated November 11, 2010 (8 pages)
- Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs, dated May 18, 2009, as amended on June 15, 2009 (3 pages)
- Attachment No. 5 - Contract Security Classification Specification, DD Form 254, dated June 23, 2009 (5 pages)
- Attachment No. 6 - LRASM Phase 2 Statement of Work, dated November 11, 2010 (17 pages)
- Attachment No. 7 - Government Furnished Equipment/Property (GFE/GFP) List, dated November 11, 2010 (1 page)

(End of Summary of Changes)

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**STATEMENT OF WORK
FOR
LONG RANGE ANTI SHIP MISSILE (LRASM)
VARIANT A - AIR LAUNCHED

PHASE 2**

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1.0 Introduction

The purpose of this Statement of Work is to identify the requirements for Lockheed Martin (“Contractor”) to support the Defense Advanced Research Projects Agency (DARPA) in the Long Range Anti-Ship Missile (LRASM) program for an air launched flight demonstration of LRASM-A. The system to be developed under this Statement of Work (SOW) shall be referred to as “LRASM-A.”

The program is divided into two phases. Phase 1 culminated in a Preliminary Design Review (PDR) of a ship launched version. Phase 2 will complete a Critical Design Review (CDR) of the air launched version, and following Government approval of the CDR, will execute a flight test series of the air launched LRASM-A version. This SOW covers only the activity to be completed in Phase 2.

2.0 Supplies and Services

The Contractor shall furnish the necessary management, personnel, labor, services, documentation, materials, equipment, tools, facilities, and support services required to perform the tasks necessary to build, test, integrate, and demonstrate associated components for the development and demonstration of the LRASM-A prototype system in accordance with the provisions of this SOW and the contract.

Pre-CDR

Prior to CDR, the Contractor shall complete the detail design of the LRASM-A weapon system, and deliver the design except for specific COTS or MOTS items or subsystems not developed on this program as specified in Appendix A. The detail design drawings other than those specified in Appendix A shall be delivered in Contractor format on electronic media. The Contractor shall conduct demonstration and performance assessment of all subsystems through testing, simulation, or analogy as specified for each subsystem in this SOW. The Contractor shall conduct system operational effectiveness assessment relative to DARPA defined threats, scenarios, and environments. The Contractor shall develop and deliver design and transition support documentation as defined in this SOW. The Contractor shall execute long lead procurements as defined in Appendix B to support LRASM-A post-CDR test events. Any additional long-lead items to be procured prior to CDR must be approved by the DARPA program manager and COR via email concurrence to the Contractor’s POC.

The Contractor shall deliver the system detail design, 6DOF simulation source code, and all requested test and simulation data. The Contractor shall participate in Government Assessment Team (GAT) technical interchanges as necessary to support independent government assessment of LRASM-A capability.

Post-CDR

The Contractor shall complete the fabrication, integration, flight test qualification, and flight demonstration of no less than two LRASM-A weapons as specified in this SOW. Simulation, Hardware-in-the Loop (HWIL) testing, and captive carry testing shall be executed to verify system integration, provide risk reduction to flight test events, and conduct data collection for extrapolation to broader mission requirements. Operational effectiveness estimates will be updated based on test results. The Contractor shall develop and deliver design documentation as defined in this SOW. The Contractor shall procure, manufacture, assemble, and test the subsystems and test articles required to complete the flight tests.

The Contractor shall deliver the system as built detail design, interfaces, source code, and all test and simulation data. The Contractor shall participate in GAT technical interchanges as necessary to support independent government assessment of LRASM-A capability.

3.0 Detailed description of supplies and services

3.1 *Pre-CDR*

3.1.1 *Flight Vehicle*

Prior to CDR, the Contractor shall perform the necessary activities to complete the design of the flight vehicles, to include the following tasks:

3.1.1.1 *Propulsion*

The Contractor shall complete the detail design of the propulsion subsystem. The Contractor shall assess the performance of the propulsion subsystem and provide the analysis report electronically in mutually agreeable format.

DARPA and the Contractor agree to use the alternator as is from JASSM ER design for LRASM-A.

The contractor shall complete a detail design of the fuel system modifications that will be required to provide space for the RF sensor (RFS).

The Contractor shall develop any long lead tooling required for the manufacture of the propulsion and fuel systems. The Contractor shall order long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.2 *Payload*

The Contractor shall complete the detail design of the tactical warhead and fuze, and of the inert configuration to be used for Phase 2 flight tests. The Contractor shall develop any long lead tooling required for the manufacture of the inert warhead. The Contractor shall order long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.3 *Airframe*

The Contractor shall complete the detail design of the airframe. The Contractor shall assess the performance of the airframe through scaled wind tunnel testing and dynamic structural analysis and testing. All analysis reports and test reports along with requested test data, shall be provided electronically in Contractor format.

Requirements for weight and balance limits as well as test unique equipment such as telemetry and flight termination subsystems shall be accommodated in the design.

The Contractor shall develop any long lead tooling required for the manufacture of the airframe. The Contractor shall order the long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.4 *Guidance, Navigation, and Control*

(b)(3):22 USC §2778(e) Sec 38(e)

(b)(3):22 USC §2778(e) Sec 38(e)

3.1.1.5 Airborne Test Equipment

The Contractor shall complete the detail design of the Telemetry System (TMS). The Contractor shall assess and test the performance of the TMS as necessary to complete flight and range qualification.

The Contractor shall provide detailed technical information on the JASSM-ER Flight Termination System (FTS) and support the range safety approval process at Point Mugu.

The Contractor shall develop any long lead tooling required for the manufacture of the TMS. The Contractor shall order the long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.2 Systems Engineering

The Contractor shall refine and maintain system requirements, including traceability to component specifications, in a DOORS database and requirements verification matrix. The Contractor shall finalize the CONOPS. The Contractor shall develop and fully implement tactics to maximize mission effectiveness, including autonomous dynamic routing, threat avoidance, altitude control, threat response, defensive features, and terminal weaponeering.

The Contractor shall support DARPA and the USN in the process of defining and designing the system protection requirements for LRASM-A. The design activity will be dependent on the definition derived with DARPA and USN. To the extent that the design requirements are defined in the first 3 months of the contract and they are non-intrusive changes to items already being designed

or modified they will be incorporated. Extensive changes or changes requested after the system design is underway may require scope changes to the contract.

The Contractor shall complete the detail design of the integrated system and present the design at a CDR. The Contractor shall develop and deliver weapon external ICDs and internal subsystem ICDs to at least WBS level three. The Contractor shall demonstrate and assess the performance of the integrated system by system level multispectral signature modeling, end-to-end closed-loop 6-DOF simulation, integrated HWIL simulation, RCS pole model measurement, and captive carry testing of the avionics suite. All requested test data and analysis reports shall be provided electronically in Contractor format. The Contractor shall develop and deliver a fully populated aerodynamic model in a 6-DOF simulation, and shall provide updated range and performance assessments. The simulation source code shall be provided electronically in Contractor format.

The Contractor shall develop a HWIL simulation. The HWIL shall simulate external interfaces where practical and record hardware and software response from inserted subsystems or subsystem simulators. All requested test data and analysis reports shall be provided electronically in Contractor format.

The Contractor shall deliver a Critical Design Report consisting of the Critical Design Review presentation and the detail design drawing package. The Contractor shall deliver updates to the System Specification, Concept of Operations (CONOPS), and Operational Effectiveness Report (OER). The OER shall use the reliability predictions from Phase 1 as no reliability predictions are part of Phase 2 activity.

3.1.3 Systems Test and Evaluation

The Contractor shall perform the necessary activities to conduct system testing, to include the following tasks:

The Contractor shall execute scaled wind tunnel testing of the system. The Contractor shall provide a wind tunnel test plan, all requested test data, and a post-test report electronically in Contractor format.

The Contractor shall develop a captive carry capability for the missile avionics suite. The captive carry unit shall include representative prototypes of all GNC hardware and software. Captive carry testing shall be completed over representative missile trajectories in operationally representative environments, including cooperative military targets and targets of opportunity to the extent possible within flight safety allowances. Prior to CDR, the Contractor shall conduct at least one captive carry test that demonstrates the integrated avionics suite operation. The Contractor shall provide a captive carry test plan, all requested test data, and post-test report for each captive carry series electronically in Contractor format.

The Contractors shall conduct a RCS pole model test of the entire missile body with all tactical external features included.

The Contractor shall deliver an updated Test and Evaluation Master Plan (TEMP). The TEMP shall include summary of all testing completed to date, preliminary test planning for all post-CDR events, as well as anticipated certification testing required in EMD to achieve IOC.

3.2 *Post-CDR*

3.2.1 *Flight Vehicle*

The Contractor shall perform the necessary activities to complete and manufacture flight vehicles, to include the following tasks:

3.2.1.1 *Propulsion*

The Contractor shall fabricate and test any tooling required for the manufacture of the propulsion system. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an Acceptance Test Procedure (ATP) approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.2 *Payload*

The Contractor shall fabricate and test any tooling required for the manufacture of the inert warhead. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.3 *Airframe*

The Contractor shall fabricate and test any tooling required for the manufacture of the airframe. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.4 *Guidance, Navigation, and Control (GNC)*

(b)(3)22 USC §2778(e) Sec 38(e)

3.2.1.5 *Airborne Test Equipment*

The Contractor shall fabricate and test any tooling required for the manufacture of the TMS and FTS. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.6 Integration, Assembly, Test and Checkout

The Contractor shall integrate all subsystems and components into the flight vehicles. The Contractor shall complete Pre-Flight Certification Testing (PFCT) of each flight vehicle. All test data and PFCT reports shall be provided electronically in Contractor format.

3.2.2 Range Safety Coordination

The Contractor shall develop the mission plan for each flight test and coordinate the plan with the Range Safety Officer (RSO) at Point Mugu.

3.2.3 Systems Engineering

The Contractor shall complete the verification matrix of requirements. The Contractor shall maintain the specification tree, requirements database, and verification matrix.

The Contractor shall conduct end-to-end 6-DOF Monte-Carlo simulation and performance predictions at least four weeks prior to each flight test event and present the data at the Test Readiness Review (TRR) for each event. The Contractor shall compile mission success statistics and conduct failure analysis of identified failure modes. All data and test reports shall be provided electronically in Contractor format.

The Contractor shall utilize the HWIL facility to demonstrate system integration, resolve integration issues, demonstrate end-to-end mission simulation prior to flight test events, and evaluate system performance against the system specification.

The contractor shall support Systems Integration Lab (SIL) testing at the Boeing B-1 SIL prior to each flight test (unless there are no software changes).

The Contractor shall conduct captive carry tests of a fully integrated avionics suite to demonstrate and assess system performance, and to collect data against representative targets to verify and improve the end-to-end 6-DOF simulation and subsystem performance.

The Contractor shall conduct comparative analysis after each test event using the 6-DOF monte carlo simulation and test event telemetry. Any significant deviation will be assessed for cause and performance implications. A Failure Review Board (FRB) shall be convened to determine root cause and corrective action for any significant deviation from expected performance. Corrective actions and system refinement for mission critical items will be implemented prior to subsequent test events requiring that system attribute. The comparative analysis and FRB status shall be documented in the test report. The GAT and DARPA will participate in the FRB process. All data and test reports shall be provided electronically in Contractor format.

Following the final demonstration event, the Contractor shall support final system effectiveness assessments by the GAT. The Contractor shall deliver updates to the System Specification.

The Contractor shall deliver any updates to the detail design drawings delivered prior to CDR. The Contractor shall deliver the final versions of the missile OFP and GNC source code.

3.2.4 Systems Test and Evaluation

The contractor will conduct two flight tests in Phase2 that will incrementally demonstrate the missile's capability to launch from a B1-B, navigate to the target area, find the target, and defeat the target. Both flights will be conducted at the Point Mugu Sea Range (PMSR).

The Contractor shall execute a free flight transition test (FFTT) demonstrating the ability of the weapon to transition from captive carriage on the B1-B to controlled free flight with engine running.

Secondary objectives of the FFTT shall include target acquisition and track, receipt of in flight target updates (IFTUs) using the WDL, autonomous ingress to the target (as permitted by the range), terminal guidance to the target, and transmission of bomb hit indication (BHI) information over the WDL. The test plan shall be provided to DARPA in Contractor format for approval, and the test report shall be delivered to the GAT electronically in Contractor format.

The Contractor shall execute a final end-to-end integrated flight demonstration (IFD) of LRASM-A system capabilities. Primary objectives of the IFD shall include target acquisition and track, receipt of IFTUs using the WDL, autonomous ingress to the target (as permitted by the range), terminal guidance to the target, and transmission of BHI information over the WDL, followed by target impact. The test plan shall be provided to DARPA in Contractor format for approval, and the test report shall be delivered electronically in Contractor format.

The Contractor shall conduct four Missile Avionics Simulators (MAS) flight tests events to reduce risk for the sensor suite and avionics and rehearse the FFTT and IFD. The last two MAS flight test events will be conducted at PMSR and will include flights against the same targets that will be included in the IFD.

The Contractor shall electronically transfer to the GAT the decrypted and decommutated telemetry data from each flight test NLT 5 working days after the Contractor receives the tapes in Orlando.

3.2.5 Auxiliary Equipment

The Contractor shall fabricate and test any auxiliary equipment required for system fabrication, integration, PHST, and flight test. The Contractor shall procure, fabricate, and test items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

4.0 Period of Performance

The period of performance for Phase 2 shall be 26 months.

5.0 Program Management

5.1 Program Management

The Contractor shall provide the managerial oversight and direction for the program. This will include planning, financial reporting, security, personnel, subcontract management and administration, procurement, production management, product assurance (quality), and technical direction. The Contractor shall manage all subcontracts.

The Contractor shall deliver a level four Work Breakdown Structure (WBS) and Integrated Master Schedule (IMS). The Contractor shall deliver an update to the Transition Plan.

5.2 Master Schedule and Reports

The Contractor shall appoint a Program Manager to provide overall program direction with authority for technical, personnel, and all other resource allocations. The Contractor shall deliver a master plan and IMS. The Contractor shall provide monthly reports identifying any tasks that are behind schedule and reporting expenditures by WBS.

5.3 Technical Reviews

The Contractor shall conduct at least three In-Process Reviews (IPR) (approximately quarterly) and a Critical Design Review (CDR) at its Orlando facilities. IPRs will be no more than two day events covering recent and pending Phase 2 test events and review of the design status. Test Readiness Reviews (TRR) will be one day events at the Contractor facilities for all test events defined in the TEMP (teleconference will be made available for unclassified portions if requested).

The CDR shall cover the following items:

- a) Program Overview and CONOPs review
- b) Requirements, interfaces, and TPMs
- c) Requirements flowdown and allocation
- d) System detail design review
- e) System simulation results
- f) Developmental test results
- g) Operational effectiveness assessment
- h) Safety
- i) Hardware, software, and support equipment
- j) Risk/opportunity management
- k) Phase 2 schedule review

The Contractor shall conduct TRRs for the test activities defined in this SOW at its Orlando facilities.

The TRRs shall cover the following items:

- a) Test overview - Include test objective/purpose, description, time, and location
- b) Test team - Identify test conductor and support team
- c) Test pass/fail criteria
- d) Test matrix and/or test schedule
- e) Test set-up/configuration
- f) Test predictions
- g) Identification of first time events
- h) Instrumentation
- i) Hardware pedigree
- j) Testing history
- k) Software pedigree
- l) Support equipment and spares
- m) Test procedures
- n) Safety issues/concerns
- o) Facilities
- p) Open items list (to include open action items from previous reviews)
- q) Risk assessment
- r) Action items, including identification of those actions items which must be completed prior to test commencement

5.4 Methods of Communication

The Contractor shall participate in weekly telecons with DARPA and the GAT, maintain the unclassified SharePoint site, utilize public key infrastructure encryption for unclassified FOUO email, and maintain the encrypted classified data links to DARPA and JHU/APL.

6.0 Safety

The Contractor shall prepare the source data and develop the application for Interim Hazard Classifications for any hardware containing explosives or fuels for shipping authority. The Contractor shall deliver updates to the System Safety Hazard Assessment (SSHA) as required.

7.0 Requirements for the DARPA GFE RFS and RFS Contractor

7.1 RFS GFE Delivery Dates

The RFS will be provided as GFE. The RFS will be developed by DARPA under a direct contract to DARPA's RFS Contractor (DRC). The Contractor shall assist DARPA with technical monitoring of the DRC. **Error! Reference source not found.** establishes the GFE need dates to meet the LRASM-A schedule. Any delay in the deliverables may result in a cost and schedule impact to the Contractor. Table 2 delineates the specification and interfaces the RFS GFE is required to meet as part of the overall LRASM-A system. To the extent that the RFS system does not meet the specification, then it may have a flowdown effect on the LRASM capability. Additional specification and interface requirements are listed in classified Appendix C. There are some requirements identified as TBD in the documents that the Contractor and DRC have to define during the first 4 months after contract award (see Table 1, Item 4). It is anticipated that the Contractor and the DRC will need to meet periodically as defined in Table 1, Items 2, 3, 4, 5, 6, and 13 to accomplish the task of defining the TBDs and verifying ICD accuracy.

Table 1. RFS Delivery Schedule

Item	Date	Milestone	Responsibility and/or Objective(s)
1	2 weeks ARO	Kickoff /specification meeting at RFS supplier	DARPA
2	4 months ARO	Technical meeting	DARPA
3	6 months ARO	Technical meeting	DARPA
4	2.5 months ARO	Technical meeting /TBDs defined in specification and ICDs	Contractor/DARPA
5	8 months ARO	Technical meeting	DARPA
6	10 months ARO	Technical meeting	DARPA
7	3 months ARO first update. Incremental thereafter when updates occur. Final with RFS CDR material delivery (Item 16)	Updated RFS simulation code	DARPA
8	9 months ARO	Deliver RFS HIL&MAS prototype and HIL integration support	DARPA
9	9 months ARO	Contractor provide MAS pod to DRC	Contractor
10	11 months ARO	Install and calibrate aperture in MAS	DARPA

Table 1. RFS Delivery Schedule

Item	Date	Milestone	Responsibility and/or Objective(s)
		pod	
11	12 months ARO	MAS integration	Contractor/DARPA
12	13 Months ARO	MAS flight event	Contractor/DARPA
13	10 months ARO	Technical meeting	DARPA
14	13 months ARO	Fit check model delivered	DARPA
15	14 months ARO	Support aperture calibration test	DARPA
16	14 months ARO	RFS CDR materials delivered	DARPA
17	15 months ARO	MAS flight event	Contractor/DARPA
18	1 month after CDR	1st RFS Delivery	Orlando, FL
19	2 months after CDR	2nd RFS Delivery	Orlando, FL
20	3 months after CDR	3rd RFS Delivery	Orlando, FL
21	3 months after CDR	MAS Flight Event	TBD
22	5 months after CDR	MAS Flight Event	Pt Mugu
23	8 months after CDR	MAS Flight Event	PT Mugu
24	6 months after CDR	FFF Event	Pt Mugu
25	10 months after CDR	IFD Event	Pt Mugu

Table 2. RFS Specification and Interface Requirements

Document Number	Title
797219021	Performance Specification, RF Sensor (RFS)
797219022	Mechanical ICD
797219023	RFS Communications Interface Control Document
797219024	RFS Electrical Interface Control Document

7.2 Phase 2 Additional Required Deliverables Description

7.2.1 System Simulation Support

The DRC shall provide updates to the RFS simulation source code, models and/or RFS algorithm performance emulators provided from BAE Systems in Phase 1 to support the Contractor's system level simulation analysis (need dates as shown in Table 1, Item 7).

7.2.2 Aperture Development - AUR

The DRC shall support Lockheed Martin in the development of the RFS aperture by reviewing/commenting on the Contractor's All Up Round (AUR) aperture design and placement and supporting the maintenance of the interface control documents.

7.2.3 Aperture Development - MAS

The DRC shall support the Contractor in the development of the Missile Avionics Simulator (MAS) aperture by selecting, procuring, installing, and calibrating the COTS aperture on the MAS test bed IAW Table 1, Item 9/10.

7.2.4 Hardware in the Loop (HIL)

The DRC shall provide a prototype RFS for use in the Contractor's HIL in Orlando, FL IAW Table 1, Item 8. The prototype RFS shall provide representative functionality of the system, but is not required to meet the form, fit, and environmental requirements. The DRC shall provide 3 one week support activities to the Contractor in Orlando, FL to support the integration of the Contractor's HIL. The same unit shall be usable in the MAS (See below).

The DRC shall also provide 3 one week support activities to the Contractor in Orlando, FL to support the integration and testing of each delivered RFS on the Contractor's HIL. The 3 one week support activities shall be commensurate with each of the 3 RFS deliveries (Table 1 items 18, 19, and 20).

7.2.5 Missile Avionics Simulator (MAS)

The DRC shall support the initial MAS integration in Orlando, FL. The DRC shall be in place with knowledgeable technicians and engineers to support the integration activity for at least 3 weeks (See Table 1, Item 11). The DRC shall support all five MAS operations identified in Table 1 by reviewing the test plans for each mission and reviewing the data collected. One test flight is expected prior to CDR. A report detailing the RFS data analysis and results from each MAS test is due NLT 3 weeks

after the mission. The estimated schedule for the MAS flight events is shown in Table 1, Items 11, 12, 21, 22 and 23.

7.2.6 Aperture Development Support

The DRC shall support the Contractor in the calibration of the aperture if required. The DRC shall review test plans and test set-up to ensure calibration is of the type and accuracy required by DRC. The testing will be conducted in Orlando, FL IAW Table 1, Item 15.

7.2.7 Fit Model

The DRC shall provide form and fit mass simulator for use in fit check and assembly test at the Contractor's facility in Troy, AL as defined in Table 1, Item 14. The DRC shall provide updated form and fit mass simulator for use in fit check and assembly test at Troy, AL if changed from the pre-CDR unit.

7.2.8 CDR

The DRC shall support the LRASM-A system level CDR with required documentation and viewgraphs of the design and analysis of the RFS. The data shall be provided in accordance with Table 1, Item 16.

7.2.9 Flight Test Support

The DRC shall support the two flight operations by reviewing the test plan for each mission and reviewing the data collected. A report detailing the RFS data analysis and results is due NLT 3 weeks after each mission. The estimated schedule for the flight test is shown in Table 1, Items 24 and 25.

OTHER REPORTS AND DELIVERABLES

Title	Draft	Final	Update
Contract Work Breakdown Structure for Phases 2a and 2b		30 days ACA	
Master Plan and Integrated Master Schedule for Phase 2		30 days ACA	Monthly
CONOPS			3 weeks prior to CDR
Test and Evaluation Master Plan			4 weeks prior to CDR
System Safety Hazard Assessment			4 weeks prior to CDR
Interim Hazard Classification Data			4 weeks prior to CDR
LRASM-A Air-Launched System Specification			4 weeks prior to CDR and 4 weeks prior to IFD

LRASM-A detail design drawings, interface specifications, and Critical Design Report	4 weeks prior to CDR	2 weeks after CDR	With final report
Operational Effectiveness Analysis Report			4 weeks prior to CDR
Test Plan		60 days prior to each test event	
Test Report		30 days after each test event	
OFP and GNC software	4 weeks prior to CDR	With final report	
Final Report		30 days after the IFD	

Appendix A

This Appendix defines the drawings that will not be provided to the Program Office (DARPA) as part of the design drawing package. There are three categories of drawings to be excluded from the drawing package:

- A. Drawings of commercial parts such as screws, washers, nuts, adhesives, glues, etc. will be referenced in the parts list of the design drawing but no detail specification or drawing of these items shall be provided.

B. (b)(3):22 USC §2778(e) Sec 38(e)



- C. Commercial Off the Shelf (COTS) subsystems such as the Altimeter, IMU, Weapon Data Link components not developed for LRASM-A, telemetry system components, and flight termination components.

Appendix B

This appendix lists all the items to be purchased prior to CDR in order to support the testing in Phase 2. The list is divided into two pieces. The lists are in the form of a embedded Excel® files for ease of use: File JASSM Common.xlsx. Sheet 1 contains the list of JASSM common parts that will be acquired in a combined purchase with JASSM procurement. Sheet 2 is a list of parts that are not specifically quantified but will be before CDR and will need to be purchased in order to meet Phase 2 test schedule.

(b)(3):22 USC §2778(e)
Sec 38(e)

Requirements to be provided as Government Furnished and Government Furnished Property Matters:

1. Rent Free Use:

Upon request, DARPA will work to obtain for the contractor, authorized rent-free use of Government property accountable to the U.S. Air Force JASSM Production contracts including, but not limited to, the following for the period of this contract:

FA8682-10-C-0016
FA8682-07-C-0117
FA8682-04-C-0060
FO8682-96-C-0002

In the event that an authorization request is denied by the “owning” Contracting Officer(s), DARPA agrees to immediately seek a suitable alternative and the Contracting Officer shall consider the Contractor’s timely written request for an equitable adjustment to the contract in accordance with 52.245-1 Government Property paragraphs (d)(2)(i) or (d)(3)(ii).

2. Government Furnished Property:

The following are required as Government Furnished as specified:

Description	Quantity	Need Date	Ship to Location
ARHS System	1	1-Jul-2011	LMMFC-Orlando
MAS Pod Antennas	1 set	1-Aug-2011	BAE
ARHS System	1	1-Feb-2012	LMMFC-Orlando
ARHS System	1	1-Mar-2012	LMMFC-Orlando
ARHS System	1	1-Apr-2012	LMMFC-Orlando
AN/CYZ-10 Data Transfer Device	1	1-Mar 2011	LMMFC-Orlando
AN/CYZ-10 Data Transfer Device	1	1-Sep-2011	LMMFC-Orlando
Ship Motion Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando
Wave Motion Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando
WDL Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando

3. Test Range and Target Requirements:

- a. The Government shall furnish the Test Range(s) required for contract performance. Included in the Government's responsibilities are:
 - i. coordination of all test range availability and access;
 - ii. test range support and operations to include power and space for contractor test equipment for test performance; and
 - iii. all targets and range recording equipment and operation.

All aspects of testing on Test Range facilities shall be considered Government furnished except for the test article (e.g. weapon) that the contractor provides, and contractor personnel to observe the testing and to operate the contractor's test equipment.

- b. The specific test range requirements currently identified to be furnished by the Government are as follows:

Event Description	Quantity	Range/Site	Location
1. Free Flight Transition Test	1	Point Mugu Sea Range (PMSR)	Point Mugu, CA
2. Integrated Flight Demonstration	1	PMSR	Point Mugu, CA
Event Descriptions 1 and 2 Comments: Phase 2 test. The test set-up shall represent a realistic threat environment to the LRASM A. Representative physical targets and emitters are required. Range availability shall support the contractor's Program Master Schedule. The Government shall provide a USAF conducted SIL test at the launch aircraft SIL to verify proper communication with the LRASM A in support of this test event. Also required to be furnished by the Government is a launch aircraft and all support crew to conduct a flight test mission to include the storage and loading of the LRASM A at the Government selected airbase of operation. LM ground support personnel will require access to the missile before and after loading to check FTS and TM operation.			
3. Captive Carriage tests using the Missile Avionics Simulator (MAS)	TBD	TBD	US east coast for initial testing and PMSR.
Event Description 3 Comments: The Government shall arrange for the US Navy to allow the Contractor to use ships underway at sea as targets of opportunity for image and ARHS data collection. MAS testing at PMSR will require representative physical targets and emitters. Range availability shall support the contractors Program Master Schedule which currently reflects the notional schedule for this testing. The specific dates will be defined by the contractor as the program progresses.			

4. Encryption Keys:

The Government shall furnish the encryption keys as and when required by the contractor for use in the GPS receiver, WDL transceivers, and telemetry transmitter.

5. Threat Data Access:

The Government shall ensure that the contractor is granted continued access to threat data bases as required during the period of this contract.

6. Hazard Classification Support:

The Government shall process contractor hazard classification requests as required.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1 CONTRACT ID CODE PAGE OF PAGES

1 2

2 AMENDMENT/MODIFICATION NO. P00011	3 EFFECTIVE DATE 14-Jan-2010	4 REQUISITION-PURCHASE REQ. NO.	5 PROJECT NO. (if applicable)
6 ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N FAIRFAX DR ARLINGTON VA 22203	CODE HR0011	7 ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5500 SAND LAKE RD MP 49 ORLANDO FL 32819-8907	CODE S1005A

8 NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5620 W SAND LAKE RD MP125 ORLANDO FL 32819-8907	9A AMENDMENT OF SOLICITATION NO. 9B DATED (SEE ITEM 11) X 10A MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096 10B DATED (SEE ITEM 13) X 29-Jun-2009
CODE 34939 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 Offer ☐ is extended, ☐ is not extended.

Offer 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)

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.

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).

X C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF
FAR 43.103(a).

D OTHER (Specify type of modification and authority)

E IMPORTANT Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCI section headings, including solicitation/contract subject matter
where feasible)
Modification Control Number jyeung11314

(See Page 2)

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) (b)(4)	16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)
15B DATE SIGNED 2011 JAN 12	16B DATE SIGNED 1/14/11
15C SIGNATURE OF SIGNER (b)(4)	16C SIGNATURE OF CONTRACTING OFFICER (b)(6)

APPROVED BY OIRM 11 84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to replace the Contract Security Classification Specification, DD Form 254, currently included in the Contract as Attachment No. 5 with a revised DD Form 254 dated August 13, 2010. Accordingly, make the following revision:

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

Revise the description of Attachment No. 5 to read as follows:

Attachment No. 5 - Revised Contract Security Classification Specification, DD Form 254, dated August 13, 2010 (5 pages)

A copy of the revised DD Form 254 dated August 13, 2010 is incorporated into the Contract by this modification.

~ End ~

(b)(7)(E),(b)(7)(F)

(b)(7)(E),(b)(7)(F)

(b)(7)(E),(b)(7)(F)

(b)(7)(E),(b)(7)(F)

(b)(7)(E),(b)(7)(F)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE		PAGE OF PAGES 1 2	
2 AMENDMENT/MODIFICATION NO P00012		3 EFFECTIVE DATE 19-Jan-2011		4 REQUISITION/PURCHASE REQ NO		5 PROJECT NO (If applicable)	
6 ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR. ARLINGTON VA 22203		CODE HR0011		7 ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer 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)							
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.							
X 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).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> 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 Control Number: jyeung11339 <div style="text-align: center;">(See Page 2)</div>							
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)			
				(b)(6)			
				TEL: (b)(6)		EMAIL: (b)(6)	
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				(b)(6)		19-Jan-2011	
				(Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to administratively correct the effective date of the Modification P00011 from 14 Jan 2010 to 14 Jan 2011 without any impact on the negotiated cost and fee and schedule of the Contract. Accordingly, make the following revision:

In Block 3 of the Standard Form (SF) 30 for Modification P00011:

Delete: 14 Jan 2010

Replace with: 14 Jan 2011

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
				1		5	
2. AMENDMENT/MODIFICATION NO. P00013		3. EFFECTIVE DATE 03-Feb-2011		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (if applicable)	
6. ISSUED BY DARPA CMC ATTN: (b)(6) 3701 N. FAY AVENUE ARLINGTON VA 22203		CODE HR0011		7. ADMINISTERED BY (if other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5800 SAND LAKE RD MP 49 ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5800 W SAND LAKE RD MP 125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.							
Offer 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)							
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.							
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).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(a) and FAR 52.245-1 (Dev) Government Property							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jyeung11391							

(See Page 2)

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) (b)(4)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)	
15C. DATE SIGNED 2011 FEB 03		16B. DATE SIGNED (b)(6)	
		16C. DATE SIGNED 2/3/11	
		BY (Signature of Contracting Officer)	

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to revise Section C-2 in order to clarify the distribution and marking requirements for the reports and deliverables to be provided by the Contractor under the Contract. The modification also accepts the transfer of cognizance and accountability of four (4) Inert JASSM Warheads from the Air Force Contract No. FA8682-04-D-0306, 0009 to the DARPA Contract No. HR0011-09-C-0096 in support of the LR-ASM program. Accordingly, make the following revisions:

SECTION C - DESCRIPTIONS AND SPECIFICATIONS

Under Section C-2 - Reports and Other Deliverable:

Delete: subparagraphs (1), (2), (3), and (4) under paragraph (d)

Add: new paragraphs (e), (f), (g), and (h)

Section C-2 is therefore revised to read as follows:

C-2 Reports and Other Deliverables

(a) The Contractor shall submit the following reports and other deliverables in accordance with the delivery schedule set forth in Section F. Reports and other deliverables shall be submitted in writing, as defined in FAR 2.101, or as specified below:

(1) R&D STATUS REPORT* (CLINs 0001 and 0002)

This brief narrative shall contain the following:

- (i) For first report only: the date work actually started.
- (ii) Description of progress during the reporting period, supported by reasons for any change in approach reported previously
- (iii) Planned activities and milestones for the next reporting period.
- (iv) Description of any major items of experimental or special equipment purchased or constructed during the reporting period.
- (v) Notification of any changes in key personnel associated with the contract during the reporting period.
- (vi) Summary of substantive information derived from noteworthy trips, meetings, and special conferences held in connection with the contract during the reporting period.
- (vii) Summary of all problems or areas of concern.
- (viii) Related accomplishments since last report.
- (ix) Fiscal status, to include reporting of summary level financial data in the following format:

**NOTE: In accordance with DFARS 252.227-7013(e)(iii), the Contractor (Prime and Subcontractor) shall notify the Government, via the Monthly Status Report, of any data deliverables which will be furnished to the Government with less than Unlimited Rights that are in addition to those stipulated in Attachment No. 3 to the Contract.*

**R&D STATUS REPORT
PROGRAM FINANCIAL STATUS**

Work Breakdown		Cumulative to Date			At Completion	
Structure or Task Element	Planned Expend	Actual Expend	% Budget Compl	At Compl	Latest Revised Estimate	Remarks
Subtotal: _____						
Management Reserve: _____						
Or Unallocated Resources: _____						
TOTAL: _____						

Note: Budget at completion changes only with the amount of any scope changes. (Not affected by underrun or overrun)

Based on currently authorized work:

Is current funding sufficient for the current fiscal year (FY)? (Explain in narrative if "NO")

YES NO

What is the next FY funding requirement at current anticipated levels?

\$ _____

Have you included in the report narrative any explanation of the above data and are they cross-referenced?

YES NO

(2) FINAL TECHNICAL REPORT FOR PHASE I (CLIN 0001)

This report shall document the results of the complete effort and should be delivered at the completion of Phase I. Title pages shall include a disclaimer worded substantially as follows:

"The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressly or implied, of the Defense Advanced Research Projects Agency or the U.S. Government."

The Final Technical Report summary shall include:

- Task Objectives
- Technical Problems
- General Methodology (i.e., literature review, laboratory experiments, surveys, etc.)
- Technical Results
- Important Findings and Conclusions
- Significant Hardware Development
- Special Comments
- Implications for Further Research

- Standard Form 298, August 1998

(3) FINAL TECHNICAL REPORT FOR PHASE 2 (CLIN 0002)

This report shall document the results of the complete effort and should be delivered at the completion of Phase 2. Title pages shall include a disclaimer worded substantially as follows:

"The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressly or implied, of the Defense Advanced Research Projects Agency or the U.S. Government."

The Final Technical Report summary shall include:

- Task Objectives
- Technical Problems
- General Methodology (i.e., literature review, laboratory experiments, surveys, etc.)
- Technical Results
- Important Findings and Conclusions
- Significant Hardware Development
- Special Comments
- Implications for Further Research
- Standard Form 298, August 1998

(4) ADDITIONAL MISCELLANEOUS DATA DELIVERABLES (CLINs 0001 and 0002)

The Contractor shall also deliver those items listed in the Attachment Nos. 1 and 6. The Contractor shall adhere to the schedule, as applicable, contained in the Statements of Work. Presentation materials (hard and soft copy) for all briefings given to the Government shall be provided in the Contractor's format.

(b) Reports delivered by the Contractor in the performance of the Contract shall be considered "Technical Data" as defined in Section I Contract clauses entitled "Rights in Technical Data - Noncommercial Items" and "Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation."

(c) Bulky Reports shall be mailed by other than first-class mail unless the urgency of submission requires use of first-class mail. In this situation, one copy shall be mailed first-class and the remaining copies forwarded by less than first-class.

(d) All papers and articles published as a result of DARPA sponsored research shall include a statement reflecting the sponsorship. In addition, a bibliography of the titles and authors of all such papers are to be included in the Final Technical Report

(e) The cover or title page of each of the above reports or publications shall have the following citation:

Sponsored by
Defense Advanced Research Projects Agency
Tactical Technology Office (TTO)
Program: Long Range Anti-Ship Missile (LR-ASM) Demonstration Program
Issued by DARPA-CMO under Contract No. HR0011-09-C-0096

(f) The title page shall include a disclaimer worded substantially as follows:

"The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressly or implied, of the Defense Advanced Research Projects Agency or the U.S. Government."

(g) The Final Technical Report must (i) be prepared in accordance with American National Standards Institute (ANSI) Standard Z39.18; (ii) include a Standard Form 298, August 1998; and (iii) be marked with an appropriate Distribution Statement.

(h) Distribution Statement E applies. "Distribution authorized to DoD Components only due to the inclusion of proprietary information and to prevent Premature Dissemination of potentially critical technological information. Other requests for this document shall be referred to DARPA's Public Release Office via email at prc@darpa.mil."

Note to Contractor: In accordance with the applicable Data Rights clauses(s), all proprietary information within the data deliverables shall be clearly identified/marked as such for each such occurrence (use of footnotes, or similar forms of reference, for purposes of such identification is encouraged).

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

Add the following four (4) Inert JASSM Warheads as Government Furnished Equipment/Property (GFE/GFP) items to the table currently included under paragraph 2 of the Attachment No. 7 - Government Furnished Equipment/Property (GFE/GFP) List. A copy of the revised Attachment No. 7 is attached to this Modification P00013.

<u>Description</u>	<u>Quantity</u>	<u>Need Date</u>	<u>Ship to Location</u>
Inert JASSM Warhead (Serial No. 461)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 765)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 764)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 738)	1	3-Feb-2011	LMMFC-Orlando

Revised the description of Attachment No. 7 to read as follows:

Attachment No. 7 (revised) - Government Furnished Equipment/Property (GFE/GFP) List, dated February 3, 2011

~ End ~

Requirements to be provided as Government Furnished and Government Furnished Property Matters:

1. Rent Free Use:

Upon request, DARPA will work to obtain for the contractor, authorized rent-free use of Government property accountable to the U.S. Air Force JASSM Production contracts including, but not limited to, the following for the period of this contract:

FA8682-10-C-0016
FA8682-07-C-0117
FA8682-04-C-0060
FO8682-96-C-0002

In the event that an authorization request is denied by the “owning” Contracting Officer(s), DARPA agrees to immediately seek a suitable alternative and the Contracting Officer shall consider the Contractor’s timely written request for an equitable adjustment to the contract in accordance with 52.245-1 Government Property paragraphs (d)(2)(i) or (d)(3)(ii).

2. Government Furnished Property:

The following are required as Government Furnished as specified:

Description	Quantity	Need Date	Ship to Location
ARHS System	1	1-Jul-2011	LMMFC-Orlando
MAS Pod Antennas	1 set	1-Aug-2011	BAE
ARHS System	1	1-Feb-2012	LMMFC-Orlando
ARHS System	1	1-Mar-2012	LMMFC-Orlando
ARHS System	1	1-Apr-2012	LMMFC-Orlando
AN/CYZ-10 Data Transfer Device	1	1-Mar 2011	LMMFC-Orlando
AN/CYZ-10 Data Transfer Device	1	1-Sep-2011	LMMFC-Orlando
Ship Motion Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando
Wave Motion Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando
WDL Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando

Inert JASSM Warhead (Serial No. 461)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 765)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 764)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 738)	1	3-Feb-2011	LMMFC-Orlando

3. Test Range and Target Requirements:

- a. The Government shall furnish the Test Range(s) required for contract performance. Included in the Government's responsibilities are:
 - i. coordination of all test range availability and access;
 - ii. test range support and operations to include power and space for contractor test equipment for test performance; and
 - iii. all targets and range recording equipment and operation.

All aspects of testing on Test Range facilities shall be considered Government furnished except for the test article (e.g. weapon) that the contractor provides, and contractor personnel to observe the testing and to operate the contractor's test equipment.

- b. The specific test range requirements currently identified to be furnished by the Government are as follows:

Event Description	Quantity	Range/Site	Location
1. Free Flight Transition Test	1	Point Mugu Sea Range (PMSR)	Point Mugu, CA
2. Integrated Flight Demonstration	1	PMSR	Point Mugu, CA
Event Descriptions 1 and 2 Comments: Phase 2 test. The test set-up shall represent a realistic threat environment to the LRASM A. Representative physical targets and emitters are required. Range availability shall support the contractor's Program Master Schedule. The Government shall provide a USAF conducted SIL test at the launch aircraft SIL to verify proper communication with the LRASM A in support of this test event. Also required to be furnished by the Government is a launch aircraft and all support crew to conduct a flight test mission to include the storage and loading of the LRASM A at the Government selected airbase of operation. LM ground support personnel will require access to the missile before and after loading to check FTS and TM operation.			
3. Captive Carriage tests using the Missile Avionics Simulator (MAS)	TBD	TBD	US east coast for initial testing and PMSR.
Event Description 3 Comments: The Government shall arrange for the US Navy to allow the Contractor to use ships underway at sea as targets of opportunity for image and ARHS data collection. MAS testing at PMSR will require representative physical targets and emitters. Range availability shall support the contractors Program Master Schedule which currently reflects the notional schedule for this testing. The specific dates will be defined by the contractor as the program progresses.			

4. Encryption Keys:

The Government shall furnish the encryption keys as and when required by the contractor for use in the GPS receiver, WDL transceivers, and telemetry transmitter.

5. Threat Data Access:

The Government shall ensure that the contractor is granted continued access to threat data bases as required during the period of this contract.

6. Hazard Classification Support:

The Government shall process contractor hazard classification requests as required.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE	PAGE OF PAGES 1 3
2 AMENDMENT/MODIFICATION NO P00014		3 EFFECTIVE DATE 10-Feb-2011		4 REQUISITION/PURCHASE REQ NO	
5 PROJECT NO (If applicable)					
6 ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N FAIRFAX DR ARLINGTON VA 22203		CODE HR0011		7 ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907	
8 NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907		9A AMENDMENT OF SOLICITATION NO		9B DATED (SEE ITEM 11)	
		X 10A MOD OF CONTRACT/ORDER NO HR0011-09-C-0096		10B DATED (SEE ITEM 13)	
CODE 04939		FACILITY CODE		X 29-Jun-2009	
11 THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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)					
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.					
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)					
X C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(a)					
D OTHER (Specify type of modification and authority)					
E IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office					
14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jyeung11414					

(See Pages 2 and 3)

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.

(b)(4)		16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)	
DATE SIGNED 2011 FEB 10		16B NAME AND TITLE OF AMENDMENT (b)(6)	
		16C DATE SIGNED 2/10/11	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to authorize rent-free use of Government property, including production and assembly tooling and test equipment, accountable under the U.S. Air Force Joint Air-to-Surface Standoff Missile (JASSM) program contracts as currently listed under paragraph 1 of Attachment No. 7 – Government Furnished Equipment/Property (GFE/GFP) List. The modification also replaces the list of the Government Furnished Property currently listed under paragraph 2 of Attachment No. 7 with an updated list. The above changes are incorporated without a contract CPFF change or schedule change. Accordingly, make the following changes:

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

- Revise the description of Attachment No. 7 to read as follows:

Attachment No. 7 (revised) - Government Furnished Equipment/Property (GFE/GFP) List, dated February 10, 2011

ATTACHMENT NO. 7 - GOVERNMENT FURNISHED EQUIPMENT/PROPERTY (GFE/GFP) LIST

- Delete the existing Paragraph 1 in its entirety and replace it with the following new Paragraph 1:

1. Rent Free Use:

The Government hereby authorizes the Contractor to utilize the Government property, including production and assembly tooling and test equipment, accountable under the following Air Force Joint Air-to-Surface Standoff Missile (JASSM) program contracts, on a rent-free, non-interference use basis until the completion of the Contract:

FA8682-10-C-0016
FA8682-07-C-0117
FA8682-04-C-0060
FO8682-96-C-0002

This authorization is given, provided that:

- a) the use of the Government property is strictly limited to the support of the Contractor's technology demonstrations for the LR-ASM Program under the Contract;
 - b) the Government property may be modified or altered and shall not be used for any commercial programs. Modified or altered Government property will be returned to its unmodified/unaltered state prior to its return to the accountable contracts;
 - c) the Contractor is responsible for all transportation, tracking, and maintenance, and costs for the same pertaining to the authorized use described in this paragraph; and
 - d) the return of the Government property for the continued use in support of the respective Air Force contracts listed above in paragraph 1 upon completion of the Contract.
- Delete the existing Paragraph 2 in its entirety and replace it with the following new Paragraph 2:

2. Government Furnished Property:

The following are required as Government Furnished Property as specified:

Description	Quantity	Need Date	Ship to Location
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Jul-2011	LMMFC-Orlando
MAS Pod Antennas	1 set	1-Aug-2011	BAE
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Feb-2012	LMMFC-Orlando
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Mar-2012	LMMFC-Orlando
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Apr-2012	LMMFC-Orlando
AN/CYZ-10 Data Transfer Device	1	1-Mar-2011	LMMFC-Orlando
AN/CYZ-10 Data Transfer Device	1	1-Sep-2011	LMMFC-Orlando
Ship Motion Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando
Wave Motion Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando
WDL Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 461)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 765)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 764)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 738)	1	3-Feb-2011	LMMFC-Orlando

- Replace the existing Attachment No. 7 with a copy of the latest revised Attachment No. 7 - Government Furnished Equipment/Property (GFE/GFP) List, dated February 10, 2011, a copy of which is attached to this Modification P00014.

~ End ~

Requirements to be provided as Government Furnished and Government Furnished Property Matters:

1. Rent Free Use:

The Government hereby authorizes the Contractor to utilize the Government property, including production and assembly tooling and test equipment, accountable under the following Air Force Joint Air-to-Surface Standoff Missile (JASSM) program contracts, on a rent-free, non-interference use basis until the completion of the Contract:

FA8682-10-C-0016
FA8682-07-C-0117
FA8682-04-C-0060
FO8682-96-C-0002

This authorization is given, provided that:

- a) the use of the Government property is strictly limited to the support of the Contractor's technology demonstrations for the LR-ASM Program under the Contract;
- b) the Government property may be modified or altered and shall not be used for any commercial programs. Modified or altered Government property will be returned to its unmodified/unaltered state prior to its return to the accountable contracts;
- c) the Contractor is responsible for all transportation, tracking, and maintenance, and costs for the same pertaining to the authorized use described in this paragraph; and
- d) the return of the Government property for the continued use in support of the respective Air Force contracts listed above in paragraph 1 upon completion of the Contract.

2. Government Furnished Property:

The following are required as Government Furnished as specified:

Description	Quantity	Need Date	Ship to Location
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Jul-2011	LMMFC-Orlando
MAS Pod Antennas	1 set	1-Aug-2011	BAE
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Feb-2012	LMMFC-Orlando
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Mar-2012	LMMFC-Orlando
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Apr-2012	LMMFC-Orlando
AN/CYZ-10 Data Transfer Device	1	1-Mar 2011	LMMFC-Orlando
AN/CYZ-10 Data Transfer Device	1	1-Sep-2011	LMMFC-Orlando
Ship Motion Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando
Wave Motion Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando
WDL Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando

Description	Quantity	Need Date	Ship to Location
Inert JASSM Warhead (Serial No. 461)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 765)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 764)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 738)	1	3-Feb-2011	LMMFC-Orlando

3. Test Range and Target Requirements:

- a. The Government shall furnish the Test Range(s) required for contract performance. Included in the Government's responsibilities are:
 - i. coordination of all test range availability and access;
 - ii. test range support and operations to include power and space for contractor test equipment for test performance; and
 - iii. all targets and range recording equipment and operation.

All aspects of testing on Test Range facilities shall be considered Government furnished except for the test article (e.g. weapon) that the contractor provides, and contractor personnel to observe the testing and to operate the contractor's test equipment.

- b. The specific test range requirements currently identified to be furnished by the Government are as follows:

Event Description	Quantity	Range/Site	Location
1. Free Flight Transition Test	1	Point Mugu Sea Range (PMSR)	Point Mugu, CA
2. Integrated Flight Demonstration	1	PMSR	Point Mugu, CA
Event Descriptions 1 and 2 Comments: Phase 2 test. The test set-up shall represent a realistic threat environment to the LRASM A. Representative physical targets and emitters are required. Range availability shall support the contractor's Program Master Schedule. The Government shall provide a USAF conducted SIL test at the launch aircraft SIL to verify proper communication with the LRASM A in support of this test event. Also required to be furnished by the Government is a launch aircraft and all support crew to conduct a flight test mission to include the storage and loading of the LRASM A at the Government selected airbase of operation. LM ground support personnel will require access to the missile before and after loading to check FTS and TM operation.			
3. Captive Carriage tests using the Missile Avionics Simulator (MAS)	TBD	TBD	US east coast for initial testing and PMSR.
Event Description 3 Comments: The Government shall arrange for the US Navy to allow the Contractor to use ships underway at sea as targets of opportunity for image and RF Sensor data collection. MAS testing at PMSR will require representative physical targets and emitters. Range availability shall support the contractors Program Master Schedule which currently reflects the notional schedule for this testing. The specific dates will be defined by the contractor as the program progresses.			

4. Encryption Keys:

The Government shall furnish the encryption keys as and when required by the contractor for use in the GPS receiver, WDL transceivers, and telemetry transmitter.

5. Threat Data Access:

The Government shall ensure that the contractor is granted continued access to treat data bases as required during the period of this contract.

6. Hazard Classification Support:

The Government shall process contractor hazard classification requests as required.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1 CONTRACT ID CODE
PAGE OF PAGES
1 3

2. AMENDMENT/MODIFICATION NO P00015		3. EFFECTIVE DATE 24 Feb 2011		4. REQUISITION/PURCHASE REQ. NO Z907/03		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR. ARLINGTON VA 22203		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 4B ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907						9A. AMENDMENT OF SOLICITATION NO.	
						9B. DATED (SEE ITEM 11)	
						X 10A. MOD OF CONTRACT/ORDER NO. HR0011-09-C-0096	
CODE 04939						X 10B. DATED (SEE ITEM 13) 29-Jun-2009	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.							
Offer 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) See Schedule							
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							
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).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a)							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible) Modification Control Number jyeung11460							

(See Pages 2 and 3)

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) (b)(4)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)	
15C. DATE SIGNED 2011 FEB 24		16B. (b)(6) BY (Signature of Contracting Officer)	
		16C. DATE SIGNED 2/24/11	

APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to incorporate the final pricing of the engine procurement effort by increasing the cost plus fixed fee amount of CLIN 0002, Phase 2, by \$3,379,250.00. Contract Attachment No. 6, Statement of Work, dated November 11, 2010, previously incorporated into the Contract by P00010, remains unchanged and already contains the scope of work required for the engine procurement effort. The modification also provides an increment of funds of \$23,290,000 to partially fund the Contract and adds a new Section H-17 - Consent to Subcontract - to the Contract. Accordingly, make the following revisions:

SECTION A - SOLICITATION/CONTRACT FORM

- The Total Cost Plus Fixed Fee of the Contract is increased by \$3,379,250.00 from \$70,343,250.00 to \$73,722,500.00.

SECTION B - SUPPLIES OR SERVICES AND PRICES

- Delete the following remark section currently included under CLIN 0002:
 - * A CPFF amount for 3 JASSM ER configuration engines is not included in the CLIN 0002, LRASM A, Phase 2 negotiated CPFF. An additional CPFF amount for the engines will be separately proposed, negotiated and incorporated as part of CLIN 0002. Performance of the CLIN 0002 is based upon incorporation of the additional negotiated CPFF amount for the engines.
- Revise the amount of CLIN 0002 as follows:

(b)(4)

The total cost plus fixed fee of CLIN 0002 is increased by \$3,379,250.00 from \$60,357,197.00 to \$63,736,447.00.

- CLIN 0002 is revised to read as follows:

<u>ITEM NO.</u>	<u>SUPPLIES/SERVICES</u>	<u>ESTIMATED COST</u>	<u>FIXED FEE</u>	<u>TOTAL EST. COST PLUS FIXED FEE</u>
0002	LRASM A Phase 2 CPFF The Contractor shall perform Phase 2 of the Long Range Anti-Ship Missile (LR-ASM) Demonstration Program in accordance with Attachment No. 6 - Phase 2 Statement of Work and Section C-1 of the Contract. Technical data, reports, and other deliverables are not separately priced and shall be provided to the Government in accordance with Sections C, F, and Attachment No. 6 of the Contract. FOB: Destination	(b)(4)		\$63,736,447.00

- Add the following SubCLIN 000203:

<u>ITEM NO.</u>	<u>SUPPLIES/SERVICES</u>
000203	Funding for CLIN 0002 AO No. Z907/03 ACRN AD: \$23,290,000.00

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount of the Contract is increased by \$23,290,000.00 from \$37,831,053.00 to \$61,121,053.00.

SubCLIN 000203:

Funding on SubCLIN 000203 is initiated as follows:

ACRN: AD

CIN: 00000000000000000000000000000000

Acctng Data: 1711319 W3DJ 000 RA353 0 068342 2D 000000 02911000LAS0 068342 AA

Increase: \$23,290,000.00

Total: \$23,290,000.00

SECTION H - SPECIAL CONTRACT REQUIREMENTS

- Add the following new Section H-17 – Consent to Subcontract:

H-17 Consent to Subcontract

(a) Pursuant to the clause of the General Provisions entitled "Subcontracts (JUN 2007)," FAR 52.244-2(j), the Contracting Officer hereby consents to the placement of subcontract(s) with the following firm(s)/consultant(s) at the ceiling amounts specified:

Subcontractor	Estimated Cost
(b)(4)	

(b) Approval must be obtained from the Contracting Officer to increase/decrease of the above listed subcontractors by greater than 10% from the level established in paragraph (a) above.

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE		PAGE OF PAGES 1 2	
2 AMENDMENT/MODIFICATION NO P00016		3 EFFECTIVE DATE 04-Mar-2011		4 REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5 PROJECT NO (If applicable)	
6 ISSUED BY DARPA CMO (b)(6) ATTN (b)(6) 3701 N. FAIRFAX DR. ARLINGTON VA 22203		CODE HR0011		7 ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer 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)							
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.							
X 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).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> 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 Control Number: jyeung11598 <div style="text-align: center;">(See Page 2)</div>							
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)			
				(b)(6)			
				TEL: (b)(6)		EMAIL: (b)(6)	
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				BY (b)(6)		04-Mar-2011	
				(Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to administratively change the Defense Contract Audit Agency (DCAA) office cognizant for the Contract and its corresponding Department of Defense Activity Address Code (DoDAAC). Accordingly, make the following changes:

SECTION G - CONTRACT ADMINISTRATION DATA

At Section G-2 - Electronic Submission of Payment Requests:

- Under paragraph (b), delete DCAA Office DoDAAC "HAA102" and replace it with "HAA063." Paragraph (b) is revised to read as follows:

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

WAWF Invoice Type:	Select Cost Voucher for all Cost or T&M contracts or CLINs
Issuing Office DoDAAC	HR0011
Admin Office DoDAAC	S1005A
Service Approver DoDAAC (Cost Voucher)	S1005A
DCAA Office DoDAAC (Used on Cost Vouchers only)	HAA063
Paying Office DoDAAC	HQ0338

- Under paragraph (c):

Delete: DCAA Lockheed Martin Orlando Resident Office
P.O. Box 140853
Orlando, FL 32814-0853
DoDAAC: HAA102
E-mail: dcaa-fao1461@dcaa.mil

Replace with: DCAA/Melbourne
P.O. Box 61625
Palm Bay, FL 32906-1625
DoDAAC: HAA063

Paragraph (c) is revised to read as follows:

(c) Cost Vouchers from Contractors approved by DCAA for direct billing will be directly routed to DFAS. Cost Vouchers from Contractors not approved for direct billing will be routed to DCAA for approval before the Cost Voucher is routed to DFAS. All Final Cost Voucher submissions will be routed to the Service Approver for approval. The DCAA office for this award is:

DCAA/Melbourne
P.O. Box 61625
Palm Bay, FL 32906-1625
DoDAAC: HAA063

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

1 2

2. AMENDMENT/MODIFICATION NO
P000173. EFFECTIVE DATE
15-Mar-20114. REQUISITION/PURCHASE REQ. NO.
SEE SCHEDULE

5. PROJECT NO. (if applicable)

6. ISSUED BY

CODE HR0011

DARPA
CMO
ATTN: (b)(6)
3701 N. FAIRFAX DR
ARLINGTON VA 22203

7. ADMINISTERED BY (If other than item 6)

CODE S1005A

DCMA LOCKHEED MARTIN ORLANDO
5600 SAND LAKE RD
MP 49
ORLANDO FL 32819-8907

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)

LOCKHEED MARTIN CORPORATION
5600 W SAND LAKE RD MP125
ORLANDO FL 32819-8907

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

X 10A. MOD. OF CONTRACT/ORDER NO.
HR0011-09-C-0096

10B. DATED (SEE ITEM 13)

X 29-Jun-2009

CODE 04939

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 Offer

☐ is extended.☐ is not extended

Offer 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)

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.

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)

X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(a) and Section H-3

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

Modification Control Number jyeung11640

(See Page 2)

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.

(b)(4)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

(b)(6)

TEL

EMAIL

(b)(6)

15C. DATE SIGNED

16B

(b)(6)

16C. DATE SIGNED

2011 MAR 15 BY

3-15-11

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.245

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to change the key personnel for the Contract and revise Attachment No. 6 – LRASM-A Phase 2 Statement of Work without a contract CPFF change or schedule change. Accordingly, make the following revisions:

SECTION H - SPECIAL CONTRACT REQUIREMENTS

At Section H-3 - Key Personnel, under paragraph (a), replace (b)(4) with (b)(4) as the (b)(4) Section H-3 is revised to read as follows:

H-3 Key Personnel

(a) The Contractor shall notify the Contracting Officer prior to making any change in key personnel. Key personnel are defined as follows:

(b)(4)

(b) The Contractor must demonstrate that the qualifications of the prospective personnel are equal to or better than the qualifications of the personnel being replaced. Notwithstanding any of the foregoing provisions, key personnel shall be furnished unless the Contractor has demonstrated to the satisfaction of the COR that the qualifications of the proposed substitute personnel are equal to or better than the qualifications of the personnel being replaced.

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

Revise the description of Attachment No. 6 as follows:

Delete: Attachment No. 6 - LRASM Phase 2 Statement of Work, dated November 11, 2010 (17 pages)

Replace with: Attachment No. 6 (revised) – LRASM-A Phase 2 Statement of Work, dated March 15, 2011 (18 pages)

ATTACHMENT NO. 6 - LRASM PHASE 2 STATEMENT OF WORK

Under Section 5.1 of the Statement of Work, delete the sentence: “The Contractor shall deliver an update to the Transition Plan.”

A copy of the revised Attachment No. 6 is incorporated into the Contract by this Modification P00017, which replaces the version originally included under Modification P00010.

~ End ~

**STATEMENT OF WORK
FOR
LONG RANGE ANTI SHIP MISSILE (LRASM)
VARIANT A - AIR LAUNCHED

PHASE 2**

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1.0 Introduction

The purpose of this Statement of Work is to identify the requirements for Lockheed Martin (“Contractor”) to support the Defense Advanced Research Projects Agency (DARPA) in the Long Range Anti-Ship Missile (LRASM) program for an air launched flight demonstration of LRASM-A. The system to be developed under this Statement of Work (SOW) shall be referred to as “LRASM-A.”

The program is divided into two phases. Phase 1 culminated in a Preliminary Design Review (PDR) of a ship launched version. Phase 2 will complete a Critical Design Review (CDR) of the air launched version, and following Government approval of the CDR, will execute a flight test series of the air launched LRASM-A version. This SOW covers only the activity to be completed in Phase 2.

2.0 Supplies and Services

The Contractor shall furnish the necessary management, personnel, labor, services, documentation, materials, equipment, tools, facilities, and support services required to perform the tasks necessary to build, test, integrate, and demonstrate associated components for the development and demonstration of the LRASM-A prototype system in accordance with the provisions of this SOW and the contract.

Pre-CDR

Prior to CDR, the Contractor shall complete the detail design of the LRASM-A weapon system, and deliver the design except for specific COTS or MOTS items or subsystems not developed on this program as specified in Appendix A. The detail design drawings other than those specified in Appendix A shall be delivered in Contractor format on electronic media. The Contractor shall conduct demonstration and performance assessment of all subsystems through testing, simulation, or analogy as specified for each subsystem in this SOW. The Contractor shall conduct system operational effectiveness assessment relative to DARPA defined threats, scenarios, and environments. The Contractor shall develop and deliver design and transition support documentation as defined in this SOW. The Contractor shall execute long lead procurements as defined in Appendix B to support LRASM-A post-CDR test events. Any additional long-lead items to be procured prior to CDR must be approved by the DARPA program manager and COR via email concurrence to the Contractor’s POC.

The Contractor shall deliver the system detail design, 6DOF simulation source code, and all requested test and simulation data. The Contractor shall participate in Government Assessment Team (GAT) technical interchanges as necessary to support independent government assessment of LRASM-A capability.

Post-CDR

The Contractor shall complete the fabrication, integration, flight test qualification, and flight demonstration of no less than two LRASM-A weapons as specified in this SOW. Simulation, Hardware-in-the Loop (HWIL) testing, and captive carry testing shall be executed to verify system integration, provide risk reduction to flight test events, and conduct data collection for extrapolation to broader mission requirements. Operational effectiveness estimates will be updated based on test results. The Contractor shall develop and deliver design documentation as defined in this SOW. The Contractor shall procure, manufacture, assemble, and test the subsystems and test articles required to complete the flight tests.

The Contractor shall deliver the system as built detail design, interfaces, source code, and all test and simulation data. The Contractor shall participate in GAT technical interchanges as necessary to support independent government assessment of LRASM-A capability.

3.0 Detailed description of supplies and services

3.1 *Pre-CDR*

3.1.1 *Flight Vehicle*

Prior to CDR, the Contractor shall perform the necessary activities to complete the design of the flight vehicles, to include the following tasks:

3.1.1.1 *Propulsion*

The Contractor shall complete the detail design of the propulsion subsystem. The Contractor shall assess the performance of the propulsion subsystem and provide the analysis report electronically in mutually agreeable format.

DARPA and the Contractor agree to use the alternator as is from JASSM ER design for LRASM-A.

The contractor shall complete a detail design of the fuel system modifications that will be required to provide space for the RF sensor (RFS).

The Contractor shall develop any long lead tooling required for the manufacture of the propulsion and fuel systems. The Contractor shall order long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.2 *Payload*

The Contractor shall complete the detail design of the tactical warhead and fuze, and of the inert configuration to be used for Phase 2 flight tests. The Contractor shall develop any long lead tooling required for the manufacture of the inert warhead. The Contractor shall order long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.3 *Airframe*

The Contractor shall complete the detail design of the airframe. The Contractor shall assess the performance of the airframe through scaled wind tunnel testing and dynamic structural analysis and testing. All analysis reports and test reports along with requested test data, shall be provided electronically in Contractor format.

Requirements for weight and balance limits as well as test unique equipment such as telemetry and flight termination subsystems shall be accommodated in the design.

The Contractor shall develop any long lead tooling required for the manufacture of the airframe. The Contractor shall order the long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.4 *Guidance, Navigation, and Control*

(b)(3):22 USC §2778(e) Sec 38(e)

(b)(3):22 USC §2778(e) Sec 38(e)

3.1.1.5 Airborne Test Equipment

The Contractor shall complete the detail design of the Telemetry System (TMS). The Contractor shall assess and test the performance of the TMS as necessary to complete flight and range qualification.

The Contractor shall provide detailed technical information on the JASSM-ER Flight Termination System (FTS) and support the range safety approval process at Point Mugu.

The Contractor shall develop any long lead tooling required for the manufacture of the TMS. The Contractor shall order the long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.2 Systems Engineering

The Contractor shall refine and maintain system requirements, including traceability to component specifications, in a DOORS database and requirements verification matrix. The Contractor shall finalize the CONOPS. The Contractor shall develop and fully implement tactics to maximize mission effectiveness, including autonomous dynamic routing, threat avoidance, altitude control, threat response, defensive features, and terminal weaponeering.

The Contractor shall support DARPA and the USN in the process of defining and designing the system protection requirements for LRASM-A. The design activity will be dependent on the definition derived with DARPA and USN. To the extent that the design requirements are defined in the first 3 months of the contract and they are non-intrusive changes to items already being designed

or modified they will be incorporated. Extensive changes or changes requested after the system design is underway may require scope changes to the contract.

The Contractor shall complete the detail design of the integrated system and present the design at a CDR. The Contractor shall develop and deliver weapon external ICDs and internal subsystem ICDs to at least WBS level three. The Contractor shall demonstrate and assess the performance of the integrated system by system level multispectral signature modeling, end-to-end closed-loop 6-DOF simulation, integrated HWIL simulation, RCS pole model measurement, and captive carry testing of the avionics suite. All requested test data and analysis reports shall be provided electronically in Contractor format. The Contractor shall develop and deliver a fully populated aerodynamic model in a 6-DOF simulation, and shall provide updated range and performance assessments. The simulation source code shall be provided electronically in Contractor format.

The Contractor shall develop a HWIL simulation. The HWIL shall simulate external interfaces where practical and record hardware and software response from inserted subsystems or subsystem simulators. All requested test data and analysis reports shall be provided electronically in Contractor format.

The Contractor shall deliver a Critical Design Report consisting of the Critical Design Review presentation and the detail design drawing package. The Contractor shall deliver updates to the System Specification, Concept of Operations (CONOPS), and Operational Effectiveness Report (OER). The OER shall use the reliability predictions from Phase 1 as no reliability predictions are part of Phase 2 activity.

3.1.3 Systems Test and Evaluation

The Contractor shall perform the necessary activities to conduct system testing, to include the following tasks:

The Contractor shall execute scaled wind tunnel testing of the system. The Contractor shall provide a wind tunnel test plan, all requested test data, and a post-test report electronically in Contractor format.

The Contractor shall develop a captive carry capability for the missile avionics suite. The captive carry unit shall include representative prototypes of all GNC hardware and software. Captive carry testing shall be completed over representative missile trajectories in operationally representative environments, including cooperative military targets and targets of opportunity to the extent possible within flight safety allowances. Prior to CDR, the Contractor shall conduct at least one captive carry test that demonstrates the integrated avionics suite operation. The Contractor shall provide a captive carry test plan, all requested test data, and post-test report for each captive carry series electronically in Contractor format.

The Contractors shall conduct a RCS pole model test of the entire missile body with all tactical external features included.

The Contractor shall deliver an updated Test and Evaluation Master Plan (TEMP). The TEMP shall include summary of all testing completed to date, preliminary test planning for all post-CDR events, as well as anticipated certification testing required in EMD to achieve IOC.

3.2 *Post-CDR*

3.2.1 *Flight Vehicle*

The Contractor shall perform the necessary activities to complete and manufacture flight vehicles, to include the following tasks:

3.2.1.1 *Propulsion*

The Contractor shall fabricate and test any tooling required for the manufacture of the propulsion system. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an Acceptance Test Procedure (ATP) approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.2 *Payload*

The Contractor shall fabricate and test any tooling required for the manufacture of the inert warhead. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.3 *Airframe*

The Contractor shall fabricate and test any tooling required for the manufacture of the airframe. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.4 *Guidance, Navigation, and Control (GNC)*

(b)(3):22 USC §2778(e) Sec 38(e)

3.2.1.5 *Airborne Test Equipment*

The Contractor shall fabricate and test any tooling required for the manufacture of the TMS and FTS. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.6 Integration, Assembly, Test and Checkout

The Contractor shall integrate all subsystems and components into the flight vehicles. The Contractor shall complete Pre-Flight Certification Testing (PFCT) of each flight vehicle. All test data and PFCT reports shall be provided electronically in Contractor format.

3.2.2 Range Safety Coordination

The Contractor shall develop the mission plan for each flight test and coordinate the plan with the Range Safety Officer (RSO) at Point Mugu.

3.2.3 Systems Engineering

The Contractor shall complete the verification matrix of requirements. The Contractor shall maintain the specification tree, requirements database, and verification matrix.

The Contractor shall conduct end-to-end 6-DOF Monte-Carlo simulation and performance predictions at least four weeks prior to each flight test event and present the data at the Test Readiness Review (TRR) for each event. The Contractor shall compile mission success statistics and conduct failure analysis of identified failure modes. All data and test reports shall be provided electronically in Contractor format.

The Contractor shall utilize the HWIL facility to demonstrate system integration, resolve integration issues, demonstrate end-to-end mission simulation prior to flight test events, and evaluate system performance against the system specification.

The contractor shall support Systems Integration Lab (SIL) testing at the Boeing B-1 SIL prior to each flight test (unless there are no software changes).

The Contractor shall conduct captive carry tests of a fully integrated avionics suite to demonstrate and assess system performance, and to collect data against representative targets to verify and improve the end-to-end 6-DOF simulation and subsystem performance.

The Contractor shall conduct comparative analysis after each test event using the 6-DOF monte carlo simulation and test event telemetry. Any significant deviation will be assessed for cause and performance implications. A Failure Review Board (FRB) shall be convened to determine root cause and corrective action for any significant deviation from expected performance. Corrective actions and system refinement for mission critical items will be implemented prior to subsequent test events requiring that system attribute. The comparative analysis and FRB status shall be documented in the test report. The GAT and DARPA will participate in the FRB process. All data and test reports shall be provided electronically in Contractor format.

Following the final demonstration event, the Contractor shall support final system effectiveness assessments by the GAT. The Contractor shall deliver updates to the System Specification.

The Contractor shall deliver any updates to the detail design drawings delivered prior to CDR. The Contractor shall deliver the final versions of the missile OFP and GNC source code.

3.2.4 Systems Test and Evaluation

The contractor will conduct two flight tests in Phase2 that will incrementally demonstrate the missile's capability to launch from a B1-B, navigate to the target area, find the target, and defeat the target. Both flights will be conducted at the Point Mugu Sea Range (PMSR).

The Contractor shall execute a free flight transition test (FFTT) demonstrating the ability of the weapon to transition from captive carriage on the B1-B to controlled free flight with engine running.

Secondary objectives of the FFTT shall include target acquisition and track, receipt of in flight target updates (IFTUs) using the WDL, autonomous ingress to the target (as permitted by the range), terminal guidance to the target, and transmission of bomb hit indication (BHI) information over the WDL. The test plan shall be provided to DARPA in Contractor format for approval, and the test report shall be delivered to the GAT electronically in Contractor format.

The Contractor shall execute a final end-to-end integrated flight demonstration (IFD) of LRASM-A system capabilities. Primary objectives of the IFD shall include target acquisition and track, receipt of IFTUs using the WDL, autonomous ingress to the target (as permitted by the range), terminal guidance to the target, and transmission of BHI information over the WDL, followed by target impact. The test plan shall be provided to DARPA in Contractor format for approval, and the test report shall be delivered electronically in Contractor format.

The Contractor shall conduct four Missile Avionics Simulators (MAS) flight tests events to reduce risk for the sensor suite and avionics and rehearse the FFTT and IFD. The last two MAS flight test events will be conducted at PMSR and will include flights against the same targets that will be included in the IFD.

The Contractor shall electronically transfer to the GAT the decrypted and decommutated telemetry data from each flight test NLT 5 working days after the Contractor receives the tapes in Orlando.

3.2.5 Auxiliary Equipment

The Contractor shall fabricate and test any auxiliary equipment required for system fabrication, integration, PHST, and flight test. The Contractor shall procure, fabricate, and test items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

4.0 Period of Performance

The period of performance for Phase 2 shall be 26 months.

5.0 Program Management

5.1 Program Management

The Contractor shall provide the managerial oversight and direction for the program. This will include planning, financial reporting, security, personnel, subcontract management and administration, procurement, production management, product assurance (quality), and technical direction. The Contractor shall manage all subcontracts.

The Contractor shall deliver a level four Work Breakdown Structure (WBS) and Integrated Master Schedule (IMS).

5.2 Master Schedule and Reports

The Contractor shall appoint a Program Manager to provide overall program direction with authority for technical, personnel, and all other resource allocations. The Contractor shall deliver a master plan and IMS. The Contractor shall provide monthly reports identifying any tasks that are behind schedule and reporting expenditures by WBS.

5.3 Technical Reviews

The Contractor shall conduct at least three In-Process Reviews (IPR) (approximately quarterly) and a Critical Design Review (CDR) at its Orlando facilities. IPRs will be no more than two day events covering recent and pending Phase 2 test events and review of the design status. Test Readiness Reviews (TRR) will be one day events at the Contractor facilities for all test events defined in the TEMP (teleconference will be made available for unclassified portions if requested).

The CDR shall cover the following items:

- a) Program Overview and CONOPs review
- b) Requirements, interfaces, and TPMs
- c) Requirements flowdown and allocation
- d) System detail design review
- e) System simulation results
- f) Developmental test results
- g) Operational effectiveness assessment
- h) Safety
- i) Hardware, software, and support equipment
- j) Risk/opportunity management
- k) Phase 2 schedule review

The Contractor shall conduct TRRs for the test activities defined in this SOW at its Orlando facilities.

The TRRs shall cover the following items:

- a) Test overview - Include test objective/purpose, description, time, and location
- b) Test team - Identify test conductor and support team
- c) Test pass/fail criteria
- d) Test matrix and/or test schedule
- e) Test set-up/configuration
- f) Test predictions
- g) Identification of first time events
- h) Instrumentation
- i) Hardware pedigree
- j) Testing history
- k) Software pedigree
- l) Support equipment and spares
- m) Test procedures
- n) Safety issues/concerns
- o) Facilities
- p) Open items list (to include open action items from previous reviews)
- q) Risk assessment
- r) Action items, including identification of those actions items which must be completed prior to test commencement

5.4 Methods of Communication

The Contractor shall participate in weekly telecons with DARPA and the GAT, maintain the unclassified SharePoint site, utilize public key infrastructure encryption for unclassified FOUO email, and maintain the encrypted classified data links to DARPA and JHU/APL.

6.0 Safety

The Contractor shall prepare the source data and develop the application for Interim Hazard Classifications for any hardware containing explosives or fuels for shipping authority. The Contractor shall deliver updates to the System Safety Hazard Assessment (SSHA) as required.

7.0 Requirements for the DARPA GFE RFS and RFS Contractor

7.1 RFS GFE Delivery Dates

The RFS will be provided as GFE. The RFS will be developed by DARPA under a direct contract to DARPA's RFS Contractor (DRC). The Contractor shall assist DARPA with technical monitoring of the DRC. **Error! Reference source not found.** establishes the GFE need dates to meet the LRASM-A schedule. Any delay in the deliverables may result in a cost and schedule impact to the Contractor. Table 2 delineates the specification and interfaces the RFS GFE is required to meet as part of the overall LRASM-A system. To the extent that the RFS system does not meet the specification, then it may have a flowdown effect on the LRASM capability. Additional specification and interface requirements are listed in classified Appendix C. There are some requirements identified as TBD in the documents that the Contractor and DRC have to define during the first 4 months after contract award (see Table 1, Item 4). It is anticipated that the Contractor and the DRC will need to meet periodically as defined in Table 1, Items 2, 3, 4, 5, 6, and 13 to accomplish the task of defining the TBDs and verifying ICD accuracy.

Table 1. RFS Delivery Schedule

Item	Date	Milestone	Responsibility and/or Objective(s)
1	2 weeks ARO	Kickoff /specification meeting at RFS supplier	DARPA
2	4 months ARO	Technical meeting	DARPA
3	6 months ARO	Technical meeting	DARPA
4	2.5 months ARO	Technical meeting /TBDs defined in specification and ICDs	Contractor/DARPA
5	8 months ARO	Technical meeting	DARPA
6	10 months ARO	Technical meeting	DARPA
7	3 months ARO first update. Incremental thereafter when updates occur. Final with RFS CDR material delivery (Item 16)	Updated RFS simulation code	DARPA
8	9 months ARO	Deliver RFS HIL&MAS prototype and HIL integration support	DARPA
9	9 months ARO	Contractor provide MAS pod to DRC	Contractor
10	11 months ARO	Install and calibrate aperture in MAS	DARPA

Table 1. RFS Delivery Schedule

Item	Date	Milestone	Responsibility and/or Objective(s)
		pod	
11	12 months ARO	MAS integration	Contractor/DARPA
12	13 Months ARO	MAS flight event	Contractor/DARPA
13	10 months ARO	Technical meeting	DARPA
14	13 months ARO	Fit check model delivered	DARPA
15	14 months ARO	Support aperture calibration test	DARPA
16	14 months ARO	RFS CDR materials delivered	DARPA
17	15 months ARO	MAS flight event	Contractor/DARPA
18	1 month after CDR	1st RFS Delivery	Orlando, FL
19	2 months after CDR	2nd RFS Delivery	Orlando, FL
20	3 months after CDR	3rd RFS Delivery	Orlando, FL
21	3 months after CDR	MAS Flight Event	TBD
22	5 months after CDR	MAS Flight Event	Pt Mugu
23	8 months after CDR	MAS Flight Event	PT Mugu
24	6 months after CDR	FFF Event	Pt Mugu
25	10 months after CDR	IFD Event	Pt Mugu

Table 2. RFS Specification and Interface Requirements

Document Number	Title
797219021	Performance Specification, RF Sensor (RFS)
797219022	Mechanical ICD
797219023	RFS Communications Interface Control Document
797219024	RFS Electrical Interface Control Document

7.2 Phase 2 Additional Required Deliverables Description

7.2.1 System Simulation Support

The DRC shall provide updates to the RFS simulation source code, models and/or RFS algorithm performance emulators provided from BAE Systems in Phase 1 to support the Contractor's system level simulation analysis (need dates as shown in Table 1, Item 7).

7.2.2 Aperture Development - AUR

The DRC shall support Lockheed Martin in the development of the RFS aperture by reviewing/commenting on the Contractor's All Up Round (AUR) aperture design and placement and supporting the maintenance of the interface control documents.

7.2.3 Aperture Development - MAS

The DRC shall support the Contractor in the development of the Missile Avionics Simulator (MAS) aperture by selecting, procuring, installing, and calibrating the COTS aperture on the MAS test bed IAW Table 1, Item 9/10.

7.2.4 Hardware in the Loop (HIL)

The DRC shall provide a prototype RFS for use in the Contractor's HIL in Orlando, FL IAW Table 1, Item 8. The prototype RFS shall provide representative functionality of the system, but is not required to meet the form, fit, and environmental requirements. The DRC shall provide 3 one week support activities to the Contractor in Orlando, FL to support the integration of the Contractor's HIL. The same unit shall be usable in the MAS (See below).

The DRC shall also provide 3 one week support activities to the Contractor in Orlando, FL to support the integration and testing of each delivered RFS on the Contractor's HIL. The 3 one week support activities shall be commensurate with each of the 3 RFS deliveries (Table 1 items 18, 19, and 20).

7.2.5 Missile Avionics Simulator (MAS)

The DRC shall support the initial MAS integration in Orlando, FL. The DRC shall be in place with knowledgeable technicians and engineers to support the integration activity for at least 3 weeks (See Table 1, Item 11). The DRC shall support all five MAS operations identified in Table 1 by reviewing the test plans for each mission and reviewing the data collected. One test flight is expected prior to CDR. A report detailing the RFS data analysis and results from each MAS test is due NLT 3 weeks

after the mission. The estimated schedule for the MAS flight events is shown in Table 1, Items 11, 12, 21, 22 and 23.

7.2.6 Aperture Development Support

The DRC shall support the Contractor in the calibration of the aperture if required. The DRC shall review test plans and test set-up to ensure calibration is of the type and accuracy required by DRC. The testing will be conducted in Orlando, FL IAW Table 1, Item 15.

7.2.7 Fit Model

The DRC shall provide form and fit mass simulator for use in fit check and assembly test at the Contractor's facility in Troy, AL as defined in Table 1, Item 14. The DRC shall provide updated form and fit mass simulator for use in fit check and assembly test at Troy, AL if changed from the pre-CDR unit.

7.2.8 CDR

The DRC shall support the LRASM-A system level CDR with required documentation and viewgraphs of the design and analysis of the RFS. The data shall be provided in accordance with Table 1, Item 16.

7.2.9 Flight Test Support

The DRC shall support the two flight operations by reviewing the test plan for each mission and reviewing the data collected. A report detailing the RFS data analysis and results is due NLT 3 weeks after each mission. The estimated schedule for the flight test is shown in Table 1, Items 24 and 25.

OTHER REPORTS AND DELIVERABLES

Title	Draft	Final	Update
Contract Work Breakdown Structure for Phases 2a and 2b		30 days ACA	
Master Plan and Integrated Master Schedule for Phase 2		30 days ACA	Monthly
CONOPS			3 weeks prior to CDR
Test and Evaluation Master Plan			4 weeks prior to CDR
System Safety Hazard Assessment			4 weeks prior to CDR
Interim Hazard Classification Data			4 weeks prior to CDR
LRASM-A Air-Launched System Specification			4 weeks prior to CDR and 4 weeks prior to IFD

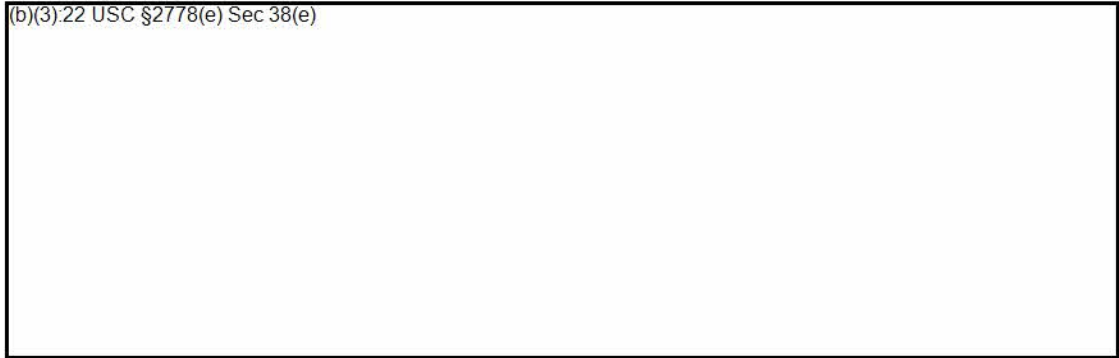
LRASM-A detail design drawings, interface specifications, and Critical Design Report	4 weeks prior to CDR	2 weeks after CDR	With final report
Operational Effectiveness Analysis Report			4 weeks prior to CDR
Test Plan		60 days prior to each test event	
Test Report		30 days after each test event	
OFP and GNC software	4 weeks prior to CDR	With final report	
Final Report		30 days after the IFD	

Appendix A

This Appendix defines the drawings that will not be provided to the Program Office (DARPA) as part of the design drawing package. There are three categories of drawings to be excluded from the drawing package:

- A. Drawings of commercial parts such as screws, washers, nuts, adhesives, glues, etc. will be referenced in the parts list of the design drawing but no detail specification or drawing of these items shall be provided.

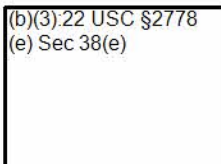
- B. (b)(3):22 USC §2778(e) Sec 38(e)



- C. Commercial Off the Shelf (COTS) subsystems such as the Altimeter, IMU, Weapon Data Link components not developed for LRASM-A, telemetry system components, and flight termination components.

Appendix B

This appendix lists all the items to be purchased prior to CDR in order to support the testing in Phase 2. The list is divided into two pieces. The lists are in the form of a embedded Excel® files for ease of use: File JASSM Common.xlsx. Sheet 1 contains the list of JASSM common parts that will be acquired in a combined purchase with JASSM procurement. Sheet 2 is a list of parts that are not specifically quantified but will be before CDR and will need to be purchased in order to meet Phase 2 test schedule.



AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE U		PAGE OF PAGES 1 2	
2 AMENDMENT/MODIFICATION NO P00018		3 EFFECTIVE DATE 14-Apr-2011		4 REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5 PROJECT NO (If applicable)	
6 ISSUED BY DARPA CMO (b)(6) ATTN (b)(6) 3701 N FAIRFAX DR ARLINGTON VA 22203		CODE HR0011		7 ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MART N ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MART N CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14 The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer 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)							
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.							
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).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
X D. OTHER (Specify type of modification and authority) FAR 52.245-1 (JUN 2007) DEV							
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> 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 Control Number: cglista11766 See page 2.							
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) (b)(6) TEL: (b)(6) EMAIL: (b)(6)			
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNIT (b)(6) BY (Signature of Contracting Officer)		16C. DATE SIGNED 14-Apr-2011	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of this modification is to replace Contract Attachment No. 7 – Government Furnished Equipment/Property (GFE/GFP) List with an updated version. This change shall result in no increase to the total estimated contract cost. The updated Attachment No. 7 is provided as Enclosure 1 to this modification.

The following have been modified:

Section J - List of Documents, Exhibits and Other Attachments

DELETE:

Attachment No. 7 - Government Furnished Equipment/Property (GFE/GFP) List, dated February 10, 2011 (3 pages)

REPLACE WITH:

Attachment No. 7 - Government Furnished Equipment/Property (GFE/GFP) List, dated April 14, 2011 (3 pages)

(End of Summary of Changes)

Requirements to be provided as Government Furnished and Government Furnished Property Matters:

1. Rent Free Use:

The Government hereby authorizes the Contractor to utilize the Government property, including production and assembly tooling and test equipment, accountable under the following Air Force Joint Air-to-Surface Standoff Missile (JASSM) program contracts, on a rent-free, non-interference use basis until the completion of the Contract:

FA8682-10-C-0016
FA8682-07-C-0117
FA8682-04-C-0060
FO8682-96-C-0002

This authorization is given, provided that:

- a) the use of the Government property is strictly limited to the support of the Contractor's technology demonstrations for the LR-ASM Program under the Contract;
- b) the Government property may be modified or altered and shall not be used for any commercial programs. Modified or altered Government property will be returned to its unmodified/unaltered state prior to its return to the accountable contracts;
- c) the Contractor is responsible for all transportation, tracking, and maintenance, and costs for the same pertaining to the authorized use described in this paragraph; and
- d) the return of the Government property for the continued use in support of the respective Air Force contracts listed above in paragraph 1 upon completion of the Contract.

2. Government Furnished Property:

The following are required as Government Furnished as specified:

Description	Quantity	Need Date	Ship to Location
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Jul-2011	LMMFC-Orlando
MAS Pod Antennas	1 set	1-Aug-2011	BAE
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Feb-2012	LMMFC-Orlando
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Mar-2012	LMMFC-Orlando
RF Sensor as reference to Attachment No. 6 – SOW for LR-ASM Phase 2, Section 7)	1	1-Apr-2012	LMMFC-Orlando
AN/CYZ-10 Data Transfer Device	1	1-Mar 2011	LMMFC-Orlando
AN/CYZ-10 Data Transfer Device	1	1-Sep-2011	LMMFC-Orlando
Ship Motion Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando
Wave Motion Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando
WDL Model for 6DOF Simulation	1	5-Jan-2011	LMMFC-Orlando

Description	Quantity	Need Date	Ship to Location
Inert JASSM Warhead (Serial No. 461)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 765)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 764)	1	3-Feb-2011	LMMFC-Orlando
Inert JASSM Warhead (Serial No. 738)	1	3-Feb-2011	LMMFC-Orlando
JASSM Fuel Systems Vehicle (FSV), P/N 79607999-109, S/N JB00013	1	15-Apr-2011	LMMFC-Orlando
JASSM-ER Instrumented Measurement Vehicle (IMV), P/N 79607999-079, S/N JB00002	1	15-Apr-2011	LMMFC-Orlando

3. Test Range and Target Requirements:

- a. The Government shall furnish the Test Range(s) required for contract performance. Included in the Government's responsibilities are:
 - i. coordination of all test range availability and access;
 - ii. test range support and operations to include power and space for contractor test equipment for test performance; and
 - iii. all targets and range recording equipment and operation.

All aspects of testing on Test Range facilities shall be considered Government furnished except for the test article (e.g. weapon) that the contractor provides, and contractor personnel to observe the testing and to operate the contractor's test equipment.

- b. The specific test range requirements currently identified to be furnished by the Government are as follows:

Event Description	Quantity	Range/Site	Location
1. Free Flight Transition Test	1	Point Mugu Sea Range (PMSR)	Point Mugu, CA
2. Integrated Flight Demonstration	1	PMSR	Point Mugu, CA
Event Descriptions 1 and 2 Comments: Phase 2 test. The test set-up shall represent a realistic threat environment to the LRASM A. Representative physical targets and emitters are required. Range availability shall support the contractor's Program Master Schedule. The Government shall provide a USAF conducted SIL test at the launch aircraft SIL to verify proper communication with the LRASM A in support of this test event. Also required to be furnished by the Government is a launch aircraft and all support crew to conduct a flight test mission to include the storage and loading of the LRASM A at the Government selected airbase of operation. LM ground support personnel will require access to the missile before and after loading to check FTS and TM operation.			
3. Captive Carriage tests using the Missile Avionics Simulator (MAS)	TBD	TBD	US east coast for initial testing and PMSR.
Event Description 3 Comments: The Government shall arrange for the US Navy to allow the Contractor to use ships underway at sea as targets of opportunity for image and RF Sensor data collection. MAS testing at PMSR will require representative physical targets and emitters. Range availability shall support the contractors Program Master Schedule which currently reflects the notional schedule for this testing. The specific dates will be defined by the contractor as the program progresses.			

4. Encryption Keys:

The Government shall furnish the encryption keys as and when required by the contractor for use in the GPS receiver, WDL transceivers, and telemetry transmitter.

5. Threat Data Access:

The Government shall ensure that the contractor is granted continued access to treat data bases as required during the period of this contract.

6. Hazard Classification Support:

The Government shall process contractor hazard classification requests as required.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE		PAGE OF PAGES 1 2	
2 AMENDMENT/MODIFICATION NO P00019		3 EFFECTIVE DATE 11-May-2011		4 REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5 PROJECT NO (If applicable)	
6 ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR. ARLINGTON VA 22203		CODE HR0011		7 ADMINISTERED BY (If other than item 6) DCMA SPECIAL PROGRAMS SOUTH 14285 M DWAY SUITE 450 ADDISON TX 75001		CODE S4802A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer 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.							
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X 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).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> 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 Control Number: jyeung11824 <div style="text-align: center;">(See Page 2)</div>							
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) CHRIS GLUSTA / TEL: (b)(6) EMAIL: (b)(6)			
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA (b)(6) BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED 11-May-2011	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to change the administrative office for the Contract from DCMA Lockheed Martin Orlando to DCMA Special Programs South and to update its corresponding Department of Defense Agency Activity Code (DoDAAC). Accordingly, make the following revisions:

SECTION A - SOLICITATION/CONTRACT FORM

- In Block 6 of the Standard Form (SF) 26 and in Block 7 of the SF 30, the 'Administered By' organization is changed from:

DCMA LOCKHEED MARTIN ORLANDO (DoDAAC: S1005A)
 5600 SAND LAKE RD
 MP 49
 ORLANDO FL 32819-8907
 to
 DCMA SPECIAL PROGRAMS SOUTH (DoDAAC: S4802A)
 14285 MIDWAY
 SUITE 450
 ADDISON TX 75001

SECTION G - CONTRACT ADMINISTRATION DATA

- At Section G-2 - Electronic Submission of Payment Requests, paragraph (b), delete “S1005A” and insert “S4802A” as the Admin Office DoDAAC and Service Approver DoDAAC. Paragraph (b) is revised to read as follows:

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

WAWF Invoice Type:	Select Cost Voucher for all Cost or T&M contracts or CLINs
Issuing Office DoDAAC	HR0011
Admin Office DoDAAC	S4802A
Service Approver DoDAAC (Cost Voucher)	S4802A
DCAA Office DoDAAC (Used on Cost Vouchers only)	HAA063
Paying Office DoDAAC	HQ0338

- Delete Section G-3 - Delegation of Authority for Contract Administration – in its entirety and replace it with the following updated Section G-3:

G-3 Delegation of Authority for Contract Administration

DCMA Special Programs South is hereby designated as the Contracting Officer's authorized representative for administering this contract in accordance with current directives.

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE		PAGE OF PAGES 1 2	
2 AMENDMENT/MODIFICATION NO P00020		3 EFFECTIVE DATE 17-Jun-2011		4 REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5 PROJECT NO (If applicable)	
6 ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR. ARLINGTON VA 22203		CODE HR0011		7 ADMINISTERED BY (If other than item 6) DCMA SPECIAL PROGRAMS SOUTH 14285 M DWAY SUITE 450 ADDISON TX 75001		CODE S4802A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer 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)							
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.							
X 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).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> 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 Control Number: jyeung11993 <div style="text-align: center;">(See Page 2)</div>							
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)			
				(b)(6) TEL: (b)(6) EMAIL: (b)(6)			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				BY (b)(6) (Signature of Contracting Officer)		17-Jun-2011	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to provide additional funding to partially fund CLIN 0002 (Phase 2) and the Contract. Accordingly, make the following changes:

SECTION B - SUPPLIES OR SERVICES AND PRICES

- Add SubCLIN 000204 as follows:

<u>ITEM NO.</u>	<u>SUPPLIES/SERVICES</u>
000204	Funding for CLIN 0002 AO No. Z907/05 ACRN AE: \$10,000,000.00

SECTION G - CONTRACT ADMINISTRATION DATA

- Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for the Contract is increased by \$10,000,000.00 from \$61,121,053.00 to \$71,121,053.00.

SubCLIN 000204:

Funding on SUBCLIN 000204 is initiated as follows:

ACRN: AE
CIN: 00000000000000000000000000000000
Acctng Data: 1711319 W3DJ 255 RA353 0 068342 2D 000000 02911000LS10 068342 AA
Increase: \$10,000,000.00
Total: \$10,000,000.00
(ARPA Order No. Z907/05)

- Add a new Section G-7 – Incremental Funding – to read as follows:

G-7 Incremental Funding

(a) This Contract shall be subject to incremental funding with \$71,121,053.00 presently made available for performance under this Contract. It is estimated that the funds presently available are sufficient to permit the Contractor's performance through October 31, 2011. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of \$71,121,053.00 shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this Contract.

SECTION I - CONTRACT CLAUSES

Delete: FAR 52.232-20 - Limitation of Cost (APR 1984)
Replace with: FAR 52.232-22 - Limitation Of Funds (APR 1984)

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE		PAGE OF PAGES 1 2	
2 AMENDMENT/MODIFICATION NO P00021		3 EFFECTIVE DATE 29-Jul-2011		4 REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5 PROJECT NO (If applicable)	
6 ISSUED BY DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR. ARLINGTON VA 22203		CODE HR0011		7 ADMINISTERED BY (If other than item 6) DCMA SPECIAL PROGRAMS SOUTH 14285 MIDWAY SUITE 450 ADDISON TX 75001		CODE S4802A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer 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) See Schedule							
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.							
X 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).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> 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 Control Number: jyeung111103 <div style="text-align: center;">(See page 2)</div>							
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)			
				TEL: (b)(6) EMAIL: (b)(6)			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				BY (b)(6)		29-Jul-2011	
				(Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to provide additional funding to fully fund CLIN 0002 (Phase 2) and the Contract. Accordingly, make the following changes:

SECTION B - SUPPLIES OR SERVICES AND PRICES

- Add SubCLIN 000205 to read as follows:

<u>ITEM NO.</u>	<u>SUPPLIES/SERVICES</u>
000205	Funding for CLIN 0002 AO No. Z907/07 ACRN AF: \$2,601,447.00

SECTION G - CONTRACT ADMINISTRATION DATA

- Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for the Contract is increased by \$2,601,447.00 from \$71,121,053.00 to \$73,722,500.00.

SubCLIN 000205:

Funding on SubCLIN 000205 is initiated as follows:

ACRN: AF

CIN: 00000000000000000000000000000000

Acctng Data: 9710400 1320 Z907 P1C40 2525 DPAC 1 5190 S12136 63286E

Increase: \$2,601,447.00

Total: \$2,601,447.00

- Delete the existing Section G-7 – Incremental Funding – in its entirety and replace it with the following revised Section G-7:

G-7 Incremental Funding

(a) The Contract is fully funded and it is subject to FAR 52.232-20.

SECTION I - CONTRACT CLAUSES

Delete: FAR 52.232-22 Limitation Of Funds (APR 1984)

Replace with: FAR 52.232-20 Limitation Of Cost (APR 1984)

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO P00022		3. EFFECTIVE DATE 21-Sep-2011		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO (if applicable)
6. ISSUED BY (CODE) DARPA CMO ATTN: (b)(6) 3701 N. FAIRFAX DR ARLINGTON VA 22203		7. ADMINISTERED BY (if other than item 6) DCMA SPECIAL PROGRAMS SOUTH 14285 MIDWAY SUITE 450 ADDISON TX 75001		CODE S4802A		
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-9807				9A. AMENDMENT OF SOLICITATION NO		
				9B. DATED (SEE ITEM 11)		
				X 10A. MOD. OF CONTRACT/ORDER NO HR0011-09-C-0096		
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009		
CODE 04939		FACILITY CODE				
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS						
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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 REFLECTION 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.						
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)						
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a)						
D. OTHER (Specify type of modification and authority)						
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.						
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number jyeung111272 <div style="text-align: center;">(See Page 2)</div>						
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 (b)(4)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)		16B. UNITED STATES OF AMERICA (b)(6)		16C. DATE SIGNED 9/21/11
15B. (b)(4)		SC. DATE SIGNED 7/21/11		16B. BY (Signature of Contracting Officer)		

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

With reference to the Contractor's request in a letter (Document Control No.: LR-OGC-2011-000021-0), dated September 1, 2011, the purpose of the modification is to revise the total amount of overtime premium cost authorized under the Contract from "does not exceed zero" to "does not exceed \$50,000.00". Accordingly, make the following changes:

SECTION I - CONTRACT CLAUSES

- At FAR 52.222-2, paragraph (a), revise the overtime premium cost from "does not exceed zero" to "does not exceed \$50,000.00." FAR 52.222-2 is incorporated into the Contract by full text as follows:

52.222-2 PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed **\$50,000.00** or the overtime premium is paid for work --

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall--

(1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

* Insert either "zero" or the dollar amount agreed to during negotiations. The inserted figure does not apply to the exceptions in paragraph (a)(1) through (a)(4) of the clause.

- Under "Remarks" in Section I, delete the following language:

At FAR 52.222-2, insert the word, "zero," in spaces marked with an asterisk (*)

~ End ~

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION G - CONTRACT ADMINISTRATION DATA

The purpose of the modification is to administratively revise the title of Section G-5 without any impact to the negotiated cost and schedule of the Contract. Accordingly, make the following revisions:

Delete:G-5 Instructions for Multiple Accounting Classification Citations

Payments under contract line items funded by multiple accounting classification citations shall be made from the earliest available fiscal year funding sources. The earliest assigned ACRN must be fully disbursed before making disbursements from a succeeding ACRN.

Replace with:G-5 Payment Instruction 252.204-0004 Line Item Specific: by Fiscal Year (SEP 2009)

Payments under contract line items funded by multiple accounting classification citations shall be made from the earliest available fiscal year funding sources. The earliest assigned ACRN must be fully disbursed before making disbursements from a succeeding ACRN.

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			CONTRACT NUMBER		PAGE OF PAGES	
					1 3	
2. AMENDMENT/CHANGE ACTION 100024		3. EFFECTIVE DATE 21-Nov-2011		4. REQUISITION PURCHASE PLAN NO. SEE SCHEDULE		5. PROJECT NO (if applicable)
6. ISSUED BY LARA CNO ATTN: (b)(6) 3701 S. FARM ROAD ARLINGTON VA 22201		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA SPECIAL PROGRAMS SOLUTION 14265 MIDWAY SUITE 459 ADDITION TX 75001		CODE S4802A
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP126 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.		
				9B. DATED (SEE ITEM 11)		
				X 10A. MOD OF CONTRACT/ORDER NO. HR0011-09-C-0096		
				X 10B. DATED (SEE ITEM 11) 29-Jun-2009		
CODE 04939		FACILITY CODE				
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS						
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offer. <input type="checkbox"/> rescheduled <input type="checkbox"/> when extended Offer 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)						
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 administrative CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT/ORDER NO. IN ITEM 10A)						
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: (AR 400.31B)						
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a)						
D. OTHER: (Specify type of modification and authority)						
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> 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 Control Number: jyeung12134 <div style="text-align: center;">(See Pages 2 and 3)</div>						
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 (b)(4)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)				
		TEL: (b)(6) EMAIL: (b)(6)				
15B. CO (b)(4)		15C. DATE SIGNED 11-21-11		16B. UNITED STATES OF AMERICA (b)(6)		16C. DATE SIGNED 11/21/11
(Signature of person authorized to sign)				(Signature of Contracting Officer)		

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of the modification is to revise Attachment No. 6 - LRASM-A Phase 2 Statement of Work with no impact on the total negotiated amount and schedule of the Contract. Accordingly, make the following revisions:

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

- Revise the description of Attachment No. 6 as follows:

Delete: Attachment No. 6 (revised) – LRASM-A Phase 2 Statement of Work, dated March 15, 2011 (18 pages)

Replace with: Attachment No. 6 (revised) – LRASM-A Phase 2 Statement of Work, dated November 21, 2011 (17 pages)

ATTACHMENT NO. 6 – LRASM-A PHASE 2 STATEMENT OF WORK

- A copy of the revised Attachment No. 6 is included as an enclosure to this Modification P00024.
- Attachment No. 6 is revised as follows:

- Under Paragraph 3.1.1.4 - Guidance, Navigation, and Control:

Delete: (b)(3):22 USC §2778(e) Sec 38(e)

Replace with: (b)(3):22 USC §2778(e) Sec 38(e)

- Under Paragraph 7.1 - RFS GFE Delivery Dates:

Delete: “Error! Reference source not found. establishes the GFE need dates to meet the LRASM-A schedule.”

Replace with: “Table 1 establishes the GFE need dates to meet the LRASM-A schedule.”

- Revise the due dates for the delivery of the CONOPS and Operational Effectiveness Analysis Report. Make the following changes to the “Other Reports and Deliverables” table currently appended on page 16 of the Statement of Work as follows:

Delete:

Title	Draft	Final	Update
CONOPS			3 weeks prior to CDR
Operational Effectiveness Analysis Report			4 weeks prior to CDR

Replace with:

Title	Draft	Final	Update
CONOPS	N/A	N/A	2 weeks prior to CDR
Operational Effectiveness Analysis Report	N/A	N/A	2 weeks prior to CDR

~ End ~

**STATEMENT OF WORK
FOR
LONG RANGE ANTI SHIP MISSILE (LRASM)
VARIANT A - AIR LAUNCHED

PHASE 2**

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1.0 Introduction

The purpose of this Statement of Work is to identify the requirements for Lockheed Martin (“Contractor”) to support the Defense Advanced Research Projects Agency (DARPA) in the Long Range Anti-Ship Missile (LRASM) program for an air launched flight demonstration of LRASM-A. The system to be developed under this Statement of Work (SOW) shall be referred to as “LRASM-A.”

The program is divided into two phases. Phase 1 culminated in a Preliminary Design Review (PDR) of a ship launched version. Phase 2 will complete a Critical Design Review (CDR) of the air launched version, and following Government approval of the CDR, will execute a flight test series of the air launched LRASM-A version. This SOW covers only the activity to be completed in Phase 2.

2.0 Supplies and Services

The Contractor shall furnish the necessary management, personnel, labor, services, documentation, materials, equipment, tools, facilities, and support services required to perform the tasks necessary to build, test, integrate, and demonstrate associated components for the development and demonstration of the LRASM-A prototype system in accordance with the provisions of this SOW and the contract.

Pre-CDR

Prior to CDR, the Contractor shall complete the detail design of the LRASM-A weapon system, and deliver the design except for specific COTS or MOTS items or subsystems not developed on this program as specified in Appendix A. The detail design drawings other than those specified in Appendix A shall be delivered in Contractor format on electronic media. The Contractor shall conduct demonstration and performance assessment of all subsystems through testing, simulation, or analogy as specified for each subsystem in this SOW. The Contractor shall conduct system operational effectiveness assessment relative to DARPA defined threats, scenarios, and environments. The Contractor shall develop and deliver design and transition support documentation as defined in this SOW. The Contractor shall execute long lead procurements as defined in Appendix B to support LRASM-A post-CDR test events. Any additional long-lead items to be procured prior to CDR must be approved by the DARPA program manager and COR via email concurrence to the Contractor’s POC.

The Contractor shall deliver the system detail design, 6DOF simulation source code, and all requested test and simulation data. The Contractor shall participate in Government Assessment Team (GAT) technical interchanges as necessary to support independent government assessment of LRASM-A capability.

Post-CDR

The Contractor shall complete the fabrication, integration, flight test qualification, and flight demonstration of no less than two LRASM-A weapons as specified in this SOW. Simulation, Hardware-in-the Loop (HWIL) testing, and captive carry testing shall be executed to verify system integration, provide risk reduction to flight test events, and conduct data collection for extrapolation to broader mission requirements. Operational effectiveness estimates will be updated based on test results. The Contractor shall develop and deliver design documentation as defined in this SOW. The Contractor shall procure, manufacture, assemble, and test the subsystems and test articles required to complete the flight tests.

The Contractor shall deliver the system as built detail design, interfaces, source code, and all test and simulation data. The Contractor shall participate in GAT technical interchanges as necessary to support independent government assessment of LRASM-A capability.

3.0 Detailed description of supplies and services

3.1 *Pre-CDR*

3.1.1 Flight Vehicle

Prior to CDR, the Contractor shall perform the necessary activities to complete the design of the flight vehicles, to include the following tasks:

3.1.1.1 *Propulsion*

The Contractor shall complete the detail design of the propulsion subsystem. The Contractor shall assess the performance of the propulsion subsystem and provide the analysis report electronically in mutually agreeable format.

DARPA and the Contractor agree to use the alternator as is from JASSM ER design for LRASM-A.

The contractor shall complete a detail design of the fuel system modifications that will be required to provide space for the RF sensor (RFS).

The Contractor shall develop any long lead tooling required for the manufacture of the propulsion and fuel systems. The Contractor shall order long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.2 *Payload*

The Contractor shall complete the detail design of the tactical warhead and fuze, and of the inert configuration to be used for Phase 2 flight tests. The Contractor shall develop any long lead tooling required for the manufacture of the inert warhead. The Contractor shall order long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.3 *Airframe*

The Contractor shall complete the detail design of the airframe. The Contractor shall assess the performance of the airframe through scaled wind tunnel testing and dynamic structural analysis and testing. All analysis reports and test reports along with requested test data, shall be provided electronically in Contractor format.

Requirements for weight and balance limits as well as test unique equipment such as telemetry and flight termination subsystems shall be accommodated in the design.

The Contractor shall develop any long lead tooling required for the manufacture of the airframe. The Contractor shall order the long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.4 *Guidance, Navigation, and Control*

(b)(3) 22 USC §2778(e) Sec 38(e)

(b)(3).22 USC §2778(e) Sec 38(e)

3.1.1.5 Airborne Test Equipment

The Contractor shall complete the detail design of the Telemetry System (TMS). The Contractor shall assess and test the performance of the TMS as necessary to complete flight and range qualification.

The Contractor shall provide detailed technical information on the JASSM-ER Flight Termination System (FTS) and support the range safety approval process at Point Mugu.

The Contractor shall develop any long lead tooling required for the manufacture of the TMS. The Contractor shall order the long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.2 Systems Engineering

The Contractor shall refine and maintain system requirements, including traceability to component specifications, in a DOORS database and requirements verification matrix. The Contractor shall finalize the CONOPS. The Contractor shall develop and fully implement tactics to maximize mission effectiveness, including autonomous dynamic routing, threat avoidance, altitude control, threat response, defensive features, and terminal weaponeering.

The Contractor shall support DARPA and the USN in the process of defining and designing the system protection requirements for LRASM-A. The design activity will be dependent on the definition derived with DARPA and USN. To the extent that the design requirements are defined in the first 3 months of the contract and they are non-intrusive changes to items already being designed or modified they will be incorporated. Extensive changes or changes requested after the system design is underway may require scope changes to the contract.

The Contractor shall complete the detail design of the integrated system and present the design at a CDR. The Contractor shall develop and deliver weapon external ICDs and internal subsystem ICDs to at least WBS level three. The Contractor shall demonstrate and assess the performance of the integrated system by system level multispectral signature modeling, end-to-end closed-loop 6-DOF simulation, integrated HWIL simulation, RCS pole model measurement, and captive carry testing of the avionics suite. All requested test data and analysis reports shall be provided electronically in Contractor format. The Contractor shall develop and deliver a fully populated aerodynamic model in a 6-DOF simulation, and shall provide updated range and performance assessments. The simulation source code shall be provided electronically in Contractor format.

The Contractor shall develop a HWIL simulation. The HWIL shall simulate external interfaces where practical and record hardware and software response from inserted subsystems or subsystem simulators. All requested test data and analysis reports shall be provided electronically in Contractor format.

The Contractor shall deliver a Critical Design Report consisting of the Critical Design Review presentation and the detail design drawing package. The Contractor shall deliver updates to the System Specification, Concept of Operations (CONOPS), and Operational Effectiveness Report (OER). The OER shall use the reliability predictions from Phase 1 as no reliability predictions are part of Phase 2 activity.

3.1.3 Systems Test and Evaluation

The Contractor shall perform the necessary activities to conduct system testing, to include the following tasks:

The Contractor shall execute scaled wind tunnel testing of the system. The Contractor shall provide a wind tunnel test plan, all requested test data, and a post-test report electronically in Contractor format.

The Contractor shall develop a captive carry capability for the missile avionics suite. The captive carry unit shall include representative prototypes of all GNC hardware and software. Captive carry testing shall be completed over representative missile trajectories in operationally representative environments, including cooperative military targets and targets of opportunity to the extent possible within flight safety allowances. Prior to CDR, the Contractor shall conduct at least one captive carry test that demonstrates the integrated avionics suite operation. The Contractor shall provide a captive carry test plan, all requested test data, and post-test report for each captive carry series electronically in Contractor format.

The Contractors shall conduct a RCS pole model test of the entire missile body with all tactical external features included.

The Contractor shall deliver an updated Test and Evaluation Master Plan (TEMP). The TEMP shall include summary of all testing completed to date, preliminary test planning for all post-CDR events, as well as anticipated certification testing required in EMD to achieve IOC.

3.2 Post-CDR

3.2.1 Flight Vehicle

The Contractor shall perform the necessary activities to complete and manufacture flight vehicles, to include the following tasks:

3.2.1.1 Propulsion

The Contractor shall fabricate and test any tooling required for the manufacture of the propulsion system. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an Acceptance Test Procedure (ATP) approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.2 Payload

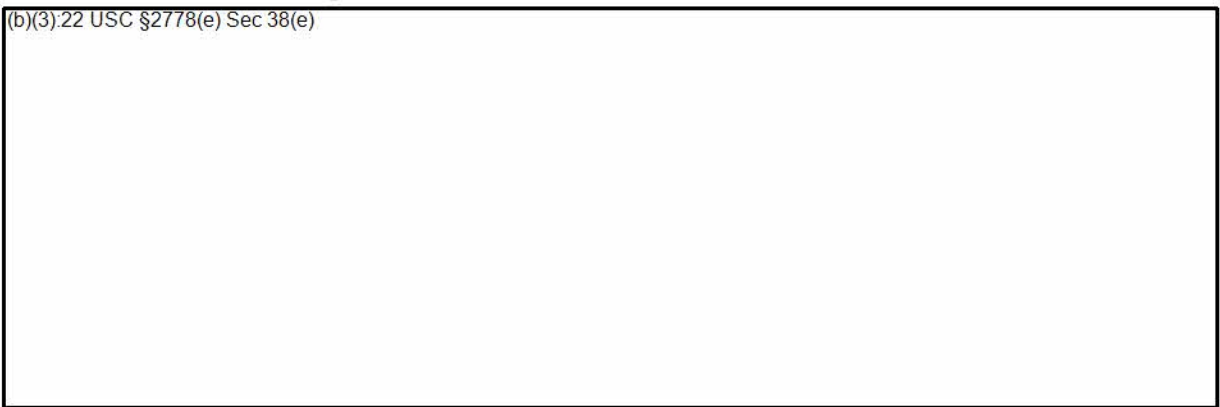
The Contractor shall fabricate and test any tooling required for the manufacture of the inert warhead. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.3 Airframe

The Contractor shall fabricate and test any tooling required for the manufacture of the airframe. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.4 Guidance, Navigation, and Control (GNC)

(b)(3)22 USC §2778(e) Sec 38(e)



3.2.1.5 Airborne Test Equipment

The Contractor shall fabricate and test any tooling required for the manufacture of the TMS and FTS. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.6 Integration, Assembly, Test and Checkout

The Contractor shall integrate all subsystems and components into the flight vehicles. The Contractor shall complete Pre-Flight Certification Testing (PFCT) of each flight vehicle. All test data and PFCT reports shall be provided electronically in Contractor format.

3.2.2 Range Safety Coordination

The Contractor shall develop the mission plan for each flight test and coordinate the plan with the Range Safety Officer (RSO) at Point Mugu.

3.2.3 Systems Engineering

The Contractor shall complete the verification matrix of requirements. The Contractor shall maintain the specification tree, requirements database, and verification matrix.

The Contractor shall conduct end-to-end 6-DOF Monte-Carlo simulation and performance predictions at least four weeks prior to each flight test event and present the data at the Test Readiness Review (TRR) for each event. The Contractor shall compile mission success statistics and conduct failure analysis of identified failure modes. All data and test reports shall be provided electronically in Contractor format.

The Contractor shall utilize the HWIL facility to demonstrate system integration, resolve integration issues, demonstrate end-to-end mission simulation prior to flight test events, and evaluate system performance against the system specification.

The contractor shall support Systems Integration Lab (SIL) testing at the Boeing B-1 SIL prior to each flight test (unless there are no software changes).

The Contractor shall conduct captive carry tests of a fully integrated avionics suite to demonstrate and assess system performance, and to collect data against representative targets to verify and improve the end-to-end 6-DOF simulation and subsystem performance.

The Contractor shall conduct comparative analysis after each test event using the 6-DOF monte carlo simulation and test event telemetry. Any significant deviation will be assessed for cause and performance implications. A Failure Review Board (FRB) shall be convened to determine root cause and corrective action for any significant deviation from expected performance. Corrective actions and system refinement for mission critical items will be implemented prior to subsequent test events requiring that system attribute. The comparative analysis and FRB status shall be documented in the test report. The GAT and DARPA will participate in the FRB process. All data and test reports shall be provided electronically in Contractor format.

Following the final demonstration event, the Contractor shall support final system effectiveness assessments by the GAT. The Contractor shall deliver updates to the System Specification.

The Contractor shall deliver any updates to the detail design drawings delivered prior to CDR. The Contractor shall deliver the final versions of the missile OFP and GNC source code.

3.2.4 Systems Test and Evaluation

The contractor will conduct two flight tests in Phase2 that will incrementally demonstrate the missile's capability to launch from a B1-B, navigate to the target area, find the target, and defeat the target. Both flights will be conducted at the Point Mugu Sea Range (PMSR).

The Contractor shall execute a free flight transition test (FFTT) demonstrating the ability of the weapon to transition from captive carriage on the B1-B to controlled free flight with engine running. Secondary objectives of the FFTT shall include target acquisition and track, receipt of in flight target updates (IFTUs) using the WDL, autonomous ingress to the target (as permitted by the range), terminal guidance to the target, and transmission of bomb hit indication (BHI) information over the WDL. The test plan shall be provided to DARPA in Contractor format for approval, and the test report shall be delivered to the GAT electronically in Contractor format.

The Contractor shall execute a final end-to-end integrated flight demonstration (IFD) of LRASM-A system capabilities. Primary objectives of the IFD shall include target acquisition and track, receipt of IFTUs using the WDL, autonomous ingress to the target (as permitted by the range), terminal guidance to the target, and transmission of BHI information over the WDL, followed by target impact. The test plan shall be provided to DARPA in Contractor format for approval, and the test report shall be delivered electronically in Contractor format.

The Contractor shall conduct four Missile Avionics Simulators (MAS) flight tests events to reduce risk for the sensor suite and avionics and rehearse the FTTT and IFD. The last two MAS flight test events will be conducted at PMSR and will include flights against the same targets that will be included in the IFD.

The Contractor shall electronically transfer to the GAT the decrypted and decommutated telemetry data from each flight test NLT 5 working days after the Contractor receives the tapes in Orlando.

3.2.5 Auxiliary Equipment

The Contractor shall fabricate and test any auxiliary equipment required for system fabrication, integration, PHST, and flight test. The Contractor shall procure, fabricate, and test items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

4.0 Period of Performance

The period of performance for Phase 2 shall be 26 months.

5.0 Program Management

5.1 Program Management

The Contractor shall provide the managerial oversight and direction for the program. This will include planning, financial reporting, security, personnel, subcontract management and administration, procurement, production management, product assurance (quality), and technical direction. The Contractor shall manage all subcontracts.

The Contractor shall deliver a level four Work Breakdown Structure (WBS) and Integrated Master Schedule (IMS).

5.2 Master Schedule and Reports

The Contractor shall appoint a Program Manager to provide overall program direction with authority for technical, personnel, and all other resource allocations. The Contractor shall deliver a master plan and IMS. The Contractor shall provide monthly reports identifying any tasks that are behind schedule and reporting expenditures by WBS.

5.3 Technical Reviews

The Contractor shall conduct at least three In-Process Reviews (IPR) (approximately quarterly) and a Critical Design Review (CDR) at its Orlando facilities. IPRs will be no more than two day events covering recent and pending Phase 2 test events and review of the design status. Test Readiness Reviews (TRR) will be one day events at the Contractor facilities for all test events defined in the TEMP (teleconference will be made available for unclassified portions if requested).

The CDR shall cover the following items:

- a) Program Overview and CONOPs review
- b) Requirements, interfaces, and TPMs
- c) Requirements flowdown and allocation
- d) System detail design review
- e) System simulation results
- f) Developmental test results
- g) Operational effectiveness assessment
- h) Safety
- i) Hardware, software, and support equipment
- j) Risk/opportunity management
- k) Phase 2 schedule review

The Contractor shall conduct TRRs for the test activities defined in this SOW at its Orlando facilities.

The TRRs shall cover the following items:

- a) Test overview - Include test objective/purpose, description, time, and location
- b) Test team - Identify test conductor and support team
- c) Test pass/fail criteria
- d) Test matrix and/or test schedule
- e) Test set-up/configuration
- f) Test predictions
- g) Identification of first time events
- h) Instrumentation
- i) Hardware pedigree
- j) Testing history
- k) Software pedigree
- l) Support equipment and spares
- m) Test procedures
- n) Safety issues/concerns
- o) Facilities
- p) Open items list (to include open action items from previous reviews)
- q) Risk assessment
- r) Action items, including identification of those actions items which must be completed prior to test commencement

5.4 Methods of Communication

The Contractor shall participate in weekly telecons with DARPA and the GAT, maintain the unclassified SharePoint site, utilize public key infrastructure encryption for unclassified FOUO email, and maintain the encrypted classified data links to DARPA and JHU/APL.

6.0 Safety

The Contractor shall prepare the source data and develop the application for Interim Hazard Classifications for any hardware containing explosives or fuels for shipping authority. The Contractor shall deliver updates to the System Safety Hazard Assessment (SSHA) as required.

7.0 Requirements for the DARPA GFE RFS and RFS Contractor

7.1 RFS GFE Delivery Dates

The RFS will be provided as GFE. The RFS will be developed by DARPA under a direct contract to DARPA's RFS Contractor (DRC). The Contractor shall assist DARPA with technical monitoring of the DRC. Table 1 establishes the GFE need dates to meet the LRASM-A schedule. Any delay in the deliverables may result in a cost and schedule impact to the Contractor. Table 2 delineates the specification and interfaces the RFS GFE is required to meet as part of the overall LRASM-A system. To the extent that the RFS system does not meet the specification, then it may have a flowdown effect on the LRASM capability. Additional specification and interface requirements are listed in classified Appendix C. There are some requirements identified as TBD in the documents that the Contractor and DRC have to define during the first 4 months after contract award (see Table 1, Item 4). It is anticipated that the Contractor and the DRC will need to meet periodically as defined in Table 1, Items 2, 3, 4, 5, 6, and 13 to accomplish the task of defining the TBDs and verifying ICD accuracy.

Table 1. RFS Delivery Schedule

Item	Date	Milestone	Responsibility and/or Objective(s)
1	2 weeks ARO	Kickoff /specification meeting at RFS supplier	DARPA
2	4 months ARO	Technical meeting	DARPA
3	6 months ARO	Technical meeting	DARPA
4	2.5 months ARO	Technical meeting /TBDs defined in specification and ICDs	Contractor/DARPA
5	8 months ARO	Technical meeting	DARPA
6	10 months ARO	Technical meeting	DARPA
7	3 months ARO first update. Incremental thereafter when updates occur. Final with RFS CDR material delivery (Item 16)	Updated RFS simulation code	DARPA
8	9 months ARO	Deliver RFS HIL&MAS prototype and HIL integration support	DARPA
9	9 months ARO	Contractor provide MAS pod to DRC	Contractor
10	11 months ARO	Install and calibrate aperture in MAS pod	DARPA
11	12 months ARO	MAS integration	Contractor/DARPA
12	13 Months ARO	MAS flight event	Contractor/DARPA
13	10 months ARO	Technical meeting	DARPA
14	13 months ARO	Fit check model delivered	DARPA

Table 1. RFS Delivery Schedule

Item	Date	Milestone	Responsibility and/or Objective(s)
15	14 months ARO	Support aperture calibration test	DARPA
16	14 months ARO	RFS CDR materials delivered	DARPA
17	15 months ARO	MAS flight event	Contractor/DARPA
18	1 month after CDR	1st RFS Delivery	Orlando, FL
19	2 months after CDR	2nd RFS Delivery	Orlando, FL
20	3 months after CDR	3rd RFS Delivery	Orlando, FL
21	3 months after CDR	MAS Flight Event	TBD
22	5 months after CDR	MAS Flight Event	Pt Mugu
23	8 months after CDR	MAS Flight Event	PT Mugu
24	6 months after CDR	FFF Event	Pt Mugu
25	10 months after CDR	IFD Event	Pt Mugu

Table 2. RFS Specification and Interface Requirements

Document Number	Title
797219021	Performance Specification, RF Sensor (RFS)
797219022	Mechanical ICD
797219023	RFS Communications Interface Control Document
797219024	RFS Electrical Interface Control Document

7.2 Phase 2 Additional Required Deliverables Description

7.2.1 System Simulation Support

The DRC shall provide updates to the RFS simulation source code, models and/or RFS algorithm performance emulators provided from BAE Systems in Phase 1 to support the Contractor's system level simulation analysis (need dates as shown in Table 1, Item 7).

7.2.2 Aperture Development - AUR

The DRC shall support Lockheed Martin in the development of the RFS aperture by reviewing/commenting on the Contractor's All Up Round (AUR) aperture design and placement and supporting the maintenance of the interface control documents.

7.2.3 Aperture Development - MAS

The DRC shall support the Contractor in the development of the Missile Avionics Simulator (MAS) aperture by selecting, procuring, installing, and calibrating the COTS aperture on the MAS test bed IAW Table 1, Item 9/10.

7.2.4 Hardware in the Loop (HIL)

The DRC shall provide a prototype RFS for use in the Contractor's HIL in Orlando, FL IAW Table 1, Item 8. The prototype RFS shall provide representative functionality of the system, but is not required to meet the form, fit, and environmental requirements. The DRC shall provide 3 one week support activities to the Contractor in Orlando, FL to support the integration of the Contractor's HIL. The same unit shall be usable in the MAS (See below).

The DRC shall also provide 3 one week support activities to the Contractor in Orlando, FL to support the integration and testing of each delivered RFS on the Contractor's HIL. The 3 one week support activities shall be commensurate with each of the 3 RFS deliveries (Table 1 items 18, 19, and 20).

7.2.5 Missile Avionics Simulator (MAS)

The DRC shall support the initial MAS integration in Orlando, FL. The DRC shall be in place with knowledgeable technicians and engineers to support the integration activity for at least 3 weeks (See Table 1, Item 11). The DRC shall support all five MAS operations identified in Table 1 by reviewing the test plans for each mission and reviewing the data collected. One test flight is expected prior to CDR. A report detailing the RFS data analysis and results from each MAS test is due NLT 3 weeks after the mission. The estimated schedule for the MAS flight events is shown in Table 1, Items 11, 12, 21, 22 and 23.

7.2.6 Aperture Development Support

The DRC shall support the Contractor in the calibration of the aperture if required. The DRC shall review test plans and test set-up to ensure calibration is of the type and accuracy required by DRC. The testing will be conducted in Orlando, FL IAW Table 1, Item 15.

7.2.7 Fit Model

The DRC shall provide form and fit mass simulator for use in fit check and assembly test at the Contractor's facility in Troy, AL as defined in Table 1, Item 14. The DRC shall provide updated form and fit mass simulator for use in fit check and assembly test at Troy, AL if changed from the pre-CDR unit.

7.2.8 CDR

The DRC shall support the LRASM-A system level CDR with required documentation and viewgraphs of the design and analysis of the RFS. The data shall be provided in accordance with Table 1, Item 16.

7.2.9 Flight Test Support

The DRC shall support the two flight operations by reviewing the test plan for each mission and reviewing the data collected. A report detailing the RFS data analysis and results is due NLT 3 weeks after each mission. The estimated schedule for the flight test is shown in Table 1, Items 24 and 25.

OTHER REPORTS AND DELIVERABLES

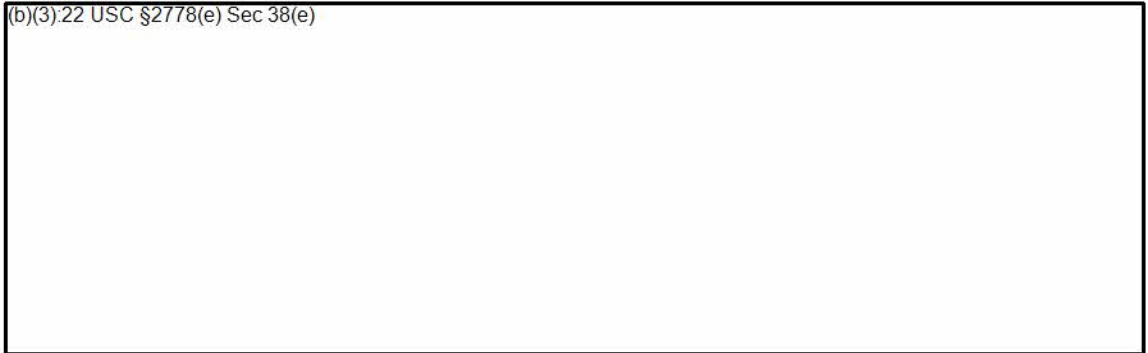
Title	Draft	Final	Update
Contract Work Breakdown Structure for Phases 2a and 2b		30 days ACA	
Master Plan and Integrated Master Schedule for Phase 2		30 days ACA	Monthly
CONOPS			2 weeks prior to CDR
Test and Evaluation Master Plan			4 weeks prior to CDR
System Safety Hazard Assessment			4 weeks prior to CDR
Interim Hazard Classification Data			4 weeks prior to CDR
LRASM-A Air-Launched System Specification			4 weeks prior to CDR and 4 weeks prior to IFD
LRASM-A detail design drawings, interface specifications, and Critical Design Report	4 weeks prior to CDR	2 weeks after CDR	With final report
Operational Effectiveness Analysis Report			2 weeks prior to CDR
Test Plan		60 days prior to each test event	
Test Report		30 days after each test event	
OFP and GNC software	4 weeks prior to CDR	With final report	
Final Report		30 days after the IFD	

Appendix A

This Appendix defines the drawings that will not be provided to the Program Office (DARPA) as part of the design drawing package. There are three categories of drawings to be excluded from the drawing package:

- A. Drawings of commercial parts such as screws, washers, nuts, adhesives, glues, etc. will be referenced in the parts list of the design drawing but no detail specification or drawing of these items shall be provided.

B. (b)(3) 22 USC §2778(e) Sec 38(e)



- C. Commercial Off the Shelf (COTS) subsystems such as the Altimeter, IMU, Weapon Data Link components not developed for LRASM-A, telemetry system components, and flight termination components.

Appendix B

This appendix lists all the items to be purchased prior to CDR in order to support the testing in Phase 2. The list is divided into two pieces. The lists are in the form of a embedded Excel® files for ease of use: File JASSM Common.xlsx. Sheet 1 contains the list of JASSM common parts that will be acquired in a combined purchase with JASSM procurement. Sheet 2 is a list of parts that are not specifically quantified but will be before CDR and will need to be purchased in order to meet Phase 2 test schedule.

(b)(3) 22 USC §2778(e) Sec 38(e)



AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. P00025		3. EFFECTIVE DATE 11-Apr-2012		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO: (b)(6) ATTN: (b)(6) 3701 N FAIRFAX DR ARLINGTON VA 22203-1714		CODE HR0011		7. ADMINISTERED BY (If other than item 5) DCMA SPECIAL PROGRAMS SOUTH 14285 MIDWAY SUITE 450 ADDISON TX 75001		CODE S4802A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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)							
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.							
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).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a)							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jyeung12777							
(See Page 2)							
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 (b)(4)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
15B. (b)(4)				16B. (b)(6)			
15C. DATE SIGNED 4-11-12				16C. DATE SIGNED 4/11/12			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

The purpose of this modification is to increase the overtime premium from \$50,000.00 to \$100,000.00 without any impact on the negotiated cost and fee of the Contract. Accordingly, make the following change:

SECTION I - CONTRACT CLAUSES

- In paragraph (a) of FAR 52.222-2 - Payment for Overtime Premiums, replace "50,000.00" with "\$100,000.00." The following updated FAR 52.222-2 is incorporated into the Contract by full text:

52.222-2 PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed **\$100,000.00** or the overtime premium is paid for work --

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall--

(1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

* Insert either "zero" or the dollar amount agreed to during negotiations. The inserted figure does not apply to the exceptions in paragraph (a)(1) through (a)(4) of the clause.

(End of clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U		PAGE OF PAGES 1 7	
2. AMENDMENT/MODIFICATION NO. P00026		3. EFFECTIVE DATE 14-May-2012		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO.(If applicable)	
6. ISSUED BY DARPA CMO ATTN: (b)(6) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA SPECIAL PROGRAMS SOUTH 14285 MIDWAY SUITE 450 ADDISON TX 75001		CODE S4802A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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) See Schedule							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/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. FAR 52.243-2 (Alt V) and FAR 43.103 (a)							
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).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: cglista12846 See page 2.							
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 (b)(4)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
				TEL: (b)(6)		EMAIL: (b)(6)	
15B. (b)(4)		DATE SIGNED 5/14/12		16B. UNITED STATES OF AMERICA BY _____		16C. DATE SIGNED	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

This modification issues an unpriced change order for additional effort, that falls within the general scope of the existing contract associated with the following tasks:

- Task 1 – Additional Captive Carry Testing and Data Analysis
- Task 2 – Flight Testing of the Spare Missile
- Task 3 – Technical Support of the RF Sensor Development
- Task 4 – Altimeter Flight Testing at Tactical Altitudes and Speeds
- Task 5 – Design, Fabrication and Testing of RF Sensor Antennas
- Task 6 – Thermal Testing of the RF Sensor Cooling System with a Functional RF Sensor
- Task 7 – Environmental Testing of Missile Avionics
- Task 8 – Documentation of Higher Levels of System Protection
- Task 9 – Mechanical Design of Missile Modifications Required for Vertical Launch

These tasks shall be performed in accordance with Attachment 8 – Phase 2 Risk Reduction Enhancements, dated May 8, 2012, provided with this modification.

ADDITIONALLY, the Contractor shall provide additional effort in support of the following tasks which are currently part of the Phase 2 SOW (Attachment 6):

- Additional Elevation Angles for RCS Testing (Attachment 6 paragraph 3.1.3) – the additional effort will cover extended testing at a larger range of body angles to enable more robust system effectiveness modeling
- Enhanced RF Sensor Simulation Interface (Attachment 6 paragraph 3.1.1.4) – the additional effort provides for additional labor associated with this task.

The Contractor shall provide a cost (change) proposal reflecting the increase to the total CLIN 0002 estimated cost-plus-fixed-fee, by no later than July 9, 2012. The proposal shall be prepared as follows:

- a. The Contractor shall provide a detailed, fully disclosed cost proposal in accordance with FAR 52.215-21. The change proposal shall include, at a minimum, the information listed below:
 1. Cost proposal coversheet as called for by Table 15-2(I)(A) – See FAR 15.408.
 2. Cost buildup formatted as stipulated at Table 15-2(III)(B) “Change Orders, Modifications, and Claims.”
 3. New and/or updated CLIN 0002 written Basis of Estimates (BOE) providing labor and material judgmental factors used to develop the revised proposal (if changes are reflected as updates to the BOE’s submitted during contract negotiations – all updates shall be highlighted).
 4. New and/or updated priced Bill-of-Material (BOM) (if changes are reflected as updates to the BOM submitted during contract negotiations – all updates shall be highlighted).
 5. New and/or updated subcontract proposals. Subcontract proposals shall follow the guidance provided herein for the prime contractor to the extent applicable.

Definitization of this Unpriced Change Order shall take place within 90 days after the effective date of this modification. The Parties agree that any equitable adjustment resulting from this Change Order shall not exceed \$17,204,142

Accordingly, the following changes are made to the Contract:

SUMMARY OF CHANGES

SECTION A - SOLICITATION/CONTRACT FORM

1. The total cost of this contract was increased by (b)(4)

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0002

2. The estimated/max cost has increased by (b)(4)

3. The cost constraint NTE* has been added.

4. The total cost of this line item has increased by (b)(4)

* NTE = Not to Exceed. The fixed fee for CLIN 0002 remains (b)(4) This amount is subject to upward adjustment pending the outcome of negotiations for this Unpriced Change Order.

5. SUBCLIN 000206 is added as follows:

<u>ITEM NO</u>	<u>SUPPLIES/SERVICES</u>	<u>ESTIMATED COST</u>	<u>FIXED FEE</u>	<u>TOTAL EST. COST PLUS FIXED FEE</u>
000206	Funding for CLIN 0002 CPFF Funding for CLIN 0002 FOB: Destination AO No. Z907/08/09	\$0.00	\$0.00	\$0.00
	ACRN AG			\$8,602,071.00

SECTION F - DELIVERIES OR PERFORMANCE

6. The following Delivery Schedule item for CLIN 0002 has been changed from:

<u>DELIVERY DATE</u>	<u>QUANTITY</u>	<u>SHIP TO ADDRESS</u>	<u>UIC</u>
POP 13-DEC-2010 TO 15-FEB-2013	N/A	OFFICE OF NAVAL RESEARCH GIL GRAFF 875 N. RANDOLPH STREET ONR CODE 35 ARLINGTON VA 22203 703-588-0703 FOB: Destination	N00014

To:

<u>DELIVERY DATE</u>	<u>QUANTITY</u>	<u>SHIP TO ADDRESS</u>	<u>UIC</u>
----------------------	-----------------	------------------------	------------

POP 13-DEC-2010 TO N/A
13-SEP-2013

OFFICE OF NAVAL RESEARCH
GIL GRAFF
875 N. RANDOLPH STREET
ONR CODE 35
ARLINGTON VA 22203
703-588-0703
FOB: Destination

N00014

7. The following have been modified (changes in bold):

F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through **September 13, 2013.***

** An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).*

F-2 Reports and Other Deliverables

Delivery of all reports and other deliverables shall be made to the addressee specified in F-3 entitled "Report Distribution" in accordance with the following:

<u>CLIN</u>	<u>Description</u>	<u>Due Date</u>
0001	R&D Status Report	On a monthly basis, within fifteen (15) days after the end of the previous reporting month
0001	Final Technical Report for Phase 1	Upon completion of Phase 1
0001	Additional Miscellaneous Data Deliverables	See Attachment No. 1 – Phase 1 Statement of Work
0002	R&D Status Report	On a monthly basis, within fifteen (15) days after the end of the previous reporting month
0002	Final Technical Report for Phase 2	Upon completion of Phase 2
0002	Additional Miscellaneous Data Deliverables	See Attachment No. 6 – Phase 2 Statement of Work and Attachment No. 8 – Statement of Work for Phase 2 Risk Reduction Enhancements

F-3 Report Distribution

- (a) DARPA/Tactical Technology Office (TTO)
ATTN: **Artie Mabbett**
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: **arthur.mabbett@darpa.mil**
(one copy of every report and deliverable)

- (b) DARPA/Tactical Technology Office (TTO)
ATTN: Assistant Director, Program Management (ADPM)
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: adpm-tto@darpa.mil
(one copy of the R&D Status Reports and Final Reports for Phases 1 and 2)
- (c) Gil Graff, Contracting Officer's Representative
Office of Naval Research
One Liberty Center
875 North Randolph Street
Arlington, VA 22203-1915
Email: Gil.Graff@navy.mil
(one copy of every report and deliverable)
- (d) DARPA/Library
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: gil.graff@navy.mil
(one copy of the Final Reports for Phases 1 and 2)
- (e) Defense Technical Information Center
 - (1) Email: TR@dtic.mil
(one electronic copy of the Final Reports for Phases 1 and 2, if unclassified)
OR
 - (2) Attn: DTIC-BCS
8725 John J. Kingman Road, Suite 0944
Fort Belvoir, VA 22060-0944
(two hard copies of the Final Reports for Phases 1 and 2, if unclassified)
- (f) DARPA/Contracts Management Office (CMO)
ATTN: (b)(6)
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: reportscg@darpa.mil
(one copy of the R&D Status Reports and Final Reports for Phases 1 and 2)

Note 1: (a) through (f) – submissions of unclassified materials only. Submission of classified material shall be coordinated through DARPA SID and/or Artie Mabbett, DARPA Program Manager, in accordance with the DD 254, as applicable.

Note 2: For the Final Technical Report(s), the Contractor must also comply with the distribution requirements of DFARS 252-235-7011, as applicable.

SECTION G - CONTRACT ADMINISTRATION DATA

8. The Accounting and Appropriation data is modified as follows:

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by \$8,602,071.00 from \$73,722,500.00 to \$82,324,571.00.

SUBCLIN 000206:

Funding on SUBCLIN 000206 is initiated as follows:

ACRN: AG

CIN: 00000000000000000000000000000000

Acctng Data: 1711319 W3DJ 255 RA353 0 068342 2D 000000 02911000LN80 068342 AA

Increase: \$8,602,071.00

Total: \$8,602,071.00

SECTION I - CONTRACT CLAUSES

9. The following have been added by full text:

52.216-24 LIMITATION OF GOVERNMENT LIABILITY (APR 1984)

(a) In performing this contract, the Contractor is not authorized to make expenditures or incur obligations exceeding \$90,926,642 dollars.

(b) The maximum amount for which the Government shall be liable if this contract is terminated is \$90,926,642 dollars.

(End of clause)

252.217-7027 CONTRACT DEFINITIZATION (OCT 1998)

(a) An unpriced change order is contemplated. The Contractor agrees to begin promptly negotiating with the Contracting Officer the terms of a definitive contract that will include (1) all clauses required by the Federal Acquisition Regulation (FAR) on the date of execution of the undefinitized contract action, (2) all clauses required by law on the date of execution of the definitive contract action, and (3) any other mutually agreeable clauses, terms, and conditions. The Contractor agrees to submit a cost-plus-fixed-fee proposal and cost or pricing data supporting its proposal.

(b) The schedule for definitizing this contract is as follows.

The Contractor shall provide its proposal no later than July 16, 2012. Negotiations will commence upon receipt of the fully qualifying proposal. Negotiations shall conclude by the earlier of:

(1) August 16, 2012; or

(2) The date on which the amount of funds obligated under this change order is equal to more than 50 percent of the not-to-exceed price.

(c) If agreement on a definitive contract action to supersede this undefinitized contract action is not reached by the target date in paragraph (b) of this clause, or within any extension of it granted by the Contracting Officer, the Contracting Officer may, with the approval of the head of the contracting activity, determine a reasonable price or fee in accordance with subpart 15.4 and part 31 of the FAR, subject to Contractor appeal as provided in the Disputes clause. In any event, the Contractor shall proceed with completion of the contract, subject only to the Limitation of Government Liability clause.

(1) After the Contracting Officer's determination of price or fee, the contract shall be governed by--

(i) All clauses required by the FAR on the date of execution of this undefinitized contract action for either fixed-price or cost-reimbursement contracts, as determined by the Contracting Officer under this paragraph (c);

(ii) All clauses required by law as of the date of the Contracting Officer's determination; and

(iii) Any other clauses, terms, and conditions mutually agreed upon.

(2) To the extent consistent with paragraph (c)(1) of this clause, all clauses, terms, and conditions included in this undefinitized contract action shall continue in effect, except those that by their nature apply only to an undefinitized contract action.

(d) The definitive contract resulting from this undefinitized contract action will include a negotiated cost-plus-fixed-fee ceiling in no event to exceed \$90,926,642.

(End of clause)

Section J - List of Documents, Exhibits and Other Attachments

10. The following have been modified (changes in bold):

- Attachment No. 1 (revised) - Statement of Work entitled, "Long Range Anti-Ship Missile (LR-ASM) Demonstration Program, Phase I, dated October 29, 2009" (9 pages)
- Attachment No. 2 - Contracting Officer's Representative (COR) Designation Memorandum, dated June 9, 2009 (3 pages)
- Attachment No. 3 - Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software, Revision 1, dated November 11, 2010 (8 pages)
- Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs, dated May 18, 2009, as amended on June 15, 2009 (3 pages)
- Attachment No. 5 - Revised Contract Security Classification Specification, DD Form 254, dated August 13, 2010 (5 pages)
- Attachment No. 6 - **LRASM-A Phase 2 Statement of Work, dated May 8, 2012 (17 pages)**
- Attachment No. 7 - Government Furnished Equipment/Property (GFE/GFP) List, dated April 14, 2011 (3 pages)
- Attachment No. 8 - **Statement of Work for Phase 2 Risk Reduction Enhancements, dated May 1, 2012 (4 pages)**

(End of Summary of Changes)

All other terms and conditions of Contract HR0011-09-C-0096 shall remain in full force and effect, except as modified herein.

**STATEMENT OF WORK
FOR
LONG RANGE ANTI SHIP MISSILE (LRASM)
VARIANT A - AIR LAUNCHED

PHASE 2**

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1.0 Introduction

The purpose of this Statement of Work is to identify the requirements for Lockheed Martin (“Contractor”) to support the Defense Advanced Research Projects Agency (DARPA) in the Long Range Anti-Ship Missile (LRASM) program for an air launched flight demonstration of LRASM-A. The system to be developed under this Statement of Work (SOW) shall be referred to as “LRASM-A.”

The program is divided into two phases. Phase 1 culminated in a Preliminary Design Review (PDR) of a ship launched version. Phase 2 will complete a Critical Design Review (CDR) of the air launched version, and following Government approval of the CDR, will execute a flight test series of the air launched LRASM-A version. This SOW covers only the activity to be completed in Phase 2.

2.0 Supplies and Services

The Contractor shall furnish the necessary management, personnel, labor, services, documentation, materials, equipment, tools, facilities, and support services required to perform the tasks necessary to build, test, integrate, and demonstrate associated components for the development and demonstration of the LRASM-A prototype system in accordance with the provisions of this SOW and the contract.

Pre-CDR

Prior to CDR, the Contractor shall complete the detail design of the LRASM-A weapon system, and deliver the design except for specific COTS or MOTS items or subsystems not developed on this program as specified in Appendix A. The detail design drawings other than those specified in Appendix A shall be delivered in Contractor format on electronic media. The Contractor shall conduct demonstration and performance assessment of all subsystems through testing, simulation, or analogy as specified for each subsystem in this SOW. The Contractor shall conduct system operational effectiveness assessment relative to DARPA defined threats, scenarios, and environments. The Contractor shall develop and deliver design and transition support documentation as defined in this SOW. The Contractor shall execute long lead procurements as defined in Appendix B to support LRASM-A post-CDR test events. Any additional long-lead items to be procured prior to CDR must be approved by the DARPA program manager and COR via email concurrence to the Contractor’s POC.

The Contractor shall deliver the system detail design, 6DOF simulation source code, and all requested test and simulation data. The Contractor shall participate in Government Assessment Team (GAT) technical interchanges as necessary to support independent government assessment of LRASM-A capability.

Post-CDR

The Contractor shall complete the fabrication, integration, flight test qualification, and flight demonstration of no less than two LRASM-A weapons as specified in this SOW. Simulation, Hardware-in-the Loop (HWIL) testing, and captive carry testing shall be executed to verify system integration, provide risk reduction to flight test events, and conduct data collection for extrapolation to broader mission requirements. Operational effectiveness estimates will be updated based on test results. The Contractor shall develop and deliver design documentation as defined in this SOW. The Contractor shall procure, manufacture, assemble, and test the subsystems and test articles required to complete the flight tests.

The Contractor shall deliver the system as built detail design, interfaces, source code, and all test and simulation data. The Contractor shall participate in GAT technical interchanges as necessary to support independent government assessment of LRASM-A capability.

3.0 Detailed description of supplies and services

3.1 *Pre-CDR*

3.1.1 Flight Vehicle

Prior to CDR, the Contractor shall perform the necessary activities to complete the design of the flight vehicles, to include the following tasks:

3.1.1.1 *Propulsion*

The Contractor shall complete the detail design of the propulsion subsystem. The Contractor shall assess the performance of the propulsion subsystem and provide the analysis report electronically in mutually agreeable format.

DARPA and the Contractor agree to use the alternator as is from JASSM ER design for LRASM-A.

The contractor shall complete a detail design of the fuel system modifications that will be required to provide space for the RF sensor (RFS).

The Contractor shall develop any long lead tooling required for the manufacture of the propulsion and fuel systems. The Contractor shall order long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.2 *Payload*

The Contractor shall complete the detail design of the tactical warhead and fuze, and of the inert configuration to be used for Phase 2 flight tests. The Contractor shall develop any long lead tooling required for the manufacture of the inert warhead. The Contractor shall order long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.3 *Airframe*


The Contractor shall complete the detail design of the airframe. The Contractor shall assess the performance of the airframe through scaled wind tunnel testing and dynamic structural analysis and testing. All analysis reports and test reports along with requested test data, shall be provided electronically in Contractor format.

Requirements for weight and balance limits as well as test unique equipment such as telemetry and flight termination subsystems shall be accommodated in the design.

The Contractor shall develop any long lead tooling required for the manufacture of the airframe. The Contractor shall order the long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.4 *Guidance, Navigation, and Control*

(b)(3).22 USC §2778(e) Sec 38(e)



(b)(3) 22 USC §2778(e) Sec 38(e)

3.1.1.5 Airborne Test Equipment

The Contractor shall complete the detail design of the Telemetry System (TMS). The Contractor shall assess and test the performance of the TMS as necessary to complete flight and range qualification.

The Contractor shall provide detailed technical information on the JASSM-ER Flight Termination System (FTS) and support the range safety approval process at Point Mugu.

The Contractor shall develop any long lead tooling required for the manufacture of the TMS. The Contractor shall order the long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.2 Systems Engineering

The Contractor shall refine and maintain system requirements, including traceability to component specifications, in a DOORS database and requirements verification matrix. The Contractor shall finalize the CONOPS. The Contractor shall develop and fully implement tactics to maximize mission effectiveness, including autonomous dynamic routing, threat avoidance, altitude control, threat response, defensive features, and terminal weaponeering.

The Contractor shall support DARPA and the USN in the process of defining and designing the system protection requirements for LRASM-A. The design activity will be dependent on the definition derived with DARPA and USN. To the extent that the design requirements are defined in the first 3 months of the contract and they are non-intrusive changes to items already being designed or modified they will be incorporated. Extensive changes or changes requested after the system design is underway may require scope changes to the contract.

The Contractor shall complete the detail design of the integrated system and present the design at a CDR. The Contractor shall develop and deliver weapon external ICDs and internal subsystem ICDs to at least WBS level three. The Contractor shall demonstrate and assess the performance of the integrated system by system level multispectral signature modeling, end-to-end closed-loop 6-DOF simulation, integrated HWIL simulation, RCS pole model measurement, and captive carry testing of the avionics suite. All requested test data and analysis reports shall be provided electronically in Contractor format. The Contractor shall develop and deliver a fully populated aerodynamic model in a 6-DOF simulation, and shall provide updated range and performance assessments. The simulation source code shall be provided electronically in Contractor format.

The Contractor shall develop a HWIL simulation. The HWIL shall simulate external interfaces where practical and record hardware and software response from inserted subsystems or subsystem simulators. All requested test data and analysis reports shall be provided electronically in Contractor format.

The Contractor shall deliver a Critical Design Report consisting of the Critical Design Review presentation and the detail design drawing package. The Contractor shall deliver updates to the System Specification, Concept of Operations (CONOPS), and Operational Effectiveness Report (OER). The OER shall use the reliability predictions from Phase 1 as no reliability predictions are part of Phase 2 activity.

3.1.3 Systems Test and Evaluation

The Contractor shall perform the necessary activities to conduct system testing, to include the following tasks:

The Contractor shall execute scaled wind tunnel testing of the system. The Contractor shall provide a wind tunnel test plan, all requested test data, and a post-test report electronically in Contractor format.

The Contractor shall develop a captive carry capability for the missile avionics suite. The captive carry unit shall include representative prototypes of all GNC hardware and software. Captive carry testing shall be completed over representative missile trajectories in operationally representative environments, including cooperative military targets and targets of opportunity to the extent possible within flight safety allowances. Prior to CDR, the Contractor shall conduct at least one captive carry test that demonstrates the integrated avionics suite operation. The Contractor shall provide a captive carry test plan, all requested test data, and post-test report for each captive carry series electronically in Contractor format.

The Contractors shall conduct a RCS pole model test of the entire missile body with all tactical external features included.

The Contractor shall deliver an updated Test and Evaluation Master Plan (TEMP). The TEMP shall include summary of all testing completed to date, preliminary test planning for all post-CDR events, as well as anticipated certification testing required in EMD to achieve IOC.

3.2 Post-CDR

3.2.1 Flight Vehicle

The Contractor shall perform the necessary activities to complete and manufacture flight vehicles, to include the following tasks:

3.2.1.1 Propulsion

The Contractor shall fabricate and test any tooling required for the manufacture of the propulsion system. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an Acceptance Test Procedure (ATP) approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.2 Payload

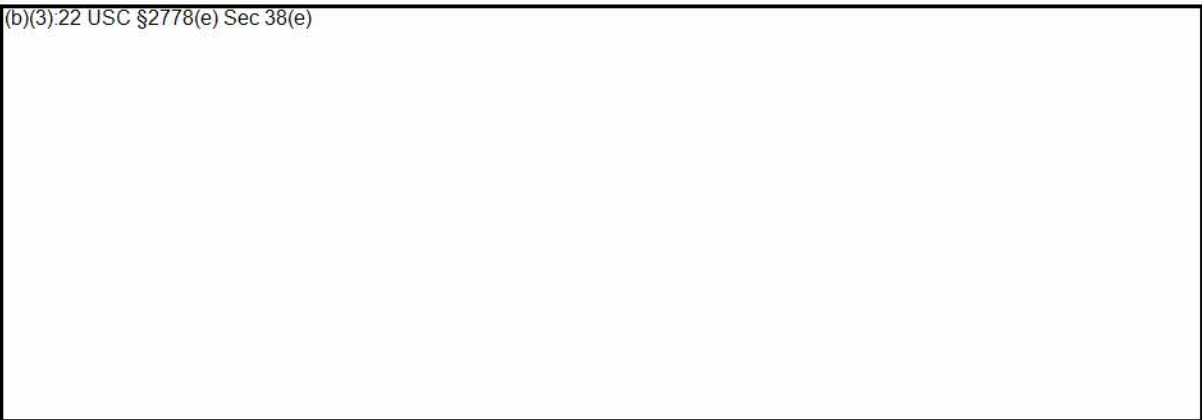
The Contractor shall fabricate and test any tooling required for the manufacture of the inert warhead. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.3 Airframe

The Contractor shall fabricate and test any tooling required for the manufacture of the airframe. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.4 Guidance, Navigation, and Control (GNC)

(b)(3).22 USC §2778(e) Sec 38(e)



3.2.1.5 Airborne Test Equipment

The Contractor shall fabricate and test any tooling required for the manufacture of the TMS and FTS. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.6 Integration, Assembly, Test and Checkout

The Contractor shall integrate all subsystems and components into the flight vehicles. The Contractor shall complete Pre-Flight Certification Testing (PFCT) of each flight vehicle. All test data and PFCT reports shall be provided electronically in Contractor format.

3.2.2 Range Safety Coordination

The Contractor shall develop the mission plan for each flight test and coordinate the plan with the Range Safety Officer (RSO) at Point Mugu.

3.2.3 Systems Engineering

The Contractor shall complete the verification matrix of requirements. The Contractor shall maintain the specification tree, requirements database, and verification matrix.

The Contractor shall conduct end-to-end 6-DOF Monte-Carlo simulation and performance predictions at least four weeks prior to each flight test event and present the data at the Test Readiness Review (TRR) for each event. The Contractor shall compile mission success statistics and conduct failure analysis of identified failure modes. All data and test reports shall be provided electronically in Contractor format.

The Contractor shall utilize the HWIL facility to demonstrate system integration, resolve integration issues, demonstrate end-to-end mission simulation prior to flight test events, and evaluate system performance against the system specification.

The contractor shall support Systems Integration Lab (SIL) testing at the Boeing B-1 SIL prior to each flight test (unless there are no software changes).

The Contractor shall conduct captive carry tests of a fully integrated avionics suite to demonstrate and assess system performance, and to collect data against representative targets to verify and improve the end-to-end 6-DOF simulation and subsystem performance.

The Contractor shall conduct comparative analysis after each test event using the 6-DOF monte carlo simulation and test event telemetry. Any significant deviation will be assessed for cause and performance implications. A Failure Review Board (FRB) shall be convened to determine root cause and corrective action for any significant deviation from expected performance. Corrective actions and system refinement for mission critical items will be implemented prior to subsequent test events requiring that system attribute. The comparative analysis and FRB status shall be documented in the test report. The GAT and DARPA will participate in the FRB process. All data and test reports shall be provided electronically in Contractor format.

Following the final demonstration event, the Contractor shall support final system effectiveness assessments by the GAT. The Contractor shall deliver updates to the System Specification.

The Contractor shall deliver any updates to the detail design drawings delivered prior to CDR. The Contractor shall deliver the final versions of the missile OFP and GNC source code.

3.2.4 Systems Test and Evaluation

The contractor will conduct two flight tests in Phase2 that will incrementally demonstrate the missile's capability to launch from a B1-B, navigate to the target area, find the target, and defeat the target. Both flights will be conducted at the Point Mugu Sea Range (PMSR).

The Contractor shall execute a free flight transition test (FFTT) demonstrating the ability of the weapon to transition from captive carriage on the B1-B to controlled free flight with engine running. Secondary objectives of the FFTT shall include target acquisition and track, receipt of in flight target updates (IFTUs) using the WDL, autonomous ingress to the target (as permitted by the range), terminal guidance to the target, and transmission of bomb hit indication (BHI) information over the WDL. The test plan shall be provided to DARPA in Contractor format for approval, and the test report shall be delivered to the GAT electronically in Contractor format.

The Contractor shall execute a final end-to-end integrated flight demonstration (IFD) of LRASM-A system capabilities. Primary objectives of the IFD shall include target acquisition and track, receipt of IFTUs using the WDL, autonomous ingress to the target (as permitted by the range), terminal guidance to the target, and transmission of BHI information over the WDL, followed by target impact. The test plan shall be provided to DARPA in Contractor format for approval, and the test report shall be delivered electronically in Contractor format.

The Contractor shall conduct four Missile Avionics Simulators (MAS) flight tests events to reduce risk for the sensor suite and avionics and rehearse the FTTT and IFD. The last two MAS flight test events will be conducted at PMSR and will include flights against the same targets that will be included in the IFD.

The Contractor shall electronically transfer to the GAT the decrypted and decommutated telemetry data from each flight test NLT 5 working days after the Contractor receives the tapes in Orlando.

3.2.5 Auxiliary Equipment

The Contractor shall fabricate and test any auxiliary equipment required for system fabrication, integration, PHST, and flight test. The Contractor shall procure, fabricate, and test items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

4.0 Period of Performance

The period of performance for Phase 2 shall be 33 months.

5.0 Program Management

5.1 Program Management

The Contractor shall provide the managerial oversight and direction for the program. This will include planning, financial reporting, security, personnel, subcontract management and administration, procurement, production management, product assurance (quality), and technical direction. The Contractor shall manage all subcontracts.

The Contractor shall deliver a level four Work Breakdown Structure (WBS) and Integrated Master Schedule (IMS).

5.2 Master Schedule and Reports

The Contractor shall appoint a Program Manager to provide overall program direction with authority for technical, personnel, and all other resource allocations. The Contractor shall deliver a master plan and IMS. The Contractor shall provide monthly reports identifying any tasks that are behind schedule and reporting expenditures by WBS.

5.3 Technical Reviews

The Contractor shall conduct at least three In-Process Reviews (IPR) (approximately quarterly) and a Critical Design Review (CDR) at its Orlando facilities. IPRs will be no more than two day events covering recent and pending Phase 2 test events and review of the design status. Test Readiness Reviews (TRR) will be one day events at the Contractor facilities for all test events defined in the TEMP (teleconference will be made available for unclassified portions if requested).

The CDR shall cover the following items:

- a) Program Overview and CONOPs review
- b) Requirements, interfaces, and TPMs
- c) Requirements flowdown and allocation
- d) System detail design review
- e) System simulation results
- f) Developmental test results
- g) Operational effectiveness assessment
- h) Safety
- i) Hardware, software, and support equipment
- j) Risk/opportunity management
- k) Phase 2 schedule review

The Contractor shall conduct TRRs for the test activities defined in this SOW at its Orlando facilities.

The TRRs shall cover the following items:

- a) Test overview - Include test objective/purpose, description, time, and location
- b) Test team - Identify test conductor and support team
- c) Test pass/fail criteria
- d) Test matrix and/or test schedule
- e) Test set-up/configuration
- f) Test predictions
- g) Identification of first time events
- h) Instrumentation
- i) Hardware pedigree
- j) Testing history
- k) Software pedigree
- l) Support equipment and spares
- m) Test procedures
- n) Safety issues/concerns
- o) Facilities
- p) Open items list (to include open action items from previous reviews)
- q) Risk assessment
- r) Action items, including identification of those actions items which must be completed prior to test commencement

5.4 Methods of Communication

The Contractor shall participate in weekly telecons with DARPA and the GAT, maintain the unclassified SharePoint site, utilize public key infrastructure encryption for unclassified FOUO email, and maintain the encrypted classified data links to DARPA and JHU/APL.

6.0 Safety

The Contractor shall prepare the source data and develop the application for Interim Hazard Classifications for any hardware containing explosives or fuels for shipping authority. The Contractor shall deliver updates to the System Safety Hazard Assessment (SSHA) as required.

7.0 Requirements for the DARPA GFE RFS and RFS Contractor

7.1 RFS GFE Delivery Dates

The RFS will be provided as GFE. The RFS will be developed by DARPA under a direct contract to DARPA's RFS Contractor (DRC). The Contractor shall assist DARPA with technical monitoring of the DRC. Table 1 establishes the GFE need dates to meet the LRASM-A schedule. Any delay in the deliverables may result in a cost and schedule impact to the Contractor. Table 2 delineates the specification and interfaces the RFS GFE is required to meet as part of the overall LRASM-A system. To the extent that the RFS system does not meet the specification, then it may have a flowdown effect on the LRASM capability. Additional specification and interface requirements are listed in classified Appendix C. There are some requirements identified as TBD in the documents that the Contractor and DRC have to define during the first 4 months after contract award (see Table 1, Item 4). It is anticipated that the Contractor and the DRC will need to meet periodically as defined in Table 1, Items 2, 3, 4, 5, 6, and 13 to accomplish the task of defining the TBDs and verifying ICD accuracy.

Table 1. RFS Delivery Schedule

Item	Date	Milestone	Responsibility and/or Objective(s)
1	2 weeks ARO	Kickoff /specification meeting at RFS supplier	DARPA
2	4 months ARO	Technical meeting	DARPA
3	6 months ARO	Technical meeting	DARPA
4	2.5 months ARO	Technical meeting /TBDs defined in specification and ICDs	Contractor/DARPA
5	8 months ARO	Technical meeting	DARPA
6	10 months ARO	Technical meeting	DARPA
7	3 months ARO first update. Incremental thereafter when updates occur. Final with RFS CDR material delivery (Item 16)	Updated RFS simulation code	DARPA
8	9 months ARO	Deliver RFS HIL&MAS prototype and HIL integration support	DARPA
9	9 months ARO	Contractor provide MAS pod to DRC	Contractor
10	11 months ARO	Install and calibrate aperture in MAS pod	DARPA
11	12 months ARO	MAS integration	Contractor/DARPA
12	13 Months ARO	MAS flight event	Contractor/DARPA
13	10 months ARO	Technical meeting	DARPA
14	13 months ARO	Fit check model delivered	DARPA

Table 1. RFS Delivery Schedule

Item	Date	Milestone	Responsibility and/or Objective(s)
15	14 months ARO	Support aperture calibration test	DARPA
16	14 months ARO	RFS CDR materials delivered	DARPA
17	15 months ARO	MAS flight event	Contractor/DARPA
18	1 month after CDR	1st RFS Delivery	Orlando, FL
19	2 months after CDR	2nd RFS Delivery	Orlando, FL
20	3 months after CDR	3rd RFS Delivery	Orlando, FL
21	3 months after CDR	MAS Flight Event	TBD
22	5 months after CDR	MAS Flight Event	Pt Mugu
23	8 months after CDR	MAS Flight Event	PT Mugu
24	6 months after CDR	FFF Event	Pt Mugu
25	10 months after CDR	IFD Event	Pt Mugu

Table 2. RFS Specification and Interface Requirements

Document Number	Title
797219021	Performance Specification, RF Sensor (RFS)
797219022	Mechanical ICD
797219023	RFS Communications Interface Control Document
797219024	RFS Electrical Interface Control Document

7.2 Phase 2 Additional Required Deliverables Description

7.2.1 System Simulation Support

The DRC shall provide updates to the RFS simulation source code, models and/or RFS algorithm performance emulators provided from BAE Systems in Phase 1 to support the Contractor's system level simulation analysis (need dates as shown in Table 1, Item 7).

7.2.2 Aperture Development - AUR

The DRC shall support Lockheed Martin in the development of the RFS aperture by reviewing/commenting on the Contractor's All Up Round (AUR) aperture design and placement and supporting the maintenance of the interface control documents.

7.2.3 Aperture Development - MAS

The DRC shall support the Contractor in the development of the Missile Avionics Simulator (MAS) aperture by selecting, procuring, installing, and calibrating the COTS aperture on the MAS test bed IAW Table 1, Item 9/10.

7.2.4 Hardware in the Loop (HIL)

The DRC shall provide a prototype RFS for use in the Contractor's HIL in Orlando, FL IAW Table 1, Item 8. The prototype RFS shall provide representative functionality of the system, but is not required to meet the form, fit, and environmental requirements. The DRC shall provide 3 one week support activities to the Contractor in Orlando, FL to support the integration of the Contractor's HIL. The same unit shall be usable in the MAS (See below).

The DRC shall also provide 3 one week support activities to the Contractor in Orlando, FL to support the integration and testing of each delivered RFS on the Contractor's HIL. The 3 one week support activities shall be commensurate with each of the 3 RFS deliveries (Table 1 items 18, 19, and 20).

7.2.5 Missile Avionics Simulator (MAS)

The DRC shall support the initial MAS integration in Orlando, FL. The DRC shall be in place with knowledgeable technicians and engineers to support the integration activity for at least 3 weeks (See Table 1, Item 11). The DRC shall support all five MAS operations identified in Table 1 by reviewing the test plans for each mission and reviewing the data collected. One test flight is expected prior to CDR. A report detailing the RFS data analysis and results from each MAS test is due NLT 3 weeks after the mission. The estimated schedule for the MAS flight events is shown in Table 1, Items 11, 12, 21, 22 and 23.

7.2.6 Aperture Development Support

The DRC shall support the Contractor in the calibration of the aperture if required. The DRC shall review test plans and test set-up to ensure calibration is of the type and accuracy required by DRC. The testing will be conducted in Orlando, FL IAW Table 1, Item 15.

7.2.7 Fit Model

The DRC shall provide form and fit mass simulator for use in fit check and assembly test at the Contractor's facility in Troy, AL as defined in Table 1, Item 14. The DRC shall provide updated form and fit mass simulator for use in fit check and assembly test at Troy, AL if changed from the pre-CDR unit.

7.2.8 CDR

The DRC shall support the LRASM-A system level CDR with required documentation and viewgraphs of the design and analysis of the RFS. The data shall be provided in accordance with Table 1, Item 16.

7.2.9 Flight Test Support

The DRC shall support the two flight operations by reviewing the test plan for each mission and reviewing the data collected. A report detailing the RFS data analysis and results is due NLT 3 weeks after each mission. The estimated schedule for the flight test is shown in Table 1, Items 24 and 25.

OTHER REPORTS AND DELIVERABLES

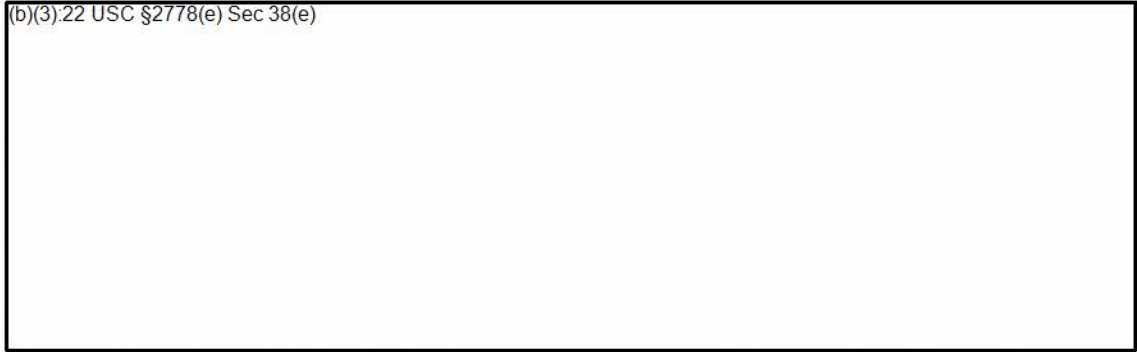
Title	Draft	Final	Update
Contract Work Breakdown Structure for Phases 2a and 2b		30 days ACA	
Master Plan and Integrated Master Schedule for Phase 2		30 days ACA	Monthly
CONOPS			2 weeks prior to CDR
Test and Evaluation Master Plan			4 weeks prior to CDR
System Safety Hazard Assessment			4 weeks prior to CDR
Interim Hazard Classification Data			4 weeks prior to CDR
LRASM-A Air-Launched System Specification			4 weeks prior to CDR and 4 weeks prior to IFD
LRASM-A detail design drawings, interface specifications, and Critical Design Report	4 weeks prior to CDR	2 weeks after CDR	With final report
Operational Effectiveness Analysis Report			2 weeks prior to CDR
Test Plan		60 days prior to each test event	
Test Report		30 days after each test event	
OFP and GNC software	4 weeks prior to CDR	With final report	
Final Report		30 days after the IFD	

Appendix A

This Appendix defines the drawings that will not be provided to the Program Office (DARPA) as part of the design drawing package. There are three categories of drawings to be excluded from the drawing package:

- A. Drawings of commercial parts such as screws, washers, nuts, adhesives, glues, etc. will be referenced in the parts list of the design drawing but no detail specification or drawing of these items shall be provided.

- B. (b)(3):22 USC §2778(e) Sec 38(e)



- C. Commercial Off the Shelf (COTS) subsystems such as the Altimeter, IMU, Weapon Data Link components not developed for LRASM-A, telemetry system components, and flight termination components.

Appendix B

This appendix lists all the items to be purchased prior to CDR in order to support the testing in Phase 2. The list is divided into two pieces. The lists are in the form of a embedded Excel® files for ease of use: File JASSM Common.xlsx. Sheet 1 contains the list of JASSM common parts that will be acquired in a combined purchase with JASSM procurement. Sheet 2 is a list of parts that are not specifically quantified but will be before CDR and will need to be purchased in order to meet Phase 2 test schedule.

(b)(3):22 USC §2778(e) Sec 38(e)



[illegible]

**STATEMENT OF WORK
FOR
LONG RANGE ANTI SHIP MISSILE
(LRASM)
VARIANT A - AIR LAUNCHED

PHASE 2 RISK REDUCTION
ENHANCEMENTS**

1.0 Introduction

The purpose of this Statement of Work is to identify additional risk reduction requirements for Lockheed Martin ("Contractor") to support the Defense Advanced Research Projects Agency (DARPA) in the Long Range Anti-Ship Missile (LRASM) program for an air launched flight demonstration of LRASM-A. The system to be developed under this Statement of Work (SOW) shall be referred to as "LRASM-A."

The program is divided into two phases. Phase 1 culminated in a Preliminary Design Review (PDR) of a ship launched version. Phase 2 will complete a Critical Design Review (CDR) of the air launched version, and following Government approval of the CDR, will execute a flight test series of the air launched LRASM-A version.

The LRASM-A development and demonstration effort is currently being conducted in accordance with the Phase 2 SOW dated 8 May 2012 (Contract Attachment 6). This SOW covers only the changes to the Phase 2 activities that are outlined in Contract Attachment 6.

The section numbering scheme in subsequent sections of this document is consistent with Contract Attachment 6.

2.0 Supplies and Services

The Contractor shall furnish the necessary management, personnel, labor, services, documentation, materials, equipment, tools, facilities, and support services required to perform the tasks necessary to build, test, integrate, and demonstrate associated components for the development and demonstration of the LRASM-A prototype system in accordance with the provisions of this SOW and the Contract.

3.0 Detailed description of supplies and services

3.3 Risk Reduction Enhancements

3.3.1 Additional Captive Carry Testing and Data Analysis

The Contractor shall conduct enhanced captive carry testing to demonstrate the integrated avionics suite operation. The Contractor shall add captive carry flight sorties to the existing MAS test matrix to obtain additional test data to reduce target sensor risk. The Contractor shall conduct additional data analysis between flight tests to reduce the technical risk associated with subsequent flight tests.

3.3.2 Flight Testing of the Spare Missile

Under the basic scope outlined in section 3.2 of Contract Attachment 6, the Contractor is building a third missile (a spare missile). The Contractor shall conduct an additional integrated missile flight test using the spare missile. During this test, the Contractor shall execute a second end-to-end integrated flight demonstration (IFD-2) of LRASM-A system capabilities. Objectives of the IFD-2 shall include target acquisition and track, receipt of IFTUs using the WDL, autonomous ingress to the target (as permitted by the range), terminal guidance to the target, and transmission of BHI information over the WDL, followed by target impact. A test plan shall be provided to the Government in Contractor format for approval, and the test report shall be delivered electronically in Contractor format.

The Contractor shall electronically transfer to the GAT the decrypted and decommutated telemetry data from each flight test NLT 5 working days after the Contractor receives the tapes in Orlando.

3.3.3 Technical Support of the RF Sensor Development

The Contractor shall provide the necessary labor and travel to provide direct technical support of the integration and testing of the government furnished RF Sensor (RFS). This task will require periodic travel to DARPA's RFS contractor's (DRC) work site in Merrimack, NH.

3.3.4 Altimeter Flight Testing at Tactical Altitudes and Speeds

The Contractor shall conduct captive carry flight testing of the missile altimeter components on a Government furnished air vehicle at a Government furnished test range. The Contractor will work closely with the test range to integrate the altimeter components with the air vehicle and will provide on-site support of the captive carry flight test.

3.3.5 Design, Fabrication and Testing of RF Sensor Antennas

The Contractor shall design, fabricate and test an additional iteration of the antennas that are integrated with the RFS. The Contractor will base the design iteration on analyzed results of the RCS pole model test conducted under Section 3.1.3 of Contract Attachment 6. The Contractor will integrate the new antennas with the MAS flight hardware for MAS captive carry flight test series 5 that will be conducted under Section 3.2.4 Contract Attachment 6.

3.3.6 Thermal Testing of the RF Sensor Cooling System with a Functional RF Sensor

The Contractor shall conduct thermal testing of the RFS cooling system (cold plate and associated fuel circulation system) with an operational RFS that is being provided as GFE IAW Section 7.1 of Contract Attachment 6.

3.3.7 Environmental Testing of Missile Avionics

The Contractor shall conduct tactical environmental testing of the missile avionics at the board level. This testing will be an extension to the scope of subsystem-level environmental testing that is being conducted under Section 3.2.1 of Contract Attachment 6.

3.3.8 Documentation of Higher Levels of System Protection

The Contractor shall document any design modifications that may be necessary during the EMD phase of a follow-on program to achieve the level of system protection desired by the US Navy.

3.3.9 Mechanical Design of Missile Modifications Required for Vertical Launch

The Contractor shall initiate detailed design of the missile modifications to enable surface launch of the LRASM-A from the Mk-41 Vertical Launching System (VLS). This effort will begin with the preliminary missile design that was defined in Phase 1 and presented at PDR. The Contractor will begin to further define the design to allow integration of the LRASM-A with a Mk-114 booster and the PDR design of the VLS canister. (b)(4)

(b)(4)

(b)(4) It is anticipated this initial design activity will be five months in duration. As a part of this effort, the Contractor shall prepare and submit a proposal for a VLS risk reduction demonstration, culminating in an expulsion test and a separation test at the end of Government fiscal year 2014.

4.0 Period of Performance

The period of performance for Phase 2 shall be 33 months.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U		PAGE OF PAGES 1 7	
2. AMENDMENT/MODIFICATION NO. P00027		3. EFFECTIVE DATE 10-Aug-2012		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: (b)(6) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA SPECIAL PROGRAMS SOUTH 14285 MIDWAY SUITE 450 ADDISON TX 75001		CODE S4802A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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) See Schedule							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/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. FAR 52.243-2 (All V) and FAR 43.103(a)							
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).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: cglsta121064 See page 2.							
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) (b)(4)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
				EMAIL: (b)(6)			
15B. CONTRACTOR/OFFEROR (b)(4)		15C. DATE SIGNED 8/9/12		16B. SIGNATURE OF CONTRACTING OFFICER (b)(6)		16C. DATE SIGNED 8/10/12	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

The purpose of this modification is to issue an unpriced change order to allow for the purchase of long lead material required to support the planned LRASM-A Surface Launch Risk Reduction (SLRR) effort. The Contractor shall provide a final Bill-of-Materials (BOM) no later than August 31, 2012. The total amount of the final BOM submitted for this modification shall not exceed \$2,607,881 and is subject to downward adjustment as a result of negotiations. All items contained in the BOM with a unit acquisition cost greater than \$5,000 shall be supported by a vendor proposal/quote or past purchase order.

This modification also updates the addresses in Section F to be used for report distribution and extends the definitization date for the change order issued by P00026 to September 14, 2012.

Accordingly, the following changes are made to the Contract:

SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by \$2,607,881.00 from \$90,926,642.00 to \$93,534,523.00.

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0003 is added as follows:

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003			Lot		\$2,607,881.00 NTE
	LRASM-A SLRR Long Lead Items				
	COST				
	LRASM Surface Launch Risk Reduction (SLRR) Effort Long Lead Items -				
	The Contractor shall procure material required to support the planned LRASM-				
	A Surface Launch Risk Reduction (SLRR) effort.				
	FOB: Destination				
				ESTIMATED COST	\$2,607,881.00 NTE*

* Not to exceed (NTE). This amount is subject to downward adjustment pending the outcome of negotiations. Fee on negotiated costs will be allowed and is also subject to negotiation so long as the total CPFF amount does not exceed \$2,607,881. Definitization of the NTE is planned to occur as a part of negotiations for the LRASM-A Surface Launch Risk Reduction Proposal as one contract action. In the event negotiations for the LRASM-A Surface Launch Risk Reduction Effort prove unsuccessful, the Contractor agrees to support a stand-alone negotiation for definitization of the SLRR Long Lead Items only.

SUBCLIN 000301 is added as follows:

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000301	Funding for CLIN 0003 COST Funding for CLIN 0003 FOB: Destination AO No. Z907/13				\$0.00
				ESTIMATED COST	\$0.00
	ACRN AF CIN: 00000000000000000000000000000000				\$1,188,691.00

SUBCLIN 000302 is added as follows:

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000302	Funding for CLIN 0003 COST Funding for CLIN 0003 FOB: Destination AO No. 907/12				\$0.00
				ESTIMATED COST	\$0.00
	ACRN AH CIN: 00000000000000000000000000000000				\$115,250.00

SECTION C - DESCRIPTIONS AND SPECIFICATIONS

The following have been modified (changes are shown in bold):

C-1 Scope of Work

(a) The Contractor shall furnish the necessary personnel, materials, facilities and other services as may be required to perform Contract Line Item Numbers (CLINs) 0001, 0002, and **0003** in accordance with Attachment Nos. 1 and 8 hereto.

SECTION E - INSPECTION AND ACCEPTANCE

The following Acceptance/Inspection Schedule was added for CLIN 0003:

INSPECT AT Destination	INSPECT BY Government	ACCEPT AT Destination	ACCEPT BY Government
---------------------------	--------------------------	--------------------------	-------------------------

The Contractor shall submit a DD 250 to DCMA Special Programs South (DoDAAC S4802A) documenting that the work called for under CLIN 0002 is completed.

The Contractor shall submit a DD 250 to DCMA Special Programs South (DoDAAC S4802A) documenting that the work called for under CLIN 0003 is completed.

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item has been added to CLIN 0003:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 30-JUL-2012 TO 13-SEP-2013	N/A	OFFICE OF NAVAL RESEARCH GIL GRAF 875 NORTH RANDOLPH STREET SHIPS AND ENGINEERING SYSTEMS DIVISION CODE 331 ARLINGTON VA 22203-1995 703-696-4449 FOB: Destination	N00014

The following have been modified (changes shown in bold):

F-3 Report Distribution

- (a) DARPA/Tactical Technology Office (TTO)
ATTN: Artie Mabbett
675 North Randolph Street
Arlington, VA 22203-2114
Email: arthur.mabbett@darpa.mil
(one copy of every report and deliverable)
- (b) DARPA/Tactical Technology Office (TTO)
ATTN: Assistant Director, Program Management (ADPM)
675 North Randolph Street
Arlington, VA 22203-2114
Email: adpm-tto@darpa.mil
(one copy of the R&D Status Reports and Final Reports for Phases 1 and 2)
- (c) Gil Graff, Contracting Officer's Representative
Office of Naval Research
One Liberty Center
875 North Randolph Street
Arlington, VA 22203-1915
Email: Gil.Graff@navy.mil
(one copy of every report and deliverable)
- (d) DARPA/Research Services
675 North Randolph Street
Arlington, VA 22203-2114
Email: ResearchServices@darpa.mil
(one copy of the Final Reports for Phases 1 and 2)
- (e) Defense Technical Information Center
 - (1) Email: TR@dtic.mil
(one electronic copy of the Final Reports for Phases 1 and 2, if unclassified)

OR

- (2) Attn: DTIC-BCS
8725 John J. Kingman Road, Suite 0944
Fort Belvoir, VA 22060-0944
(two hard copies of the Final Reports for Phases 1 and 2, if unclassified)

- (f) DARPA/Contracts Management Office (CMO)
ATTN: Christopher L. Glista
675 North Randolph Street
Arlington, VA 22203-2114
Email: reportscg@darpa.mil
(one copy of the R&D Status Reports and Final Reports for Phases 1 and 2)

Note 1: (a) through (f) – submissions of unclassified materials only. Submission of classified material shall be coordinated through DARPA SID and/or Artie Mabbett, DARPA Program Manager, in accordance with the DD 254, as applicable.

Note 2: For the Final Technical Report(s), the Contractor must also comply with the distribution requirements of DFARS 252.235-7011, as applicable.

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by \$1,303,941.00 from \$82,324,571.00 to \$83,628,512.00.

SUBCLIN 000301:

Funding on SUBCLIN 000301 is initiated as follows:

ACRN: AF

CIN: 00000000000000000000000000000000

Acctng Data: 9710400 1320 Z907 P1C40 2525 DPAC 1 5190 S12136 63286E

Increase: \$1,188,691.00

Total: \$1,188,691.00

SUBCLIN 000302:

Funding on SUBCLIN 000302 is initiated as follows:

ACRN: AH

CIN: 00000000000000000000000000000000

Acctng Data: 1721319 W3DJ 255 RA353 0 068342 2D 000000 02911000LA80 068342 AA

Increase: \$115,250.00

Total: \$115,250.00

SECTION I - CONTRACT CLAUSES

The following have been modified:

52.216-24 LIMITATION OF GOVERNMENT LIABILITY (APR 1984)

(a) In performing this contract, the Contractor is not authorized to make expenditures or incur obligations exceeding \$93,534,523 dollars.

(b) The maximum amount for which the Government shall be liable if this contract is terminated is \$93,534,523 dollars.

(End of clause)

252.217-7027 CONTRACT DEFINITIZATION (OCT 1998) (P00026, Applies Only to the CLIN 0002 NTE)

(a) An unpriced change order is contemplated. The Contractor agrees to begin promptly negotiating with the Contracting Officer the terms of a definitive contract that will include (1) all clauses required by the Federal Acquisition Regulation (FAR) on the date of execution of the undefinitized contract action, (2) all clauses required by law on the date of execution of the definitive contract action, and (3) any other mutually agreeable clauses, terms, and conditions. The Contractor agrees to submit a cost-plus-fixed-fee proposal and cost or pricing data supporting its proposal.

(b) The schedule for definitizing this contract is as follows.

The Contractor shall provide its proposal no later than July 9, 2012. Negotiations will commence upon receipt of the qualifying proposal. Negotiations shall conclude by the earlier of:

(1) **September 14, 2012**; or

(2) The date on which the amount of funds obligated under this change order is equal to more than 50 percent of the not-to-exceed price.

(c) If agreement on a definitive contract action to supersede this undefinitized contract action is not reached by the target date in paragraph (b) of this clause, or within any extension of it granted by the Contracting Officer, the Contracting Officer may, with the approval of the head of the contracting activity, determine a reasonable price or fee in accordance with subpart 15.4 and part 31 of the FAR, subject to Contractor appeal as provided in the Disputes clause. In any event, the Contractor shall proceed with completion of the contract, subject only to the Limitation of Government Liability clause.

(1) After the Contracting Officer's determination of price or fee, the contract shall be governed by--

(i) All clauses required by the FAR on the date of execution of this undefinitized contract action for either fixed-price or cost-reimbursement contracts, as determined by the Contracting Officer under this paragraph (c);

(ii) All clauses required by law as of the date of the Contracting Officer's determination; and

(iii) Any other clauses, terms, and conditions mutually agreed upon.

(2) To the extent consistent with paragraph (c)(1) of this clause, all clauses, terms, and conditions included in this undefinitized contract action shall continue in effect, except those that by their nature apply only to an undefinitized contract action.

(d) The definitive contract resulting from this undefinitized contract action will include a negotiated cost-plus-fixed-fee ceiling in no event to exceed \$90,926,642.

(End of clause)

(End of Summary of Changes)

All other terms and conditions of contract HR0011-09-C-0096 shall remain in full force and effect except as modified herein.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE U		PAGE OF PAGES 1 2	
2 AMENDMENT/MODIFICATION NO P00028		3 EFFECTIVE DATE 10-Aug-2012		4 REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5 PROJECT NO (If applicable)	
6 ISSUED BY DARPA CMO ATTN: (b)(6) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114		CODE HR0011		7 ADMINISTERED BY (If other than item 6) DCMA SPECIAL PROGRAMS SOUTH 14285 MIDWAY SUITE 450 ADDISON TX 75001		CODE S4802A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer 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) See Schedule							
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.							
X 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).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> 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 Control Number: cglsta121123 This modification provides incremental funding in the amount of \$4,301,035.							
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)			
				(b)(6) TEL: (b)(6) EMAIL: (b)(6)			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				BY (b)(6) (Signature of Contracting Officer)		10-Aug-2012	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by \$4,301,035.00 from \$83,628,512.00 to \$87,929,547.00.

SUBCLIN 000205:

AF: 9710400 1320 Z907 P1C40 2525 DPAC 1 5190 S12136 63286E (CIN 00000000000000000000000000000000) was increased by \$3,083,106.00 from \$2,601,447.00 to \$5,684,553.00

SUBCLIN 000206:

AG: 1711319 W3DJ 255 RA353 0 068342 2D 000000 02911000LN80 068342 AA (CIN 00000000000000000000000000000000) was increased by \$1,217,929.00 from \$8,602,071.00 to \$9,820,000.00

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE U		PAGE OF PAGES 1 3	
2 AMENDMENT/MODIFICATION NO P00029		3 EFFECTIVE DATE 26-Sep-2012		4 REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5 PROJECT NO (If applicable)	
6 ISSUED BY DARPA CMO ATTN: (b)(6) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114		CODE HR0011		7 ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer 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) See Schedule							
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.							
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).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-2, Alt V and FAR 43.103(a)							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: cglsta121182 See page 2.							
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) (b)(6)			
				TEL: (b)(6) EMAIL: (b)(6)			
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA (b)(6) BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED 28-Sep-2012	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

This modification definitizes the change order issued by P00026 in the amount of \$16,565,914. Accordingly, make the following changes:

SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was decreased by \$638,229.00 from \$93,534,523.00 to \$92,896,294.00.

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0002

The estimated/max cost has decreased by (b)(4)

The fixed fee has (b)(4)

The cost constraint NTE has been deleted.

The total cost of this line item has decreased by (b)(4)

SUBCLIN 000207 is added as follows:

<u>ITEM NO</u>	<u>SUPPLIES/SERVICES</u>	<u>ESTIMATED COST</u>	<u>FIXED FEE</u>	<u>TOTAL EST. COST PLUS FIXED FEE</u>
000207	Funding for CLIN 0002	\$0.00	\$0.00	\$0.00
	CPFF			\$0.00
	Funding for CLIN 0002			
	FOB: Destination			
	AO No. Z907/11			
	ACRN AH			\$2,707,447.00

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by \$3,662,808.00 from \$87,929,547.00 to \$91,592,355.00.

SUBCLIN 000205:

AF: 9710400 1320 Z907 PIC40 2525 DPAC 1 5190 S12136 63286E (CIN
00000000000000000000000000000000) was increased by \$955,361.00 from \$5,684,553.00 to \$6,639,914.00

SUBCLIN 000207:

Funding on SUBCLIN 000207 is initiated as follows:

ACRN: AH

CIN: 00000000000000000000000000000000

Acctng Data: 1721319 W3DJ 255 RA353 0 068342 2D 000000 02911000LA80 068342 AA

Increase: \$2,707,447.00

Total: \$2,707,447.00

SECTION I - CONTRACT CLAUSES

The following have been deleted:

52.216-24	Limitation Of Government Liability	APR 1984
252.217-7027	Contract Definitization	OCT 1998

In consideration of the modification agreed to herein as a complete equitable adjustment for the Contractor's change proposal titled "LRASM-A Phase 2 Risk Reduction Enhancements" dated June 29, 2012, the Contractor hereby releases the Government from any and all liability under the Contract for further equitable adjustments attributable to such facts or circumstances giving rise to the proposal described above.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U	PAGE OF PAGES 1 6
2. AMENDMENT/MODIFICATION NO P00030		3. EFFECTIVE DATE 31-Oct-2012	4. REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5. PROJECT NO (If applicable)
6. ISSUED BY DAR/A CMO ATTN: (b)(6) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114		CODE HR0011	7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907		CODE S1005A
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907			9A. AMENDMENT OF SOLICITATION NO.		
			9B. DATED (SEE ITEM 11)		
			X 10A. MOD OF CONTRACT/ORDER NO HR0011-09-C-0096		
			X 10B. DATED (SEE ITEM 13) 28-Jun-2009		
CODE 04939			FACILITY CODE		
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<p>The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of offer <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended.</p> <p>Offer 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.</p>					
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule					
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/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. FAR 52.243-2 (Alt V) and FAR 43.103(a)					
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)					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jeung1362					
(See Pages 2 to 6)					
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 (b)(4)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
15B. DATE SIGNED 25 Oct 2012		16B. UNITED STATES OF AMERICA (b)(6)		16C. DATE SIGNED 10/26/12	
(Signature of person authorized to sign)		(Signature of Contracting Officer)			
EXCEPTION TO SF 30 APPROVED BY OIRM 11-84		30-105-04		STANDARD FORM 30 (Rev. 10-83) Prescribed by GSA FAR (48 CFR) 53.243	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

The purpose of the modification is to issue an unpriced change order for additional effort entitled, "LRASM-A Phase 2 Surface Launched Risk Reduction" within the general scope of the existing Contract. The modification provides additional funding in the amount of \$17,857,315.00 to support the change order and extends the term of the Contract to December 31, 2014. Accordingly, make the following changes to the Contract:

SECTION A - SOLICITATION/CONTRACT FORM

The total cost of the Contract is increased by \$54,962,556.00 from \$92,896,294.00 to \$147,858,850.00.

SECTION B - SUPPLIES OR SERVICES AND PRICES

Revise CLIN 0003 description as follows:

From: LRASM-A SLRR Long Lead Items

LRASM Surface Launch Risk Reduction (SLRR) Effort Long Lead Items - The Contractor shall procure material required to support the planned LRASM-A Surface Launch Risk Reduction (SLRR) effort.

To: LRASM-A Phase 2 SLRR effort

The Contractor shall perform Phase 2 Surface Launched Risk Reduction (SLRR) effort of the Long Range Anti-Ship Missile (LR-ASM) Demonstration Program in accordance with Attachment No. 9 - Phase 2 LRASM-A SLRR Statement of Work and Section C-1 of the Contract. Technical data, reports, and other deliverables are not separately priced and shall be provided to the Government in accordance with Sections C, F, and Attachment No. 9 of the Contract

The estimated cost is increased by \$54,962,556.00 from \$2,607,881.00 to \$57,570,437.00.

The total cost of this line item is increased by \$54,962,556.00 from \$2,607,881.00 to \$57,570,437.00.

Therefore the revised CLIN 0003 shall read as follows:

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	LRASM-A Phase 2 SLRR effort		Lot		\$57,570,437.00 NTE
	COST				
	The Contractor shall perform Phase 2 Surface Launched Risk Reduction (SLRR) effort of the Long Range Anti-Ship Missile (LR-ASM) Demonstration Program in accordance with Attachment No. 9 - Phase 2 LRASM-A SLRR Statement of Work and Section C-1 of the Contract. Technical data, reports, and other deliverables are not separately priced and shall be provided to the Government in accordance with Sections C, F, and Attachment No. 9 of the Contract.				
	FOB: Destination				

ESTIMATED COST \$57,570,437.00 NTE*

* Not to exceed (NTE) – This amount is subject to downward adjustment pending the outcome of negotiations. Fee on negotiated costs will be allowed and is also subject to negotiation so long as the total CPFF amount of CLIN

0003 does not exceed \$57,570,437.00. Definitization of the NTE is planned to include the LRASM-A Phase 2 SLRR effort incorporated under this modification (P00030) and the purchase of the SLRR long lead material previously incorporated under Modification P00027.

SECTION C - DESCRIPTION AND SPECIFICATIONS

Revise paragraph (a) of Section C-1 – Scope of Work – to read as follows:

C-1 Scope of Work

(a) The Contractor shall furnish the necessary personnel, materials, facilities and other services as may be required to perform Contract Line Item Numbers (CLINs) 0001, 0002, and 0003 in accordance with Attachment Nos. 1, 6, 8, and 9 hereto.

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0003 is changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 30-JUL-2012 TO 13-SEP-2013	N/A	OFFICE OF NAVAL RESEARCH GIL GRAF 875 NORTH RANDOLPH STREET SHIPS AND ENGINEERING SYSTEMS DIVISION CODE 331 ARLINGTON VA 22203-1995 703-696-4449 FOB: Destination	N00014

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 30-JUL-2012 TO 31-DEC-2014	N/A	OFFICE OF NAVAL RESEARCH GIL GRAF 875 NORTH RANDOLPH STREET SHIPS AND ENGINEERING SYSTEMS DIVISION CODE 331 ARLINGTON VA 22203-1995 703-696-4449 FOB: Destination	N00014

Extend the term of the Contract from September 13, 2013 to December 31, 2014. Therefore, Section F-1 – Term of Contract – is revised to read as follows:

F-1 Term of Contract

The term of the Contract commences on June 29, 2009 and continues through December 31, 2014.*

* An Authorization to Incur Pre-Award Costs was issued to the Contractor on May 18, 2009, as amended on June 15, 2009 (see Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs under Contract HR0011-09-C-0096).

(a) The Contract is incrementally funded in the amount of \$109,449,670.00. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of \$109,449,670.00 shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

SECTION H - SPECIAL CONTRACT REQUIREMENTS

Revise Section H-11 - Proprietary Technical Data and Computer Software – to read as follow:

H-11 Proprietary Technical Data and Computer Software

(a) Any deliverable technical data or computer software developed or generated at private expense and considered to be proprietary by the Contractor or subcontractors shall be delivered in accordance with DFARS 252.227-7013 and 252.227-7014. A list of such data and/or software is incorporated into the Contract as Attachment No. 3, Revision 2.

Add the following Section H-18 - Government Furnished Property - to the Contract:

H-18 Government Furnished Property

(a) Government Furnished Property (GFP) shall be provided to the Contractor in accordance with the schedules listed in Attachment Nos. 7 and 10 of the Contract.

SECTION I - CONTRACT CLAUSES

Incorporate the following updated FAR and DFARS clauses by full text into the Contract:

52.216-24 LIMITATION OF GOVERNMENT LIABILITY (APR 1984)

(a) In performing this contract, the Contractor is not authorized to make expenditures or incur obligations exceeding **\$109,449,670.**

(b) The maximum amount for which the Government shall be liable if this contract is terminated is **\$109,449,670.**

(End of clause)

252.217-7027 CONTRACT DEFINITIZATION (OCT 1998)

(a) An **unpriced change order** is contemplated. The Contractor agrees to begin promptly negotiating with the Contracting Officer the terms of a definitive contract that will include (1) all clauses required by the Federal Acquisition Regulation (FAR) on the date of execution of the undefinitized contract action, (2) all clauses required by law on the date of execution of the definitive contract action, and (3) any other mutually agreeable clauses, terms, and conditions. The Contractor agrees to submit cost or pricing data supporting its proposal.

(b) The schedule for definitizing this contract is as follows:

Negotiations shall conclude by

- (1) the earlier of November 30, 2012, or**
- (2) the date on which the amount of funds obligated under this change order is equal to more than 50 percent of the not-to-exceed price.**

(c) If agreement on a definitive contract action to supersede this undefinitized contract action is not reached by the target date in paragraph (b) of this clause, or within any extension of it granted by the Contracting Officer, the Contracting Officer may, with the approval of the head of the contracting activity, determine a reasonable price or fee in accordance with subpart 15.4 and part 31 of the FAR, subject to Contractor appeal as provided in the Disputes clause. In any event, the Contractor shall proceed with completion of the contract, subject only to the Limitation of Government Liability clause.

(1) After the Contracting Officer's determination of price or fee, the contract shall be governed by--

(i) All clauses required by the FAR on the date of execution of this undefinitized contract action for either fixed-price or cost-reimbursement contracts, as determined by the Contracting Officer under this paragraph (c);

(ii) All clauses required by law as of the date of the Contracting Officer's determination; and

(iii) Any other clauses, terms, and conditions mutually agreed upon.

(2) To the extent consistent with paragraph (c)(1) of this clause, all clauses, terms, and conditions included in this undefinitized contract action shall continue in effect, except those that by their nature apply only to an undefinitized contract action.

(d) The definitive contract resulting from this undefinitized contract action will include a negotiated **cost-plus-fixed-fee ceiling** in no event to exceed **\$147,858,850**.

(End of clause)

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

Revise Section J to include the new Attachment Nos. 9 and 10. Replace Section J with the following updated version:

- Attachment No. 1 (revised) - Statement of Work entitled, "Long Range Anti-Ship Missile (LR-ASM) Demonstration Program, Phase I, dated October 29, 2009" (9 pages)
- Attachment No. 2 - Contracting Officer's Representative (COR) Designation Memorandum, dated June 9, 2009 (3 pages)
- Attachment No. 3 - Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software, **Revision 2 (10 pages)**
- Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs, dated May 18, 2009, as amended on June 15, 2009 (3 pages)
- Attachment No. 5 - Revised Contract Security Classification Specification, DD Form 254, dated August 13, 2010 (5 pages)
- Attachment No. 6 - LRASM-A Phase 2 Statement of Work, dated May 8, 2012 (17 pages)
- Attachment No. 7 - Government Furnished Equipment/Property (GFE/GFP) List, dated April 14, 2011 (3 pages)
- Attachment No. 8 - Statement of Work for Phase 2 Risk Reduction Enhancements, dated May 8, 2012 (4 pages)
- Attachment No. 9 - Statement of Work for LRASM-A Phase 2 Surface Launched Risk Reduction effort, dated October 24, 2012 (10 pages)**
- Attachment No. 10 - Government Furnished Equipment/Property/Services (GFE/GFP/GFS) List, dated October 24, 2012 (2 pages)**

A copy of Attachment Nos. 9 and 10 is included in this modification as enclosures 1 and 2.

~ End ~

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

**STATEMENT OF WORK
FOR
LONG RANGE ANTI SHIP MISSILE (LRASM)
VARIANT A - SURFACE LAUNCHED

PHASE 2**

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1.0 Introduction

The purpose of this Statement of Work is to identify the requirements for Lockheed Martin (“Contractor”) to support the Defense Advanced Research Projects Agency (DARPA) in the Long Range Anti-Ship Missile (LRASM) program for a Surface Launched flight demonstration of LRASM-A. The system to be developed under this Statement of Work (SOW) shall be referred to as “LRASM-A.”

2.0 Supplies and Services

The Contractor shall furnish the necessary management, personnel, labor, services, documentation, materials, equipment, tools, facilities, and support services required to perform the tasks necessary to build, test, integrate, and demonstrate associated components for the development and demonstration of the LRASM-A prototype system in accordance with the provisions of this SOW and the contract.

The Contractor shall complete the detailed design of the surface launched configuration of the LRASM-A missile, and deliver the design except for specific COTS or MOTS items or subsystems not developed on this program. The detail design drawings shall be delivered in Contractor format on electronic media. The Contractor shall conduct demonstration and performance assessment of all subsystems through testing, simulation, or analogy as specified for each subsystem in this SOW. The Contractor shall develop and deliver design and transition support documentation as defined in this SOW.

The Contractor shall deliver the system detailed design, 6DOF simulation source code, and all requested test and simulation data. The Contractor shall participate in Government Assessment Team (GAT) technical interchanges as necessary to support independent government assessment of LRASM-A capability.

The Contractor shall complete the fabrication, integration, flight test qualification, and flight demonstration of no less than two LRASM-A weapons as specified in this SOW. Simulation and Hardware-in-the Loop (HWIL) testing shall be executed to verify system integration, provide risk reduction to flight test events, and conduct data collection for extrapolation to broader mission requirements. The Contractor shall develop and deliver design documentation as defined in this SOW. The Contractor shall procure, manufacture, assemble, and test the subsystems and test articles required to complete the flight tests.

3.0 Detailed description of supplies and services

3.1 *Surface Launched Configuration Development and Test*

3.1.1 Flight Vehicle

The Contractor shall perform the necessary activities to complete the design and manufacture of the flight vehicles for a MK-41 Vertical Launching System (VLS) compatible configuration, to include the following tasks:

3.1.1.1 *Propulsion*

The Contractor shall complete the detailed design of the propulsion subsystem. The Contractor shall assess the performance of all propulsion elements of the system including the egress solid rocket booster and air breathing engine that provides sustain propulsion.

(b)(4)

The Contractor shall fabricate and test any tooling required for the manufacture of the propulsion system. The Contractor shall procure, fabricate, and test any items required to meet the program test objectives and schedule. The engine shall pass an Acceptance Test Procedure (ATP) approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.1.1.2 Payload

The Contractor shall complete the detailed design of the inert configuration to be used for flight tests. The Contractor shall fabricate and test any tooling required for the manufacture of the inert warhead.

3.1.1.3 Airframe

The Contractor shall complete the detailed design of the (b)(4) (b)(4) The Contractor shall assess the performance of the airframe and booster stack through scaled wind tunnel testing, static load testing, dynamic structural analysis and testing. All analysis reports and test reports shall be provided to the GAT electronically in Contractor format.

Requirements for weight and balance limits as well as test unique equipment such as telemetry and flight termination subsystems shall be accommodated in the design.

The Contractor shall fabricate and test any tooling required for the manufacture of the airframe. The Contractor shall procure, fabricate, and test any items required to meet the program test objectives and schedule. If required, all subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.1.1.4 Guidance, Navigation, and Control

The Contractor shall complete the detailed design of the operational flight program (OFP) for the missile to include all interfaces to the VLS and Mk-114 booster assembly. The Contractor shall demonstrate and assess the performance of the OFP by end-to-end closed-loop 6-DOF simulation and integrated HWIL simulation. All requested test data and OFP source code shall be provided electronically in Contractor format.

The Contractor shall perform the necessary flight simulations and safety footprint analysis to support range safety approval of the demonstration flights to be conducted at WSMR.

The Contractor shall provide to the GAT electronically in Contractor format an update to the OFP white-paper that provides the engineering equations, block diagrams, and text describing the design intent that is implemented in the final OFP version for all aspects of in-flight guidance, navigation, and control.

The Contractor shall fabricate and test any tooling required for the manufacture of the guidance and control avionics

3.1.1.5 Airborne Test Equipment

The Contractor shall complete the detailed design of the Telemetry System (TMS). The Contractor shall assess and test the performance of the TMS as necessary to complete flight and range qualification.

The Contractor shall provide detailed technical information on the Flight Termination System (FTS) and support the range safety approval process at WSMR.

The Contractor shall fabricate and test any tooling required for the manufacture of the TMS and

FTS. The Contractor shall procure, fabricate, and test any items required to meet the program objectives and schedule FTS hardware shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.1.1.6 Integration, Assembly and Checkout

The Contractor shall integrate all subsystems and components into the flight vehicles. The Contractor shall complete Pre-Flight Certification Testing (PFCT) of each flight vehicle (LRASM-A cruise configuration). All test data and PFCT reports shall be provided electronically in Contractor format.

3.1.2 Range Safety Coordination

The Contractor shall develop the mission plan for each flight test and coordinate the plan with the Range Safety Officer (RSO) at WSMR.

3.1.3 Command Launch

The Contractor shall perform the necessary activities to complete the design of the Command Launch systems.

The Contractor shall complete the detailed design of the launch canister. The Contractor shall assess the performance of the canister by thermal and structural analysis of expected demonstration launch environments, analogy to operational launch canisters, prototype canister fit check, and canister forward cover push through testing. Assessment shall include all relevant ship integration and qualification requirements, including ability to achieve grade A shock certification. The Contractor shall complete the detailed design of a Mk 33 loader configuration to enable mating of flight system to the canister. All analysis reports shall be provided to the GAT electronically in Contractor format.

The Contractor shall complete the detailed design of the rocket booster interfaces, transition structure, and DAC. The Contractor shall assess the performance of the booster by structural analysis, aerodynamic analysis of separation events, end-to-end closed-loop 6-DOF simulation (to include booster and transition structure separation events), and integrated VLS HWIL simulation. The assessment shall include adequacy of thrust vector control to achieve a safe separation trajectory and meet vertical launch trajectory safety requirements, and booster adequacy to meet required end of boost flight conditions (altitude, range and speed). All analysis reports shall be provided to the GAT electronically in Contractor format.

The Contractor shall provide an assessment of the All-Up-Round (encanistered missile and booster, canister, and VLS interfaces) for MK-41 Baseline 7 compatibility. The assessment shall include electrical, mechanical, environmental, insensitive munitions, and safety factors.

The Contractor shall complete the detailed design of the mission planning and stimulation processes and systems sufficient to conduct the flight tests. The Contractor shall demonstrate and assess the performance of the test command launch systems by integrated SIL testing with VLS hardware. Demonstration and assessment shall include mission plan and stimulation requirements to support range safety coordination. All test reports shall be provided to the GAT electronically in Contractor format.

3.1.4 Systems Engineering

The Contractor shall refine and maintain system requirements, including traceability to component specifications, in a DOORS database and requirements verification matrix for the VLS configuration.

The Contractor shall complete the detailed design of the integrated system and present the design at an quarterly in-process reviews (IPR). (b)(4)

(b)(4) The Contractor shall develop and deliver a fully populated aerodynamic model in a 6-DOF simulation, and shall provide updated range and performance assessments. The simulation source code shall be provided electronically in Contractor format.

The Contractor shall update the HWIL simulation to reflect the VLS configuration weapon. The HWIL shall simulate external interfaces where practical and record hardware and software response from inserted subsystems or subsystem simulators. All requested test data and analysis reports shall be provided electronically in Contractor format.

The Contractor shall conduct end-to-end 6-DOF Monte-Carlo simulation and performance predictions at least four weeks prior to each flight test event and present the data at the Test Readiness Review (TRR) for each event. The Contractor shall compile mission success statistics and conduct failure analysis of identified failure modes. All data and test reports shall be provided electronically in Contractor format.

The Contractor shall utilize the HWIL facility to demonstrate system integration, resolve integration issues, demonstrate end-to-end mission simulation prior to flight test events, and evaluate system performance against the system specification.

The Contractor shall conduct comparative analysis after each test event using the 6-DOF monte carlo simulation and test event telemetry. Any significant deviation will be assessed for cause and performance implications. A Failure Review Board (FRB) shall be convened to determine root cause and corrective action for any significant deviation from expected performance. Corrective actions and system refinement for mission critical items will be implemented prior to subsequent test events requiring that system attribute. The comparative analysis and FRB status shall be documented in the test report. The GAT and DARPA will participate in the FRB process. All data and test reports shall be provided electronically in Contractor format.

The Contractor shall deliver updates to the System Specification. The Contractor shall deliver the final versions of the missile OFP and GNC source code.

3.1.5 Systems Test and Evaluation

The Contractor shall perform the necessary activities to conduct system testing, to include the following tasks:

The Contractor shall execute scaled wind tunnel testing of the system, including boost and cruise configurations. The Contractor shall provide a wind tunnel test plan, all requested test data, and a post-test report electronically in Contractor format.

The Contractor shall execute two surface launched flight tests at White Sands Missile Range (WSMR) (b)(4)

The test plan shall be delivered to the Government in Contractor format for approval. The government will approve or disapprove of the test plan within 30 days. The test report shall be provided to the GAT electronically in Contractor format.

The Contractor shall deliver an updated Test and Evaluation Master Plan (TEMP). The TEMP shall include summary of all testing completed to date, preliminary test planning, as well as anticipated certification testing required in EMD to achieve IOC.

The Contractor shall execute a forward cover push through test as risk reduction for the flights. The Contractor shall provide a push through test plan and post test report to the GAT electronically in Contractor format. The Contractor shall conduct a canister prototype fit check. Results of the fit check shall be provided to the GAT electronically in Contractor format.

The Contractor shall fabricate and test any tooling required for the manufacture of the missile canister, booster adapter, and booster assembly. The Contractor shall procure, fabricate, and test the canister, booster adapter, and booster assembly required to meet the test schedule.

The Contractor shall transfer, to the GAT, the decrypted and decommutated telemetry data from each flight test NLT 5 working days after the Contractor receives the tapes in Orlando.

3.1.6 Auxiliary Equipment

The Contractor shall fabricate and test any auxiliary equipment required for system fabrication, integration, PHST, and flight test. The Contractor shall procure, fabricate, and test items required to meet the program test objectives and schedule. If required, all subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

4.0 Program Management

4.1 Program Management

The Contractor shall provide the managerial oversight and direction for the program. This will include planning, financial reporting, security, personnel, subcontract management and administration, procurement, production management, product assurance (quality), and technical direction. The Contractor shall manage all subcontracts.

The Contractor shall deliver a level three Work Breakdown Structure (WBS) and Integrated Master Schedule (IMS).

4.2 Master Schedule and Reports

The Contractor shall appoint a Program Manager to provide overall program direction with authority for technical, personnel, and all other resource allocations. The Contractor shall deliver a master plan and IMS. The Contractor shall provide monthly reports identifying any tasks that are behind schedule and reporting expenditures by WBS.

4.3 Technical Reviews

The Contractor shall conduct at least six In-Process Reviews (IPR) (approximately quarterly at its Orlando facilities. IPRs will be no more than two day events covering recent and pending test events and review of the design status. Test Readiness Reviews (TRR) will be one day events at the Contractor facilities for all test events defined in the TEMP (teleconference will be made available for unclassified portions if requested). A single Test Design Review (TDR) will be held for the flight tests that will be conducted at WSMR. The TDR will follow the same outline as a TRR, but will be conducted well in advance of the TRR to allow the Government time to impact the goals and execution plans for the tests.

The IPRs shall cover the following items:

- a) Program Overview
- b) Requirements, interfaces, and TPMs
- c) Requirements flowdown and allocation
- d) System detail design review
- e) System simulation results
- f) Developmental test results
- g) Safety
- h) Hardware, software, and support equipment
- i) Risk/opportunity management

j) Schedule review

The Contractor shall conduct TRRs for the test activities defined in this SOW at its Orlando facilities. The TDR shall also be conducted the Contractor's Orlando facility.

The TDR and all TRRs shall cover the following items:

- a) Test overview - Include test objective/purpose, description, time, and location
- b) Test team - Identify test conductor and support team
- c) Test pass/fail criteria
- d) Test matrix and/or test schedule
- e) Test set-up/configuration
- f) Test predictions
- g) Identification of first time events
- h) Instrumentation
- i) Hardware pedigree
- j) Testing history
- k) Software pedigree
- l) Support equipment and spares
- m) Test procedures
- n) Safety issues/concerns
- o) Facilities
- p) Open items list (to include open action items from previous reviews)
- q) Risk assessment
- r) Action items, including identification of those actions items which must be completed prior to test commencement

4.4 Methods of Communication

The Contractor shall participate in weekly telecons with DARPA and the GAT, maintain the unclassified SharePoint site, utilize public key infrastructure encryption for unclassified FOUO email, and maintain the encrypted classified data links to DARPA and JHU/APL.

5.0 Integrated Logistics Support Requirements

6.1 Safety

The Contractor shall prepare the source data and develop the application for Interim Hazard Classifications for any hardware containing explosives or fuels for shipping authority. The Contractor shall deliver updates to the System Safety Hazard Assessment (SSHA) as required.

6.2 Reliability

LM shall maintain an estimate of system reliability based on JASSM measured performance and analysis of added or modified mission equipment.

6.3 Life cycle cost analysis

Deleted.

6.0 Reports and Deliverables

The Contract shall deliver the following:

OTHER REPORTS AND DELIVERABLES

Title	Final	Due
Contract Work Breakdown Structure	30 days ACA	
Master Plan and Integrated Master Schedule	30 days ACA	Monthly
Monthly Status Report		Monthly
Test and Evaluation Master Plan		12 Months ACA
System Safety Hazard Assessment		12 Months ACA
LRASM-A Surface-Launched System Specification	12 Months ACA	With final report
LRASM-A detail design drawings, interface specifications	12 Months ACA	With final report
Test Plan	60 days prior to each test event	
Test Report	30 days after each test event	
OFP and GNC software	With final report	
Final Report	30 days after Flight Test #2	


~ continued on next page ~

Appendix A

This Appendix defines the drawings that will not be provided to the Program Office (DARPA) as part of the design drawing package. There are three categories of drawings to be excluded from the drawing package:

A. Drawings of commercial parts such as screws, washers, nuts, adhesives, glues, etc. will be referenced in the parts list of the design drawing but no detail specification or drawing of these items shall be provided.

B. (b)(3):22 USC §2778(e) Sec 38(e)



C. Commercial Off the Shelf (COTS) subsystems such as the Altimeter, IMU, Weapon Data Link components not developed for LRASM-A, telemetry system components, and flight termination components.

~ End ~

LRASM-A
LIST OF GOVERNMENT FURNISHED EQUIPMENT/PROPERTY/SERVICES

Item #	Description	QTY	Need Date	Location Needed	Comments
1	SLRR Flight #1- Test Support	1	19 MACA	White Sands Missile Range (WSMR), NM	GFS during Flight Test
2	SLRR Flight #2- Test Support	1	21 MACA	WSMR	GFS during Flight Test
5	Rent free authorized usage of Govt. Property Accountable to USAF JASSM EMD, Lot 3-5, Lot 7, Lot 8, Lot 9, Lot 10, and ID/IQ 4 contract	NA	Contract Award	NA	JASSM production tools, etc required for build of LRASM Assets
6	KGV-135A TM Encryption Devices	2	10 MACA	TBD	Required for TIKs
7	KGR-135A TM Decryptors	2	10 MACA	TBD	Required for TM
8	GPS Keys	2	10 MACA	TBD	Required for GPS
9	6206257 BAND, SEPARATION, AFT END	2	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
10	6204777 COVER, CABLE, FORWARD	4	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
11	6206347 GUARD, CABLE	4	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
12	6206394 SCREW, CAP, SEPARATION BAND	2	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
13	6116556 PACKING, PREFORM, NOZZLE EXTENSION	2	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
14	6116572 CLIP, SEPARATION BAND	2	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
15	6206138 STRAP ASSEMBLY, BOLT CUTTER	2	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
16	6206182 RESTRAINT, VANE, TVC	2	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
17	6206403 BRACKET, RETAINING, CONDUIT	12	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
18	MS21083N08 NUT	24	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
19	MS16997-52 SCREW, CAP, SOCKET HEAD	4	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
20	MS16997-77L SCREW, CAP, SOCKET HEAD, SELF LOCKING	8	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
21	MS51045-64 SET SCREW, HEXAGON SOCKET	4	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
22	NAS1191-4P6 SCREW, FLAT FILLISTER HEAD, SELF LOCKING	24	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
23	MS51958-64 SCREW, MACHINE, PAN HEAD, CROSS RECESSED, CRES	4	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
24	MS15795-848 WASHER	24	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
25	NAS601-9P SCREW, MACHINE, PAN HEAD	8	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
26	6206330 BOLT, SHEAR, FLUSH HEAD	48	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
27	NAS1351-4LE8P SCREW, CAP, SOCKET HEAD	4	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster

28	6206160 DAC (6204910-2)	2	6 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
29	6206161 TVC (6204891)	2	6 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
30	6206178 ROCKET MOTOR (5925750)	2	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
31	6206167 TTA CABLE (6181091)	2	6 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
32	6206169 UMBILICAL CABLE (6181094)	2	6 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
33	7029425-3 COMPUTER CIRCUIT CARD ASSEMBLY	2	6 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
34	5982296-3 RESTRAINT STUDS	4	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
35	7316872 PAYLOAD CIRCUIT CARD ASSEMBLY	2	6 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
36	6206398-1 DAC CUSHION	2	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
37	6206398-2 DAC CUSHION	2	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
38	6206398-3 DAC CUSHION	2	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
39	6206416 DOUBLE COATED TAPE	AR	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
40	Plenum Cell Covers, MK 18 Mod 0	7	18 MACA	WSMR	GFE for Canister
41	Lifting Sling, Cell Cover, MK 147 Mod 0	1	18 MACA	WSMR	GFE for Canister
42	Canister Adapter, MK 18 Mod 1	7	18 MACA	WSMR	GFE for Canister
43	Lifting Beam, Canister Adapter, MK 50 Mod 0	1	18 MACA	WSMR	GFE for Canister
44	Canister Sill Assembly, MK 170	2	18 MACA	WSMR	GFE for Canister
45	Sill Assy Lift Fixture, Mk 166	1	18 MACA	WSMR	GFE for Canister
46	Cell Guide Assy, MK 115 Mod 0	1	18 MACA	WSMR	GFE for Canister
47	PHS&T Set	2	15 MACA	IMA, NUWC-Keyport, WA	GFE for Canister
48	WSMR Environmental DAS	1	18 MACA	WSMR	GFE for Canister
49	Loader, MK 33 Mod 0	1	13 MACA	BAE & IMA	GFE for Canister
50	Vertical Strongback, Mk 6	1	11 MACA	WSMR	GFE for Canister
51	Horizontal Strongback, Mk 3 Mod 1	1	11 MACA	WSMR	GFE for Canister
52	Tilt Fixture, Mk 23	1	11 MACA	WSMR	GFE for Canister
53	Universal Break Out Box, MK 674 Mod 1 (If using the Umbilical Connector for Wiring)	1	11 MACA	WSMR	GFE for Canister
54	Amptec Igniter Tester	1	11 MACA	WSMR	GFE for Canister
55	Use of WSMR Site Equipment/ Operations	N/A	SLRR #1: 17 - 19 MACA SLRR #2: 18 - 21 MACA	WSMR	GFE/GFS for Flight Tests
56	Use of MK 41 VLS government assets (canister production tooling) on site at BAE	N/A	Contract Award	BAE	GFE for Canister
57	6386908-9 Separation Nuts	4	11 MACA	IMA, NUWC-Keyport, WA	GFE for Booster
58	FTS Aft Container Strap	2	10 MACA	TBD	GFE for TIKs

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE U		PAGE OF PAGES 1 2	
2 AMENDMENT/MODIFICATION NO P00031		3 EFFECTIVE DATE 31-Oct-2012		4 REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5 PROJECT NO (If applicable)	
6 ISSUED BY DARPA CMO ATTN: (b)(6) 675 N. RANDOLPH STREET ARL NGTON VA 22203-2114		CODE HR0011		7 ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer 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) See Schedule							
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.							
X 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).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> 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 Control Number: jyeung1389							
(See Page 2)							
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)			
				TEL: (b)(6) EMAIL: (b)(6)			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				BY (b)(6)		31-Oct-2012	
				(Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

The purpose of this modification is to provide additional funding of \$125,942.00 to partially fund the Contract, specifically CLIN 0003. Accordingly, make the following changes:

SUMMARY OF CHANGES**SECTION G - CONTRACT ADMINISTRATION DATA**

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount of the Contract is increased by \$125,942.00 from \$109,449,670.00 to \$109,575,612.00.

SuBCLIN 000302:

AH: 1721319 W3DJ 255 RA353 0 068342 2D 000000 02911000LA80 068342 AA (CIN 00000000000000000000000000000000) is increased by \$125,942.00 from \$17,972,565.00 to \$18,098,507.00

Replace Section G-7 – Incremental Funding – with the following updated version:

G-7 Incremental Funding

(a) The Contract is incrementally funded in the amount of \$109,575,612.00. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of \$109, 575,612.00 shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

SECTION I - CONTRACT CLAUSES

Delete the following FAR clause:

52.232-20 Limitation of Cost APR 1984

Add the following FAR clause by reference:

52.232-22 Limitation of Funds APR 1984

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

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1

2

2. AMENDMENT/MODIFICATION NO. PU0032	3. EFFECTIVE DATE 02-Nov-2012	4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE	5. PROJECT NO. (If applicable)
6. ISSUED BY DARPA CMO ATTN: (b)(6) 375 N. RANDOLPH STREET ARLINGTON VA 22203-2114	CODE HR0011	7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907	CODE S1005A
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907		9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11) X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096 10B. DATED (SEE ITEM 13) X 29-Jun-2009	
CODE 04939		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 Offer ☐ is extended, ☐ is not extended.

Offer 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)

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.

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)

X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(a)

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Modification Control Number: jyeung1394

(See Page 2)

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) (b)(4)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)
15B. DATE SIGNED November 2012	16B. DATE SIGNED 11/2/12
15C. BY (Signature of Contracting Officer)	16C. BY (Signature of Contracting Officer)

APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

The purpose of this modification is to increase the overtime premium from \$100,000.00 to \$150,000.00 without any impact on the negotiated cost and fee of the Contract. Accordingly, make the following change:

SECTION I - CONTRACT CLAUSES

The following have been modified:

52.222-2 PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed **\$150,000.00** or the overtime premium is paid for work --

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall--

(1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

* Insert either "zero" or the dollar amount agreed to during negotiations. The inserted figure does not apply to the exceptions in paragraph (a)(1) through (a)(4) of the clause.

(End of clause)

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1 CONTRACT ID CODE		PAGE OF PAGES 1 2	
2 AMENDMENT/MODIFICATION NO P00033		3 EFFECTIVE DATE 07-Nov-2012		4 REQUISITION/PURCHASE REQ NO SEE SCHEDULE		5 PROJECT NO (If applicable)	
6 ISSUED BY DARPA CMO ATTN: (b)(6) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114		CODE HR0011		7 ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended Offer 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) See Schedule							
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.							
X 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).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> 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 Control Number: jyeung13103							
(See Page 2)							
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) (b)(6) TEL: (b)(6) EMAIL: christopher.glista@darpa.mil			
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA (b)(6) BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED 07-Nov-2012	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

The purpose of this modification is to reduce the total amount of SubCLIN 000302 (ACRN AH) by \$115,250. The SubCLIN 000302 amount was inadvertently overstated by \$115,250 in modification P00030. P00030 did not take into account funding in the amount of \$115,250 that had been obligated previously by Modification P00027 on SubCLIN 000302 (Arpa Order Z907/12). As a result of the reduction to SubCLIN 000302, the total obligated amount of funding available for this Contract is decreased from \$109,575,612.00 to \$109,460,362.00. Accordingly, make the following changes:

SECTION G - CONTRACT ADMINISTRATION DATA

- Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount of the Contract is decreased by \$115,250.00 from \$109,575,612.00 to \$109,460,362.00.

SubCLIN 000302:

ACRN AH 1721319 W3DJ 255 RA353 0 068342 2D 000000 02911000LA80 068342 AA
(CIN 00000000000000000000000000000000)
is decreased by \$115,250.00 from \$18,098,507.00 to \$17,983,257.00

- Revise the dollar amount stated in Section G-7 – Incremental Funding – from \$109,575,612 to \$109,460,362. Section G-7 is updated to read as follows:

G-7 Incremental Funding

- The Contract is incrementally funded in the amount of \$109,460,362.00. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of \$109,460,362.00 shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U	PAGE OF PAGES 1 3
2. AMENDMENT/MODIFICATION NO. P00034	3. EFFECTIVE DATE 30-Nov-2012	4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE	5. PROJECT NO. (If applicable) S1005A		
6. ISSUED BY DARPA CMO ATTN: (b)(6) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114	CODE HR0011	7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8607			
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8607			9A. AMENDMENT OF SOLICITATION NO.		
			9B. DATED (SEE ITEM 11)		
			X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096		
			X 10B. DATED (SEE ITEM 13) 29-Jun-2009		
CODE 04939		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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)					
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.					
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)					
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a)					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCI section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jyeung13154					
(See Pages 2 and 3)					
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 (b)(4)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
TEL: (b)(4)		TEL: (b)(6)		EMAIL: (b)(6)	
(Signature of person authorized to sign)		15C. DATE SIGNED 4/30/12		16B. UNIT: (b)(6)	
		BY (Signature of Contracting Officer)			

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

The purpose of this modification is to extend the date of definitization of the unpriced change order previously issued under Modification P00030 for the LRASM-A Phase 2 Surface Launched Risk Reduction effort. The modification also revises the total obligation amount in FAR 52.216-24 (see Modification P00033). Accordingly, make the following changes:

SECTION I - CONTRACT CLAUSES

- Revise FAR 52.216-24 to read as follows:

52.216-24 LIMITATION OF GOVERNMENT LIABILITY (APR 1984)

(a) In performing this contract, the Contractor is not authorized to make expenditures or incur obligations exceeding \$109,460,362.

(b) The maximum amount for which the Government shall be liable if this contract is terminated is \$109,460,362.

(End of clause)

- Revise DFARS 252.217-7027 to read as follows:

252.217-7027 CONTRACT DEFINITIZATION (OCT 1998)

(a) An unpriced change order is contemplated. The Contractor agrees to begin promptly negotiating with the Contracting Officer the terms of a definitive contract that will include (1) all clauses required by the Federal Acquisition Regulation (FAR) on the date of execution of the undefinitized contract action, (2) all clauses required by law on the date of execution of the definitive contract action, and (3) any other mutually agreeable clauses, terms, and conditions. The Contractor agrees to submit cost or pricing data supporting its proposal.

(b) The schedule for definitizing this contract is as follows:

Negotiations shall conclude by

(1) the earlier of January 31, 2013, or

(2) the date on which the amount of funds obligated under this change order is equal to more than 50 percent of the not-to-exceed price.

(c) If agreement on a definitive contract action to supersede this undefinitized contract action is not reached by the target date in paragraph (b) of this clause, or within any extension of it granted by the Contracting Officer, the Contracting Officer may, with the approval of the head of the contracting activity, determine a reasonable price or fee in accordance with subpart 15.4 and part 31 of the FAR, subject to Contractor appeal as provided in the Disputes clause. In any event, the Contractor shall proceed with completion of the contract, subject only to the Limitation of Government Liability clause.

(1) After the Contracting Officer's determination of price or fee, the contract shall be governed by--

(i) All clauses required by the FAR on the date of execution of this undefinitized contract action for either fixed-price or cost-reimbursement contracts, as determined by the Contracting Officer under this paragraph (c);

(ii) All clauses required by law as of the date of the Contracting Officer's determination; and

(iii) Any other clauses, terms, and conditions mutually agreed upon.

(2) To the extent consistent with paragraph (c)(1) of this clause, all clauses, terms, and conditions included in this undefinitized contract action shall continue in effect, except those that by their nature apply only to an undefinitized contract action.

(d) The definitive contract resulting from this undefinitized contract action will include a negotiated cost-plus-fixed-fee ceiling in no event to exceed \$147,858,850.

(End of clause)

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE U		PAGE OF PAGES 1 2		
2. AMENDMENT/MODIFICATION NO. P00035		3. EFFECTIVE DATE 31-Jan-2013		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO (b)(6) ATTN (b)(6) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD. MP 49 ORLANDO FL 32819-8907		CODE S1005A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				10B. DATED (SEE ITEM 13)			
CODE 04939				FACILITY CODE		X 29-Jun-2009	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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)							
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.							
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).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a)							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jyeung13364							
(See page 2)							
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 (b)(4)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
(b)(4)				TEL (b)(6)		EMAIL (b)(6)	
15B. (b)(4)		15C. DATE SIGNED 1-31-13		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				BY		(Signature of Contracting Officer)	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

The purpose of the modification is to modify the definitization schedule for the unpriced change order previously issued under Modification P00030 for the LRASM-A Phase 2 Surface Launched Risk Reduction effort. Accordingly, make the following revision:

SECTION I - CONTRACT CLAUSES

DFARS 252.217-7027 is revised to read as follows:

252.217-7027 CONTRACT DEFINITIZATION (OCT 1998)

(a) An unpriced change order is contemplated. The Contractor agrees to begin promptly negotiating with the Contracting Officer the terms of a definitive contract that will include (1) all clauses required by the Federal Acquisition Regulation (FAR) on the date of execution of the undefinitized contract action, (2) all clauses required by law on the date of execution of the definitive contract action, and (3) any other mutually agreeable clauses, terms, and conditions. The Contractor agrees to submit cost or pricing data supporting its proposal.

(b) The schedule for definitizing this contract is as follows:

Negotiations shall conclude by

(1) the earlier of February 28, 2013, or

(2) the date on which the amount of funds obligated under this change order is equal to more than 50 percent of the not-to-exceed price.

(c) If agreement on a definitive contract action to supersede this undefinitized contract action is not reached by the target date in paragraph (b) of this clause, or within any extension of it granted by the Contracting Officer, the Contracting Officer may, with the approval of the head of the contracting activity, determine a reasonable price or fee in accordance with subpart 15.4 and part 31 of the FAR, subject to Contractor appeal as provided in the Disputes clause. In any event, the Contractor shall proceed with completion of the contract, subject only to the Limitation of Government Liability clause.

(1) After the Contracting Officer's determination of price or fee, the contract shall be governed by--

(i) All clauses required by the FAR on the date of execution of this undefinitized contract action for either fixed-price or cost-reimbursement contracts, as determined by the Contracting Officer under this paragraph (c);

(ii) All clauses required by law as of the date of the Contracting Officer's determination; and

(iii) Any other clauses, terms, and conditions mutually agreed upon.

(2) To the extent consistent with paragraph (c)(1) of this clause, all clauses, terms, and conditions included in this undefinitized contract action shall continue in effect, except those that by their nature apply only to an undefinitized contract action.

(d) The definitive contract resulting from this undefinitized contract action will include a negotiated cost-plus-fixed-fee ceiling in no event to exceed \$147,858,850.

(End of clause)

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				I. CONTRACT ID CODE U	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. P00036		3. EFFECTIVE DATE 28-Feb-2013		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE	
5. PROJECT NO. (If applicable)					
6. ISSUED BY DARPA CMO (b)(6) ATTN (b)(6) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA LOCKHEED MARTIN ORLANDO 5600 SAND LAKE RD MP 49 ORLANDO FL 32819-8907	
CODE		CODE S1005A			
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
				X 10A. MOD OF CONTRACT/ORDER NO HR0011-09-C-0096	
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009	
CODE 04939		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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)					
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.					
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).					
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a)					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jyeung13449					
(See page 2)					
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.					
15B. (b)(4)		15C. DATE SIGNED 28 FEB 2013		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6) TEL (b)(6) EMAIL (b)(6)	
15D. (b)(4)		15E. DATE SIGNED 28 FEB 2013		16B. UNITED STATES OF AMERICA (b)(6)	
15F. (b)(4)		15G. DATE SIGNED 2/28/13		16C. DATE SIGNED 2/28/13	
15H. (b)(4)		15I. DATE SIGNED 28 FEB 2013		16D. DATE SIGNED 2/28/13	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

The purpose of the modification is to modify the definization schedule for the unpriced change order previously issued under Modification P00030 for the LRASM-A Phase 2 Surface Launched Risk Reduction effort. Accordingly, make the following revision:

SECTION I - CONTRACT CLAUSES

Revise DFARS 252.217-7027 to read as follows:

252.217-7027 CONTRACT DEFINITIZATION (OCT 1998)

(a) An unpriced change order is contemplated. The Contractor agrees to begin promptly negotiating with the Contracting Officer the terms of a definitive contract that will include (1) all clauses required by the Federal Acquisition Regulation (FAR) on the date of execution of the undefinitized contract action, (2) all clauses required by law on the date of execution of the definitive contract action, and (3) any other mutually agreeable clauses, terms, and conditions. The Contractor agrees to submit cost or pricing data supporting its proposal.

(b) The schedule for definitizing this contract is as follows:

Negotiations shall conclude by

- (1) the earlier of **March 31, 2013**, or
- (2) the date on which the amount of funds obligated under this change order is equal to more than 50 percent of the not-to-exceed price.

(c) If agreement on a definitive contract action to supersede this undefinitized contract action is not reached by the target date in paragraph (b) of this clause, or within any extension of it granted by the Contracting Officer, the Contracting Officer may, with the approval of the head of the contracting activity, determine a reasonable price or fee in accordance with subpart 15.4 and part 31 of the FAR, subject to Contractor appeal as provided in the Disputes clause. In any event, the Contractor shall proceed with completion of the contract, subject only to the Limitation of Government Liability clause.

(1) After the Contracting Officer's determination of price or fee, the contract shall be governed by--

(i) All clauses required by the FAR on the date of execution of this undefinitized contract action for either fixed-price or cost-reimbursement contracts, as determined by the Contracting Officer under this paragraph (c);

(ii) All clauses required by law as of the date of the Contracting Officer's determination; and

(iii) Any other clauses, terms, and conditions mutually agreed upon.

(2) To the extent consistent with paragraph (c)(1) of this clause, all clauses, terms, and conditions included in this undefinitized contract action shall continue in effect, except those that by their nature apply only to an undefinitized contract action.

(d) The definitive contract resulting from this undefinitized contract action will include a negotiated cost-plus-fixed-fee ceiling in no event to exceed \$147,858,850.

(End of clause)

~ End ~

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1 5	
2. AMENDMENT/MODIFICATION NO. P00037		3. EFFECTIVE DATE 19-Mar-2013		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO.(If applicable)	
6. ISSUED BY DARPA CMO ATTN: (b)(6) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA SPECIAL PROGRAMS SOUTH 14285 MIDWAY SUITE 450 ADDISON TX 75001		CODE S4802A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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) See Schedule							
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.							
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).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: DFARS 252.217-7027 and FAR 43.103(a)							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jyeung13414 <div style="text-align: center;">(See Pages 2 through 5)</div>							
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 (b)(4)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)		TEL: (b)(6)		EMAIL: (b)(6)	
15B. DATE SIGNED 19 MAR 2013		16B. DATE SIGNED (b)(6)		16C. DATE SIGNED 3/19/13			
(Signature of person authorized to sign)		(Signature of Contracting Officer)					

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

The purpose of this modification is to definitize the unpriced change order previously issued by Modification P00030 for the LRASM-A Surface Launched Risk Reduction (SLRR) effort. Accordingly, make the following changes:

SECTION A - SOLICITATION/CONTRACT FORM

The total amount of the Contract is (b)(4)

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0003

- The estimated total cost is (b)(4)
- The fixed fee of (b)(4) is added.
- The NTE constraint is removed.
- The total cost plus fixed fee amount of CLIN 0003 is \$54,354,363.00, (b)(4) that was stated in the previous Modification P00030.

<u>ITEM NO.</u>	<u>SUPPLIES/SERVICES</u>	<u>ESTIMATED</u>	<u>FIXED</u>	<u>TOTAL EST.</u>
		<u>COST</u>	<u>FEE</u>	<u>COST PLUS</u> <u>FIXED FEE</u>
0003	LRASM-A Phase 2 SLRR effort CPFF The Contractor shall perform Phase 2 Surface Launched Risk Reduction (SLRR) effort of the Long Range Anti-Ship Missile (LR-ASM) Demonstration Program in accordance with Attachment No. 9 - Phase 2 LRASM-A SLRR Statement of Work and Section C-1 of the Contract. Technical data, reports, and other deliverables are not separately priced and shall be provided to the Government in accordance with Sections C, F, and Attachment No. 9 of the Contract. FOB: Destination	(b)(4)		\$54,354,363.00 \$54,354,363.00

- SubCLINs 000303 and 000304 are added as follows:

<u>ITEM NO.</u>	<u>SUPPLIES/SERVICES</u>	<u>ESTIMATED COST</u>	<u>FIXED FEE</u>	<u>TOTAL EST. COST PLUS FIXED FEE</u>
000303	Funding for CLIN 0003 CPFF FOB: Destination PR No. HR001131368	\$0.00	\$0.00	\$0.00
	ACRN AJ			\$2,360,766.00
000304	Funding for CLIN 0003 CPFF FOB: Destination PR No. HR001131543	\$0.00	\$0.00	\$0.00
	ACRN AK			\$18,932,634.00

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for the Contract is increased by \$21,293,400.00 from \$109,460,362.00 to \$130,753,762.00.

SubCLIN 000303:

Funding on SubCLIN 000303 is initiated as follows:

ACRN: AJ

CIN: 00000000000000000000000000000000

Acctng Data: 012199 097 0400 000 N 20122013 D 1320 AMLRC
DARPA 255

2012.AIR-01.CORE.A

Increase: \$2,360,766.00

Total: \$2,360,766.00

SubCLIN 000304:

Funding on SubCLIN 000304 is initiated as follows:

ACRN: AK

CIN: 00000000000000000000000000000000

Acctng Data: 012199 097 0400 000 N 20132014 D 1320 AMLRC
DARPA 255

2013.AIR-01.CORE.A

Increase: \$18,932,634.00

Total: \$18,932,634.00

- Revise Section G-7 - Incremental Funding - as follows:

DELETE:

G-7 Incremental Funding

(a) The Contract is incrementally funded in the amount of \$109,460,363.00. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of \$109,460,363.00 shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

REPLACE WITH:

G-7 Incremental Funding

(a) The Contract is incrementally funded in the amount of \$130,753,762.00. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of \$130,753,762.00 shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

SECTION H – SPECIAL CONTRACT REQUIREMENTS

DELETE:

H-17 Consent to Subcontract

(a) Pursuant to the clause of the General Provisions entitled "Subcontracts (JUN 2007)," FAR 52.244-2(j), the Contracting Officer hereby consents to the placement of subcontract(s) with the following firm(s)/consultant(s) at the ceiling amounts specified:

<u>Subcontractor</u>	<u>Estimated Cost</u>
(b)(4)	

(b) Approval must be obtained from the Contracting Officer to increase/decrease the above listed subcontractors by greater than 10% from the level established in paragraph (a) above.

REPLACE WITH:

H-17 Consent to Subcontract

(a) Pursuant to the clause of the General Provisions entitled "Subcontracts (JUN 2007)," FAR 52.244-2(j), the Contracting Officer hereby consents to the placement of subcontract(s) with the following firm(s)/consultant(s) at the ceiling amounts specified:

<u>Subcontractor</u>	<u>Estimated Cost</u>
(b)(4)	

(b) Approval must be obtained from the Contracting Officer to increase/decrease the above listed subcontractors by greater than 10% from the level established in paragraph (a) above.

SECTION I - CONTRACT CLAUSES

The following clauses have been deleted:

52.216-24	Limitation Of Government Liability	APR 1984
252.217-7027	Contract Definition	OCT 1998

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

Delete the existing Attachment Nos. 9 and 10 that were previously incorporated into the Contract under Modification P00030. Replace said attachments with updated versions. Section J is therefore revised to read as follows:

- Attachment No. 1 (revised) - Statement of Work entitled, "Long Range Anti-Ship Missile (LR-ASM) Demonstration Program, Phase 1, dated October 29, 2009" (9 pages)
- Attachment No. 2 - Contracting Officer's Representative (COR) Designation Memorandum, dated June 9, 2009 (3 pages)
- Attachment No. 3 - Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software, Revision 2 (10 pages)
- Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs, dated May 18, 2009, as amended on June 15, 2009 (3 pages)
- Attachment No. 5 - Revised Contract Security Classification Specification, DD Form 254, dated August 13, 2010 (5 pages)
- Attachment No. 6 - LRASM-A Phase 2 Statement of Work, dated May 8, 2012 (17 pages)
- Attachment No. 7 - Government Furnished Equipment/Property (GFE/GFP) List, dated April 14, 2011 (3 pages)
- Attachment No. 8 - Statement of Work for Phase 2 Risk Reduction Enhancements, dated May 8, 2012 (4 pages)
- Attachment No. 9 - Statement of Work for LRASM-A Phase 2 Surface Launched Risk Reduction effort, updated March 18, 2013 (10 pages)
- Attachment No. 10 - Government Furnished Equipment/Property/Services (GFE/GFP/GFS) List, updated March 18, 2013 (2 pages)

Copies of the updated Attachment Nos. 9 and 10 are provided with this modification as Enclosures 1 and 2 respectively.

In consideration of the modification agreed to herein as a complete equitable adjustment for the Contractor's change proposal titled, "Long Range Anti-Ship Missile (LRASM) Variant A - Surface Launched - Phase 2 Surface Launched Risk Reduction," dated July 31, 2012 (amended), the Contractor hereby releases the Government from any and all liability under the Contract for further equitable adjustments attributable to such facts or circumstances giving rise to the proposal described above.

~ End ~

**STATEMENT OF WORK
FOR
LONG RANGE ANTI SHIP MISSILE (LRASM)
VARIANT A - SURFACE LAUNCHED

PHASE 2**

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1.0 Introduction

The purpose of this Statement of Work is to identify the requirements for Lockheed Martin (“Contractor”) to support the Defense Advanced Research Projects Agency (DARPA) in the Long Range Anti-Ship Missile (LRASM) program for a Surface Launched flight demonstration of LRASM-A. The system to be developed under this Statement of Work (SOW) shall be referred to as “LRASM-A.”

2.0 Supplies and Services

The Contractor shall furnish the necessary management, personnel, labor, services, documentation, materials, equipment, tools, facilities, and support services required to perform the tasks necessary to build, test, integrate, and demonstrate associated components for the development and demonstration of the LRASM-A prototype system in accordance with the provisions of this SOW and the contract.

The Contractor shall complete the detailed design of the surface launched configuration of the LRASM-A missile, and deliver the design except for specific COTS or MOTS items or subsystems not developed on this program. The detail design drawings shall be delivered in Contractor format on electronic media. The Contractor shall conduct demonstration and performance assessment of all subsystems through testing, simulation, or analogy as specified for each subsystem in this SOW. The Contractor shall develop and deliver design and transition support documentation as defined in this SOW.

The Contractor shall deliver the system detailed design, 6DOF simulation source code, and all requested test and simulation data. The Contractor shall participate in Government Assessment Team (GAT) technical interchanges as necessary to support independent government assessment of LRASM-A capability.

The Contractor shall complete the fabrication, integration, flight test qualification, and flight demonstration of no less than two LRASM-A weapons as specified in this SOW. Simulation and Hardware-in-the Loop (HWIL) testing shall be executed to verify system integration, provide risk reduction to flight test events, and conduct data collection for extrapolation to broader mission requirements. The Contractor shall develop and deliver design documentation as defined in this SOW. The Contractor shall procure, manufacture, assemble, and test the subsystems and test articles required to complete the flight tests.

3.0 Detailed description of supplies and services

3.1 *Surface Launched Configuration Development and Test*

3.1.1 Flight Vehicle

The Contractor shall perform the necessary activities to complete the design and manufacture of the flight vehicles for a MK-41 Vertical Launching System (VLS) compatible configuration, to include the following tasks:

3.1.1.1 Propulsion

The Contractor shall complete the detailed design of the propulsion subsystem. The Contractor shall assess the performance of all propulsion elements of the system including the egress solid rocket booster and air breathing engine that provides sustain propulsion.

(b)(4)

The Contractor shall fabricate and test any tooling required for the manufacture of the propulsion system. The Contractor shall procure, fabricate, and test any items required to meet the program test objectives and schedule. The engine shall pass an Acceptance Test Procedure (ATP) approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.1.1.2 Payload

The Contractor shall complete the detailed design of the inert configuration to be used for flight tests. The Contractor shall fabricate and test any tooling required for the manufacture of the inert warhead.

3.1.1.3 Airframe

The Contractor shall complete the detailed design of the (b)(4)

(b)(4) The Contractor shall assess the performance of the airframe and booster stack through scaled wind tunnel testing, static load testing, dynamic structural analysis and testing. All analysis reports and test reports shall be provided to the GAT electronically in Contractor format.

Requirements for weight and balance limits as well as test unique equipment such as telemetry and flight termination subsystems shall be accommodated in the design.

The Contractor shall fabricate and test any tooling required for the manufacture of the airframe. The Contractor shall procure, fabricate, and test any items required to meet the program test objectives and schedule. If required, all subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.1.1.4 Guidance, Navigation, and Control

The Contractor shall complete the detailed design of the operational flight program (OFP) for the missile to include all interfaces to the VLS and Mk-114 booster assembly. The Contractor shall demonstrate and assess the performance of the OFP by end-to-end closed-loop 6-DOF simulation and integrated HWIL simulation. All requested test data and OFP source code shall be provided electronically in Contractor format.

The Contractor shall perform the necessary flight simulations and safety footprint analysis to support range safety approval of the demonstration flights to be conducted at WSMR.

The Contractor shall provide to the GAT electronically in Contractor format an update to the OFP white-paper that provides the engineering equations, block diagrams, and text describing the design intent that is implemented in the final OFP version for all aspects of in-flight guidance, navigation, and control.

The Contractor shall fabricate and test any tooling required for the manufacture of the guidance and control avionics

3.1.1.5 Airborne Test Equipment

The Contractor shall complete the detailed design of the Telemetry System (TMS). The Contractor shall assess and test the performance of the TMS as necessary to complete flight and range qualification.

The Contractor shall provide detailed technical information on the Flight Termination System (FTS) and support the range safety approval process at WSMR.

The Contractor shall fabricate and test any tooling required for the manufacture of the TMS and FTS. The Contractor shall procure, fabricate, and test any items required to meet the program objectives and schedule FTS hardware shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.1.1.6 Integration, Assembly and Checkout

The Contractor shall integrate all subsystems and components into the flight vehicles. The Contractor shall complete Pre-Flight Certification Testing (PFCT) of each flight vehicle (LRASM-A cruise configuration). All test data and PFCT reports shall be provided electronically in Contractor format.

3.1.2 Range Safety Coordination

The Contractor shall develop the mission plan for each flight test and coordinate the plan with the Range Safety Officer (RSO) at WSMR.

3.1.3 Command Launch

The Contractor shall perform the necessary activities to complete the design of the Command Launch systems.

The Contractor shall complete the detailed design of the launch canister. The Contractor shall assess the performance of the canister by thermal and structural analysis of expected demonstration launch environments, analogy to operational launch canisters, prototype canister fit check, and canister forward cover push through testing. Assessment shall include all relevant ship integration and qualification requirements, including ability to achieve grade A shock certification. The Contractor shall complete the detailed design of a Mk 33 loader configuration to enable mating of flight system to the canister. All analysis reports shall be provided to the GAT electronically in Contractor format.

The Contractor shall complete the detailed design of the rocket booster interfaces, transition structure, and DAC. The Contractor shall assess the performance of the booster by structural analysis, aerodynamic analysis of separation events, end-to-end closed-loop 6-DOF simulation (to include booster and transition structure separation events), and integrated VLS HWIL simulation. The assessment shall include adequacy of thrust vector control to achieve a safe separation trajectory and meet vertical launch trajectory safety requirements, and booster adequacy to meet required end of boost flight conditions (altitude, range and speed). All analysis reports shall be provided to the GAT electronically in Contractor format.

The Contractor shall provide an assessment of the All-Up-Round (encanistered missile and booster, canister, and VLS interfaces) for MK-41 Baseline 7 compatibility. The assessment shall include electrical, mechanical, environmental, insensitive munitions, and safety factors.

The Contractor shall complete the detailed design of the mission planning and stimulation processes and systems sufficient to conduct the flight tests. The Contractor shall demonstrate and assess the performance of the test command launch systems by integrated SIL testing with VLS hardware. Demonstration and assessment shall include mission plan and stimulation requirements to support range safety coordination. All test reports shall be provided to the GAT electronically in Contractor format.

3.1.4 Systems Engineering

The Contractor shall refine and maintain system requirements, including traceability to component specifications, in a DOORS database and requirements verification matrix for the VLS configuration.

The Contractor shall complete the detailed design of the integrated system and present the design at an quarterly in-process reviews (IPR). (b)(4)

(b)(4) The Contractor shall develop and deliver a fully populated aerodynamic model in a 6-DOF simulation, and shall provide updated range and performance assessments. The simulation source code shall be provided electronically in Contractor format.

The Contractor shall update the HWIL simulation to reflect the VLS configuration weapon. The HWIL shall simulate external interfaces where practical and record hardware and software response from inserted subsystems or subsystem simulators. All requested test data and analysis reports shall be provided electronically in Contractor format.

The Contractor shall conduct end-to-end 6-DOF Monte-Carlo simulation and performance predictions at least four weeks prior to each flight test event and present the data at the Test Readiness Review (TRR) for each event. The Contractor shall compile mission success statistics and conduct failure analysis of identified failure modes. All data and test reports shall be provided electronically in Contractor format.

The Contractor shall utilize the HWIL facility to demonstrate system integration, resolve integration issues, demonstrate end-to-end mission simulation prior to flight test events, and evaluate system performance against the system specification.

The Contractor shall conduct comparative analysis after each test event using the 6-DOF monte carlo simulation and test event telemetry. Any significant deviation will be assessed for cause and performance implications. A Failure Review Board (FRB) shall be convened to determine root cause and corrective action for any significant deviation from expected performance. Corrective actions and system refinement for mission critical items will be implemented prior to subsequent test events requiring that system attribute. The comparative analysis and FRB status shall be documented in the test report. The GAT and DARPA will participate in the FRB process. All data and test reports shall be provided electronically in Contractor format.

The Contractor shall deliver updates to the System Specification. The Contractor shall deliver the final versions of the missile OFP and GNC source code.

3.1.5 Systems Test and Evaluation

The Contractor shall perform the necessary activities to conduct system testing, to include the following tasks:

The Contractor shall execute scaled wind tunnel testing of the system, including boost and cruise configurations. The Contractor shall provide a wind tunnel test plan, all requested test data, and a post-test report electronically in Contractor format.

The Contractor shall execute two surface launched flight tests at White Sands Missile Range (WSMR) (b)(4)

The test plan shall be delivered to the Government in Contractor format for approval. The government will approve or disapprove of the test plan within 30 days. The test report shall be provided to the GAT electronically in Contractor format.

The Contractor shall deliver an updated Test and Evaluation Master Plan (TEMP). The TEMP shall include summary of all testing completed to date, preliminary test planning, as well as anticipated certification testing required in EMD to achieve IOC.

The Contractor shall execute a forward cover push through test as risk reduction for the flights. The Contractor shall provide a push through test plan and post test report to the GAT electronically in Contractor format.. The Contractor shall conduct a canister prototype fit check. Results of the fit check shall be provided to the GAT electronically in Contractor format.

The Contractor shall fabricate and test any tooling required for the manufacture of the missile canister, booster adapter, and booster assembly. The Contractor shall procure, fabricate, and test the canister, booster adapter, and booster assembly required to meet the test schedule.

The Contractor shall transfer, to the GAT, the decrypted and decommutated telemetry data from each flight test NLT 5 working days after the Contractor receives the tapes in Orlando.

3.1.6 Auxiliary Equipment

The Contractor shall fabricate and test any auxiliary equipment required for system fabrication, integration, PHST, and flight test. The Contractor shall procure, fabricate, and test items required to meet the program test objectives and schedule. If required, all subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

4.0 Program Management

4.1 Program Management

The Contractor shall provide the managerial oversight and direction for the program. This will include planning, financial reporting, security, personnel, subcontract management and administration, procurement, production management, product assurance (quality), and technical direction. The Contractor shall manage all subcontracts.

The Contractor shall deliver a level three Work Breakdown Structure (WBS) and Integrated Master Schedule (IMS).

4.2 Master Schedule and Reports

The Contractor shall appoint a Program Manager to provide overall program direction with authority for technical, personnel, and all other resource allocations. The Contractor shall deliver a master plan and IMS. The Contractor shall provide monthly reports identifying any tasks that are behind schedule and reporting expenditures by WBS.

4.3 Technical Reviews

The Contractor shall conduct at least six In-Process Reviews (IPR) (approximately quarterly at its Orlando facilities. IPRs will be no more than two day events covering recent and pending test events and review of the design status. Test Readiness Reviews (TRR) will be one day events at the Contractor facilities for all test events defined in the TEMP (teleconference will be made available for unclassified portions if requested). A single Test Design Review (TDR) will be held for the flight tests that will be conducted at WSMR. The TDR will follow the same outline as a TRR, but will be conducted well in advance of the TRR to allow the Government time to impact the goals and execution plans for the tests.

The IPRs shall cover the following items:

- a) Program Overview
- b) Requirements, interfaces, and TPMs
- c) Requirements flowdown and allocation
- d) System detail design review
- e) System simulation results
- f) Developmental test results
- g) Safety
- h) Hardware, software, and support equipment
- i) Risk/opportunity management
- j) Schedule review

The Contractor shall conduct TRRs for the test activities defined in this SOW at its Orlando facilities. The TDR shall also be conducted the Contractor's Orlando facility.

The TDR and all TRRs shall cover the following items:

- a) Test overview - Include test objective/purpose, description, time, and location
- b) Test team - Identify test conductor and support team
- c) Test pass/fail criteria
- d) Test matrix and/or test schedule
- e) Test set-up/configuration
- f) Test predictions
- g) Identification of first time events
- h) Instrumentation
- i) Hardware pedigree
- j) Testing history
- k) Software pedigree
- l) Support equipment and spares
- m) Test procedures
- n) Safety issues/concerns
- o) Facilities
- p) Open items list (to include open action items from previous reviews)
- q) Risk assessment
- r) Action items, including identification of those actions items which must be completed prior to test commencement

4.4 Methods of Communication

The Contractor shall participate in weekly telecons with DARPA and the GAT, maintain the unclassified SharePoint site, utilize public key infrastructure encryption for unclassified FOUO email, and maintain the encrypted classified data links to DARPA and JHU/APL.

5.0 Integrated Logistics Support Requirements

6.1 Safety

The Contractor shall prepare the source data and develop the application for Interim Hazard Classifications for any hardware containing explosives or fuels for shipping authority. The Contractor shall deliver updates to the System Safety Hazard Assessment (SSHA) as required.

6.2 Reliability

LM shall maintain an estimate of system reliability based on JASSM measured performance and analysis of added or modified mission equipment.

6.3 Life cycle cost analysis

Deleted.

6.0 Reports and Deliverables

The Contractor shall deliver the following:

OTHER REPORTS AND DELIVERABLES

Title	Draft	Final	Update
Contract Work Breakdown Structure		30 days ACA	
Master Plan and Integrated Master Schedule		30 days ACA	Monthly
Monthly Status Report			Monthly
Test and Evaluation Master Plan			12 Months ACA
System Safety Hazard Assessment			12 Months ACA
LRASM-A Surface-Launched System Specification		12 Months ACA	With final report
LRASM-A detail design drawings, interface specifications		12 Months ACA	With final report
Test Plan		60 days prior to each test event	
Test Report	30 days after each test event for quick look report only	60 days after each test event	
OFP and GNC software		With final report	
Final Report	30 days after Flight Test #2 for Quick look only	60 days after Flight Test #2	

Appendix A

This Appendix defines the drawings that will not be provided to the Program Office (DARPA) as part of the design drawing package. There are three categories of drawings to be excluded from the drawing package:

- A. Drawings of commercial parts such as screws, washers, nuts, adhesives, glues, etc. will be referenced in the parts list of the design drawing but no detail specification or drawing of these items shall be provided.

- B.

- C. Commercial Off the Shelf (COTS) subsystems such as the Altimeter, IMU, Weapon Data Link components not developed for LRASM-A, telemetry system components, and flight termination components.

LRASM-A
LIST OF GOVERNMENT FURNISHED EQUIPMENT/PROPERTY/SERVICES

Item No.	Description	Qty.	Location Needed	Need Date	Comments
1	SLRR Flight #1- Test Support	1	White Sands Missile Range (WSMR), NM	19 MACA	GFS during Flight Test
2	SLRR Flight #2- Test Support	1	WSMR	21 MACA	GFS during Flight Test
3	Rent free authorized usage of Govt. Property Accountable to USAF JASSM EMD, Lot 3-5, Lot 7, Lot 8, Lot 9, Lot 10, and ID/IQ 4 contract	NA	NA	Contract Award	JASSM production tools, etc required for build of LRASM Assets
4	KGV-135A TM Encryption Devices	2	TBD	10 MACA	Required for TIKs
5	KGR-135A TM Decryptors	2	TBD	10 MACA	Required for TM
6	GPS Keys	2	TBD	10 MACA	Required for GPS
7	FTS Aft Container Strap	2	TBD	10 MACA	GFE for TIKs
8	KR-1100AAU, NiCad Battery Cells	184	LMMFC	11 MACA	GFE for TIKs- USAF LTB Inventory
9	6206155 REASSEMBLY KIT, VLA	2	IMA, NUWC-Keyport, WA	13 MACA	GFE for Booster
10	6204868 ASSEMBLY KIT, VLA	2	IMA, NUWC-Keyport, WA	13 MACA	GFE for Booster
11	6206160 DAC (6204910-2)	2	LM-Akron	6 MACA	GFE supplied to Akron for upgrades
12	6206161 TVC (6204891)	2	LM-Akron	6 MACA	GFE supplied to Akron for upgrades
13	6206178 ROCKET MOTOR (5925750)	2	IMA, NUWC-Keyport, WA	13 MACA	GFE for Booster
14	6206167 TTA CABLE (6181091)	2	IMA, NUWC-Keyport, WA	13 MACA	GFE for Booster
15	6206169 UMBILICAL CABLE (6181094)	2	IMA, NUWC-Keyport, WA	13 MACA	GFE for Booster
16	7029425-3 COMPUTER CIRCUIT CARD ASSEMBLY	2	LM-Akron	6 MACA	GFE supplied to Akron for upgrades
17	5982296-3 RESTRAINT STUDS	4	BAE	13 MACA	GFE for Canister
18	7316872 PAYLOAD CIRCUIT CARD ASSEMBLY	2	LM-Akron	6 MACA	GFE supplied to Akron for upgrades
19	6206398-1 DAC CUSHION	2	IMA, NUWC-Keyport, WA	13 MACA	GFE for Booster
20	6206398-2 DAC CUSHION	2	IMA, NUWC-Keyport, WA	13 MACA	GFE for Booster
21	6206398-3 DAC CUSHION	2	IMA, NUWC-Keyport, WA	13 MACA	GFE for Booster
22	6206416 DOUBLE COATED TAPE	AR	IMA, NUWC-Keyport, WA	13 MACA	GFE for Booster
23	6692939-29, MK 21 Mod 1 PHS&T set	2	U.S. Navy (via PEO IWS3L)	16 MACA	GFE for Canister
24	5599373-29, Plenum Cell Covers, MK 18 Mod 0	7	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
25	6169840-9, Lifting Sling, Cell Cover, MK 147 Mod 0	1	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
26	5599372-49, Canister Adapter, MK 18 Mod 1	7	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
27	6912290-9, Seal Assembly (spares for MK 18 & MK 165)	4	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
28	5599196, Lifting Beam, Canister Adapter, MK 50 Mod 0	1	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
29	5599783-29, Canister Sill Assembly, MK 165 Mod 1	2	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
30	5599994-19, Sill Assy Lift Fixture, Mk 166	1	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
31	5497614-9, Cell Guide Assy, MK 115 Mod 0	1	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
32	BAE Environmental DAS	1	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR

HR0011-09-C-0096, P00037 (Enclosure 2)
Attachment 10 - LRASM-A GFP List
March 18, 2013

LRASM-A
LIST OF GOVERNMENT FURNISHED EQUIPMENT/PROPERTY/SERVICES

Item No.	Description	Qty.	Location Needed	Need Date	Comments
33	5167396, Loader, MK 33 Mod 0	1	U.S. Navy (via PEO IWS3L)	16 MACA	BAE & IMA
34	7116001-9, Vertical Strongback, Mk 6	1	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
35	7251117-9, Horizontal Strongback, Mk 3 Mod 1	1	U.S. Navy (via PEO IWS3L)	18 MACA	IMA & WSMR
36	5167473, Tilt Fixture, Mk 23	1	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
37	7379010, Universal Break Out Box (UBOB), MK 674 Mod 1 (If using the Umbilical Connector for Wiring)	1	U.S. Navy (via PEO IWS3L)	11 MACA	Fit Check & IMA & WSMR
38	630-BN, Amptec Igniter Tester (or equivalent Space E or Valhalla)	1	U.S. Navy (via PEO IWS3L)	11 MACA	Fit Check & IMA & WSMR
39	Use of WSMR Site Equipment/ Operations	AR	WSMR	19 MACA	WSMR
40	Cell Sealing Fixture, Module (custom test only fixture)	1	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
41	MK 41 VLS Module (D.R. Ray / LC-35N)	1	U.S. Navy (via PEO IWS3L)	19 MACA	WSMR
42	Use of the canister and adapter handling equipment including the horizontal strongback, vertical strongback, and adapter lifting equipment at BAE Systems to conduct the lift point load tests canister to module fit check, and missile to canister fit check	AR	U.S. Navy (via PEO IWS3L)	13 MACA	BAE Systems
43	use of the MK41 VLS Module at BAE Systems to conduct the canister to module fit check	AR	U.S. Navy (via PEO IWS3L)	13 MACA	BAE Systems
44	Use of VLA IMA Site Equipment Operations		NUWC Keyport	13 MACA	GFE for Canister/Booster
45	6206366, IOM Rocket Motor	1	BAE Fit Check	11 MACA	GFE supplied to BAE for fit checks
46	Use of VLA government assets (VLA production tooling) on site at LM MST - Akron	1	LM-Akron	6 MACA	GFE tooling/test equipment for DAC/TVC upgrades
47	Launcher Antenna System (Consists of): 1. FTS Amplifier (BAE Dwg. 96-10374) 2. Celwave Omni Antenna (BA6012-0, 425Mhz) 3. Antenna Mount 4. Cable from LAS antenna to UHF amplifier - RG-142, 75Ft, N to SMA 5. Cable from UHF amp to Canister- RG-142, 12Ft, N to N	1	U.S. Navy (via PEO IWS3L)	19 MACA	GFE for WSMR. BAE has a mobile set.
48	6386908-9 Separation Nuts	4	IMA, NUWC-Keyport, WA	13 MACA	GFE for Booster
49	6116448, Bolt Cutter	2	IMA, NUWC-Keyport, WA	13 MACA	GFE for Booster
50	6206385, IOM TTA Cable	1	BAE Fit Check	11 MACA	GFE supplied to BAE for fit checks
51	6206386, IOM Umbilical Cable	1	BAE Fit Check	11 MACA	GFE supplied to BAE for fit checks
52	6212882, Pull through tooling	1	BAE Fit Check	11 MACA	GFE supplied to BAE for fit checks
53	6564567-1, Canister shorting plugs	1	BAE Fit Check	11 MACA	GFE supplied to BAE for fit checks
54	6564567-2, Canister shorting plugs	1	BAE Fit Check	11 MACA	GFE supplied to BAE for fit checks
55	6564567-3, Canister shorting plugs	2	BAE Fit Check	11 MACA	GFE supplied to BAE for fit checks
56	6206381-3, IOM DAC	1	BAE Fit Check	11 MACA	GFE supplied to BAE for fit checks
57	6206378, IOM TVC	1	BAE Fit Check	11 MACA	GFE supplied to BAE for fit checks

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				I. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. P00038		3. EFFECTIVE DATE 28-Mar-2013		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO.(if applicable)	
6. ISSUED BY DARPA CMO ATTN: (b)(6) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA SPECIAL PROGRAMS SOUTH 14285 MIDWAY SUITE 450 ADDISON TX 75001		CODE S4802A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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) See Schedule							
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.							
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).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a)							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jyeung13543 <div style="text-align: center;">(See Pages 2 and 3)</div>							
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) (b)(4)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
15B. (b)(4)				TEL: (b)(6)		EMAIL: (b)(6)	
15C. DATE SIGNED 27 MAR 2013		16B. (b)(6)		16C. DATE SIGNED 3/28/13			
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

The purpose of this modification is to add RF Sensor Re-programming Cables work within the general scope of the existing Contract under CLIN 0002 for LRASM-A Phase 2 as reference to the Contractor's letter (control number LR-OGC-2013-000002-0) dated January 23, 2013. Accordingly, make the following changes:

SECTION A - SOLICITATION/CONTRACT FORM

- The total amount of the Contract is increased by \$49,153.00 from \$144,642,776.00 to \$144,691,929.00.

SECTION B - SUPPLIES OR SERVICES AND PRICES

- CLIN 0002

The estimated cost is (b)(4)

The fixed fee is (b)(4)

The total cost plus fixed fee amount of this line item is increased by \$49,153.00 from \$80,302,360.00 to \$80,351,513.00.

- SubCLIN 000208 is added as follows:

<u>ITEM NO.</u>	<u>SUPPLIES/SERVICES</u>	<u>ESTIMATE</u> <u>D COST</u>	<u>FIXED</u> <u>FEE</u>	<u>TOTAL EST. COST</u> <u>PLUS FIXED FEE</u>
000208	Funding for CLIN 0002 CPFF FOB: Destination PR No. HR001132448 ACRN AK	\$0.00	\$0.00	\$0.00
				\$49,153.00

SECTION G - CONTRACT ADMINISTRATION DATA

- Accounting and Appropriation
Summary for the Payment Office

As a result of this modification, the total funded amount for the Contract is increased by \$49,153.00 from \$130,753,762.00 to \$130,802,915.00.

Funding on SubCLIN 000208 is initiated as follows:

ACRN: AK

CIN: 00000000000000000000000000000000

Acctng Data: 012199 097 0400 000 N 20132014 D 1320 AMLRC
DARPA 255

2013.AIR-01.CORE.A

Increase: \$49,153.00

Total: \$49,153.00

- Revised Section G-7 – Incremental Funding – to read as follows:

G-7 Incremental Funding

(a) The Contract is incrementally funded in the amount of \$130,802,915.00. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of \$130,802,915.00 shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

- Revise Section J to read as follows:

- Attachment No. 1 (revised) - Statement of Work entitled, "Long Range Anti-Ship Missile (LR-ASM) Demonstration Program, Phase I, dated October 29, 2009" (9 pages)
- Attachment No. 2 - Contracting Officer's Representative (COR) Designation Memorandum, dated June 9, 2009 (3 pages)
- Attachment No. 3 - Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software, Revision 2 (10 pages)
- Attachment No. 4 - Advance Agreement to Incur Pre-Award Costs, dated May 18, 2009, as amended on June 15, 2009 (3 pages)
- Attachment No. 5 - Revised Contract Security Classification Specification, DD Form 254, dated August 13, 2010 (5 pages)
- Attachment No. 6 - LRASM-A Phase 2 Statement of Work, updated March 21, 2013 (17 pages)**
- Attachment No. 7 - Government Furnished Equipment/Property (GFE/GFP) List, dated April 14, 2011 (3 pages)
- Attachment No. 8 - Statement of Work for Phase 2 Risk Reduction Enhancements, dated May 8, 2012 (4 pages)
- Attachment No. 9 - Statement of Work for LRASM-A Phase 2 Surface Launched Risk Reduction effort, updated March 18, 2013 (10 pages)
- Attachment No. 10 - Government Furnished Equipment/Property/Services (GFE/GFP/GFS) List, updated March 18, 2013 (2 pages)

ATTACHMENT NO. 6 – LRASM-A PHASE 2 STATEMENT OF WORK

- Revise Task 3.2.1.6 to read as follows:

3.2.1.6 Integration, Assembly, Test and Checkout

The Contractor shall integrate all subsystems and components into the flight vehicles. The contractor shall design, document, and install an RF Sensor re-programming cable into each of the flight vehicles. The contractor shall provide the externally-accessible connector for the re-programming cable; the RF Sensor connector and associated wiring will be provided as a part of the GFE RF Sensor. The Contractor shall complete Pre-Flight Certification Testing (PFCT) of each flight vehicle. All test data and PFCT reports shall be provided electronically in Contractor format.

- A copy of the updated Attachment No. 6 is provided with this modification as Enclosure 1.

~ End ~

**STATEMENT OF WORK
FOR
LONG RANGE ANTI SHIP MISSILE (LRASM)
VARIANT A - AIR LAUNCHED
PHASE 2**

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1.0 Introduction

The purpose of this Statement of Work is to identify the requirements for Lockheed Martin (“Contractor”) to support the Defense Advanced Research Projects Agency (DARPA) in the Long Range Anti-Ship Missile (LRASM) program for an air launched flight demonstration of LRASM-A. The system to be developed under this Statement of Work (SOW) shall be referred to as “LRASM-A.”

The program is divided into two phases. Phase 1 culminated in a Preliminary Design Review (PDR) of a ship launched version. Phase 2 will complete a Critical Design Review (CDR) of the air launched version, and following Government approval of the CDR, will execute a flight test series of the air launched LRASM-A version. This SOW covers only the activity to be completed in Phase 2.

2.0 Supplies and Services

The Contractor shall furnish the necessary management, personnel, labor, services, documentation, materials, equipment, tools, facilities, and support services required to perform the tasks necessary to build, test, integrate, and demonstrate associated components for the development and demonstration of the LRASM-A prototype system in accordance with the provisions of this SOW and the contract.

Pre-CDR

Prior to CDR, the Contractor shall complete the detail design of the LRASM-A weapon system, and deliver the design except for specific COTS or MOTS items or subsystems not developed on this program as specified in Appendix A. The detail design drawings other than those specified in Appendix A shall be delivered in Contractor format on electronic media. The Contractor shall conduct demonstration and performance assessment of all subsystems through testing, simulation, or analogy as specified for each subsystem in this SOW. The Contractor shall conduct system operational effectiveness assessment relative to DARPA defined threats, scenarios, and environments. The Contractor shall develop and deliver design and transition support documentation as defined in this SOW. The Contractor shall execute long lead procurements as defined in Appendix B to support LRASM-A post-CDR test events. Any additional long-lead items to be procured prior to CDR must be approved by the DARPA program manager and COR via email concurrence to the Contractor’s POC.

The Contractor shall deliver the system detail design, 6DOF simulation source code, and all requested test and simulation data. The Contractor shall participate in Government Assessment Team (GAT) technical interchanges as necessary to support independent government assessment of LRASM-A capability.

Post-CDR

The Contractor shall complete the fabrication, integration, flight test qualification, and flight demonstration of no less than two LRASM-A weapons as specified in this SOW. Simulation, Hardware-in-the Loop (HWIL) testing, and captive carry testing shall be executed to verify system integration, provide risk reduction to flight test events, and conduct data collection for extrapolation to broader mission requirements. Operational effectiveness estimates will be updated based on test results. The Contractor shall develop and deliver design documentation as defined in this SOW. The Contractor shall procure, manufacture, assemble, and test the subsystems and test articles required to complete the flight tests.

The Contractor shall deliver the system as built detail design, interfaces, source code, and all test and simulation data. The Contractor shall participate in GAT technical interchanges as necessary to support independent government assessment of LRASM-A capability.

3.0 Detailed description of supplies and services

3.1 *Pre-CDR*

3.1.1 Flight Vehicle

Prior to CDR, the Contractor shall perform the necessary activities to complete the design of the flight vehicles, to include the following tasks:

3.1.1.1 *Propulsion*

The Contractor shall complete the detail design of the propulsion subsystem. The Contractor shall assess the performance of the propulsion subsystem and provide the analysis report electronically in mutually agreeable format.

DARPA and the Contractor agree to use the alternator as is from JASSM ER design for LRASM-A.

The contractor shall complete a detail design of the fuel system modifications that will be required to provide space for the RF sensor (RFS).

The Contractor shall develop any long lead tooling required for the manufacture of the propulsion and fuel systems. The Contractor shall order long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.2 *Payload*

The Contractor shall complete the detail design of the tactical warhead and fuze, and of the inert configuration to be used for Phase 2 flight tests. The Contractor shall develop any long lead tooling required for the manufacture of the inert warhead. The Contractor shall order long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.3 *Airframe*


The Contractor shall complete the detail design of the airframe. The Contractor shall assess the performance of the airframe through scaled wind tunnel testing and dynamic structural analysis and testing. All analysis reports and test reports along with requested test data, shall be provided electronically in Contractor format.

Requirements for weight and balance limits as well as test unique equipment such as telemetry and flight termination subsystems shall be accommodated in the design.


The Contractor shall develop any long lead tooling required for the manufacture of the airframe. The Contractor shall order the long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.1.4 *Guidance, Navigation, and Control*

(b)(3):22 USC §2778(e) Sec 38(e)



(b)(3)22 USC §2778(e) Sec 38(e)



3.1.1.5 Airborne Test Equipment

The Contractor shall complete the detail design of the Telemetry System (TMS). The Contractor shall assess and test the performance of the TMS as necessary to complete flight and range qualification.

The Contractor shall provide detailed technical information on the JASSM-ER Flight Termination System (FTS) and support the range safety approval process at Point Mugu.

The Contractor shall develop any long lead tooling required for the manufacture of the TMS. The Contractor shall order the long lead items required to meet the post-CDR test schedule as shown in Appendix B.

3.1.2 Systems Engineering

The Contractor shall refine and maintain system requirements, including traceability to component specifications, in a DOORS database and requirements verification matrix. The Contractor shall finalize the CONOPS. The Contractor shall develop and fully implement tactics to maximize mission effectiveness, including autonomous dynamic routing, threat avoidance, altitude control, threat response, defensive features, and terminal weaponneering.

The Contractor shall support DARPA and the USN in the process of defining and designing the system protection requirements for LRASM-A. The design activity will be dependent on the definition derived with DARPA and USN. To the extent that the design requirements are defined in the first 3 months of the contract and they are non-intrusive changes to items already being designed or modified they will be incorporated. Extensive changes or changes requested after the system design is underway may require scope changes to the contract.

The Contractor shall complete the detail design of the integrated system and present the design at a CDR. The Contractor shall develop and deliver weapon external ICDs and internal subsystem ICDs to at least WBS level three. The Contractor shall demonstrate and assess the performance of the integrated system by system level multispectral signature modeling, end-to-end closed-loop 6-DOF simulation, integrated HWIL simulation, RCS pole model measurement, and captive carry testing of the avionics suite. All requested test data and analysis reports shall be provided electronically in Contractor format. The Contractor shall develop and deliver a fully populated aerodynamic model in a 6-DOF simulation, and shall provide updated range and performance assessments. The simulation source code shall be provided electronically in Contractor format.

The Contractor shall develop a HWIL simulation. The HWIL shall simulate external interfaces where practical and record hardware and software response from inserted subsystems or subsystem simulators. All requested test data and analysis reports shall be provided electronically in Contractor format.

The Contractor shall deliver a Critical Design Report consisting of the Critical Design Review presentation and the detail design drawing package. The Contractor shall deliver updates to the System Specification, Concept of Operations (CONOPS), and Operational Effectiveness Report (OER). The OER shall use the reliability predictions from Phase 1 as no reliability predictions are part of Phase 2 activity.

3.1.3 Systems Test and Evaluation

The Contractor shall perform the necessary activities to conduct system testing, to include the following tasks:

The Contractor shall execute scaled wind tunnel testing of the system. The Contractor shall provide a wind tunnel test plan, all requested test data, and a post-test report electronically in Contractor format.

The Contractor shall develop a captive carry capability for the missile avionics suite. The captive carry unit shall include representative prototypes of all GNC hardware and software. Captive carry testing shall be completed over representative missile trajectories in operationally representative environments, including cooperative military targets and targets of opportunity to the extent possible within flight safety allowances. Prior to CDR, the Contractor shall conduct at least one captive carry test that demonstrates the integrated avionics suite operation. The Contractor shall provide a captive carry test plan, all requested test data, and post-test report for each captive carry series electronically in Contractor format.

The Contractors shall conduct a RCS pole model test of the entire missile body with all tactical external features included.

The Contractor shall deliver an updated Test and Evaluation Master Plan (TEMP). The TEMP shall include summary of all testing completed to date, preliminary test planning for all post-CDR events, as well as anticipated certification testing required in EMD to achieve IOC.

3.2 Post-CDR

3.2.1 Flight Vehicle

The Contractor shall perform the necessary activities to complete and manufacture flight vehicles, to include the following tasks:

3.2.1.1 Propulsion

The Contractor shall fabricate and test any tooling required for the manufacture of the propulsion system. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an Acceptance Test Procedure (ATP) approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.2 Payload

The Contractor shall fabricate and test any tooling required for the manufacture of the inert warhead. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.3 Airframe

The Contractor shall fabricate and test any tooling required for the manufacture of the airframe. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.4 Guidance, Navigation, and Control (GNC)

(b)(3)22 USC §2778(e) Sec 38(e)

3.2.1.5 Airborne Test Equipment

The Contractor shall fabricate and test any tooling required for the manufacture of the TMS and FTS. The Contractor shall procure, fabricate, and test any items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

3.2.1.6 Integration, Assembly, Test and Checkout

The Contractor shall integrate all subsystems and components into the flight vehicles. The contractor shall design, document, and install an RF Sensor re-programming cable into each of the flight vehicles. The contractor shall provide the externally-accessible connector for the re-programming cable; the RF Sensor connector and associated wiring will be provided as a part of the GFE RF Sensor. The Contractor shall complete Pre-Flight Certification Testing (PFCT) of each flight vehicle. All test data and PFCT reports shall be provided electronically in Contractor format.

3.2.2 Range Safety Coordination

The Contractor shall develop the mission plan for each flight test and coordinate the plan with the Range Safety Officer (RSO) at Point Mugu.

3.2.3 Systems Engineering

The Contractor shall complete the verification matrix of requirements. The Contractor shall maintain the specification tree, requirements database, and verification matrix.

The Contractor shall conduct end-to-end 6-DOF Monte-Carlo simulation and performance predictions at least four weeks prior to each flight test event and present the data at the Test Readiness Review (TRR) for each event. The Contractor shall compile mission success statistics and conduct failure analysis of identified failure modes. All data and test reports shall be provided electronically in Contractor format.

The Contractor shall utilize the HWIL facility to demonstrate system integration, resolve integration issues, demonstrate end-to-end mission simulation prior to flight test events, and evaluate system performance against the system specification.

The contractor shall support Systems Integration Lab (SIL) testing at the Boeing B-1 SIL prior to each flight test (unless there are no software changes).

The Contractor shall conduct captive carry tests of a fully integrated avionics suite to demonstrate and assess system performance, and to collect data against representative targets to verify and improve the end-to-end 6-DOF simulation and subsystem performance.

The Contractor shall conduct comparative analysis after each test event using the 6-DOF monte carlo simulation and test event telemetry. Any significant deviation will be assessed for cause and performance implications. A Failure Review Board (FRB) shall be convened to determine root cause and corrective action for any significant deviation from expected performance. Corrective actions and system refinement for mission critical items will be implemented prior to subsequent test events requiring that system attribute. The comparative analysis and FRB status shall be documented in the test report. The GAT and DARPA will participate in the FRB process. All data and test reports shall be provided electronically in Contractor format.

Following the final demonstration event, the Contractor shall support final system effectiveness assessments by the GAT. The Contractor shall deliver updates to the System Specification.

The Contractor shall deliver any updates to the detail design drawings delivered prior to CDR. The Contractor shall deliver the final versions of the missile OFP and GNC source code.

3.2.4 Systems Test and Evaluation

The contractor will conduct two flight tests in Phase2 that will incrementally demonstrate the missile's capability to launch from a B1-B, navigate to the target area, find the target, and defeat the target. Both flights will be conducted at the Point Mugu Sea Range (PMSR).

The Contractor shall execute a free flight transition test (FFTT) demonstrating the ability of the weapon to transition from captive carriage on the B1-B to controlled free flight with engine running. Secondary objectives of the FFTT shall include target acquisition and track, receipt of in flight target updates (IFTUs) using the WDL, autonomous ingress to the target (as permitted by the range), terminal guidance to the target, and transmission of bomb hit indication (BHI) information over the WDL. The test plan shall be provided to DARPA in Contractor format for approval, and the test report shall be delivered to the GAT electronically in Contractor format.

The Contractor shall execute a final end-to-end integrated flight demonstration (IFD) of LRASM-A system capabilities. Primary objectives of the IFD shall include target acquisition and track, receipt of IFTUs using the WDL, autonomous ingress to the target (as permitted by the range), terminal guidance to the target, and transmission of BHI information over the WDL, followed by target impact. The test plan shall be provided to DARPA in Contractor format for approval, and the test report shall be delivered electronically in Contractor format.

The Contractor shall conduct four Missile Avionics Simulators (MAS) flight tests events to reduce risk for the sensor suite and avionics and rehearse the FFTT and IFD. The last two MAS flight test events will be conducted at PMSR and will include flights against the same targets that will be included in the IFD.

The Contractor shall electronically transfer to the GAT the decrypted and decommutated telemetry data from each flight test NLT 5 working days after the Contractor receives the tapes in Orlando.

3.2.5 Auxiliary Equipment

The Contractor shall fabricate and test any auxiliary equipment required for system fabrication, integration, PHST, and flight test. The Contractor shall procure, fabricate, and test items required to meet the post-CDR test objectives and schedule. All subsystems shall pass an ATP approved by DARPA that includes appropriate environmental screening. All test data and test reports shall be provided electronically in Contractor format.

4.0 Period of Performance

The period of performance for Phase 2 shall be 33 months.

5.0 Program Management

5.1 Program Management

The Contractor shall provide the managerial oversight and direction for the program. This will include planning, financial reporting, security, personnel, subcontract management and administration, procurement, production management, product assurance (quality), and technical direction. The Contractor shall manage all subcontracts.

The Contractor shall deliver a level four Work Breakdown Structure (WBS) and Integrated Master Schedule (IMS).

5.2 Master Schedule and Reports

The Contractor shall appoint a Program Manager to provide overall program direction with authority for technical, personnel, and all other resource allocations. The Contractor shall deliver a master plan and IMS. The Contractor shall provide monthly reports identifying any tasks that are behind schedule and reporting expenditures by WBS.

5.3 Technical Reviews

The Contractor shall conduct at least three In-Process Reviews (IPR) (approximately quarterly) and a Critical Design Review (CDR) at its Orlando facilities. IPRs will be no more than two day events covering recent and pending Phase 2 test events and review of the design status. Test Readiness Reviews (TRR) will be one day events at the Contractor facilities for all test events defined in the TEMP (teleconference will be made available for unclassified portions if requested).

The CDR shall cover the following items:

- a) Program Overview and CONOPs review
- b) Requirements, interfaces, and TPMs
- c) Requirements flowdown and allocation
- d) System detail design review
- e) System simulation results
- f) Developmental test results
- g) Operational effectiveness assessment
- h) Safety
- i) Hardware, software, and support equipment
- j) Risk/opportunity management
- k) Phase 2 schedule review

The Contractor shall conduct TRRs for the test activities defined in this SOW at its Orlando facilities.

The TRRs shall cover the following items:

- a) Test overview - Include test objective/purpose, description, time, and location
- b) Test team - Identify test conductor and support team
- c) Test pass/fail criteria
- d) Test matrix and/or test schedule
- e) Test set-up/configuration
- f) Test predictions
- g) Identification of first time events
- h) Instrumentation
- i) Hardware pedigree
- j) Testing history
- k) Software pedigree
- l) Support equipment and spares
- m) Test procedures
- n) Safety issues/concerns
- o) Facilities
- p) Open items list (to include open action items from previous reviews)
- q) Risk assessment
- r) Action items, including identification of those actions items which must be completed prior to test commencement

5.4 Methods of Communication

The Contractor shall participate in weekly telecons with DARPA and the GAT, maintain the unclassified SharePoint site, utilize public key infrastructure encryption for unclassified FOUO email, and maintain the encrypted classified data links to DARPA and JHU/APL.

6.0 Safety

The Contractor shall prepare the source data and develop the application for Interim Hazard Classifications for any hardware containing explosives or fuels for shipping authority. The Contractor shall deliver updates to the System Safety Hazard Assessment (SSHA) as required.

7.0 Requirements for the DARPA GFE RFS and RFS Contractor

7.1 RFS GFE Delivery Dates

The RFS will be provided as GFE. The RFS will be developed by DARPA under a direct contract to DARPA's RFS Contractor (DRC). The Contractor shall assist DARPA with technical monitoring of the DRC. Table 1 establishes the GFE need dates to meet the LRASM-A schedule. Any delay in the deliverables may result in a cost and schedule impact to the Contractor. Table 2 delineates the specification and interfaces the RFS GFE is required to meet as part of the overall LRASM-A system. To the extent that the RFS system does not meet the specification, then it may have a flowdown effect on the LRASM capability. Additional specification and interface requirements are listed in classified Appendix C. There are some requirements identified as TBD in the documents that the Contractor and DRC have to define during the first 4 months after contract award (see Table 1, Item 4). It is anticipated that the Contractor and the DRC will need to meet periodically as defined in Table 1, Items 2, 3, 4, 5, 6, and 13 to accomplish the task of defining the TBDs and verifying ICD accuracy.

Table 1. RFS Delivery Schedule

Item	Date	Milestone	Responsibility and/or Objective(s)
1	2 weeks ARO	Kickoff /specification meeting at RFS supplier	DARPA
2	4 months ARO	Technical meeting	DARPA
3	6 months ARO	Technical meeting	DARPA
4	2.5 months ARO	Technical meeting /TBDs defined in specification and ICDs	Contractor/DARPA
5	8 months ARO	Technical meeting	DARPA
6	10 months ARO	Technical meeting	DARPA
7	3 months ARO first update. Incremental thereafter when updates occur. Final with RFS CDR material delivery (Item 16)	Updated RFS simulation code	DARPA
8	9 months ARO	Deliver RFS HIL&MAS prototype and HIL integration support	DARPA
9	9 months ARO	Contractor provide MAS pod to DRC	Contractor
10	11 months ARO	Install and calibrate aperture in MAS pod	DARPA
11	12 months ARO	MAS integration	Contractor/DARPA
12	13 Months ARO	MAS flight event	Contractor/DARPA
13	10 months ARO	Technical meeting	DARPA
14	13 months ARO	Fit check model delivered	DARPA

Table 1. RFS Delivery Schedule

Item	Date	Milestone	Responsibility and/or Objective(s)
15	14 months ARO	Support aperture calibration test	DARPA
16	14 months ARO	RFS CDR materials delivered	DARPA
17	15 months ARO	MAS flight event	Contractor/DARPA
18	1 month after CDR	1st RFS Delivery	Orlando, FL
19	2 months after CDR	2nd RFS Delivery	Orlando, FL
20	3 months after CDR	3rd RFS Delivery	Orlando, FL
21	3 months after CDR	MAS Flight Event	TBD
22	5 months after CDR	MAS Flight Event	Pt Mugu
23	8 months after CDR	MAS Flight Event	PT Mugu
24	6 months after CDR	FFF Event	Pt Mugu
25	10 months after CDR	IFD Event	Pt Mugu

Table 2. RFS Specification and Interface Requirements

Document Number	Title
797219021	Performance Specification, RF Sensor (RFS)
797219022	Mechanical ICD
797219023	RFS Communications Interface Control Document
797219024	RFS Electrical Interface Control Document

7.2 Phase 2 Additional Required Deliverables Description

7.2.1 System Simulation Support

The DRC shall provide updates to the RFS simulation source code, models and/or RFS algorithm performance emulators provided from BAE Systems in Phase 1 to support the Contractor's system level simulation analysis (need dates as shown in Table 1, Item 7).

7.2.2 Aperture Development - AUR

The DRC shall support Lockheed Martin in the development of the RFS aperture by reviewing/commenting on the Contractor's All Up Round (AUR) aperture design and placement and supporting the maintenance of the interface control documents.

7.2.3 Aperture Development - MAS

The DRC shall support the Contractor in the development of the Missile Avionics Simulator (MAS) aperture by selecting, procuring, installing, and calibrating the COTS aperture on the MAS test bed IAW Table 1, Item 9/10.

7.2.4 Hardware in the Loop (HIL)

The DRC shall provide a prototype RFS for use in the Contractor's HIL in Orlando, FL IAW Table 1, Item 8. The prototype RFS shall provide representative functionality of the system, but is not required to meet the form, fit, and environmental requirements. The DRC shall provide 3 one week support activities to the Contractor in Orlando, FL to support the integration of the Contractor's HIL. The same unit shall be usable in the MAS (See below).

The DRC shall also provide 3 one week support activities to the Contractor in Orlando, FL to support the integration and testing of each delivered RFS on the Contractor's HIL. The 3 one week support activities shall be commensurate with each of the 3 RFS deliveries (Table 1 items 18, 19, and 20).

7.2.5 Missile Avionics Simulator (MAS)

The DRC shall support the initial MAS integration in Orlando, FL. The DRC shall be in place with knowledgeable technicians and engineers to support the integration activity for at least 3 weeks (See Table 1, Item 11). The DRC shall support all five MAS operations identified in Table 1 by reviewing the test plans for each mission and reviewing the data collected. One test flight is expected prior to CDR. A report detailing the RFS data analysis and results from each MAS test is due NLT 3 weeks after the mission. The estimated schedule for the MAS flight events is shown in Table 1, Items 11, 12, 21, 22 and 23.

7.2.6 Aperture Development Support

The DRC shall support the Contractor in the calibration of the aperture if required. The DRC shall review test plans and test set-up to ensure calibration is of the type and accuracy required by DRC. The testing will be conducted in Orlando, FL IAW Table 1, Item 15.

7.2.7 Fit Model

The DRC shall provide form and fit mass simulator for use in fit check and assembly test at the Contractor's facility in Troy, AL as defined in Table 1, Item 14. The DRC shall provide updated form and fit mass simulator for use in fit check and assembly test at Troy, AL if changed from the pre-CDR unit.

7.2.8 CDR

The DRC shall support the LRASM-A system level CDR with required documentation and viewgraphs of the design and analysis of the RFS. The data shall be provided in accordance with Table 1, Item 16.

7.2.9 Flight Test Support

The DRC shall support the two flight operations by reviewing the test plan for each mission and reviewing the data collected. A report detailing the RFS data analysis and results is due NLT 3 weeks after each mission. The estimated schedule for the flight test is shown in Table 1, Items 24 and 25.

OTHER REPORTS AND DELIVERABLES

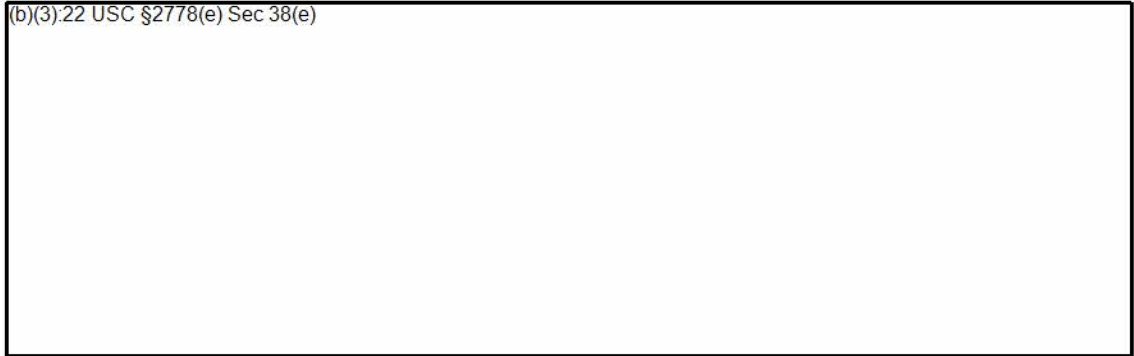
Title	Draft	Final	Update
Contract Work Breakdown Structure for Phases 2a and 2b		30 days ACA	
Master Plan and Integrated Master Schedule for Phase 2		30 days ACA	Monthly
CONOPS			2 weeks prior to CDR
Test and Evaluation Master Plan			4 weeks prior to CDR
System Safety Hazard Assessment			4 weeks prior to CDR
Interim Hazard Classification Data			4 weeks prior to CDR
LRASM-A Air-Launched System Specification			4 weeks prior to CDR and 4 weeks prior to IFD
LRASM-A detail design drawings, interface specifications, and Critical Design Report	4 weeks prior to CDR	2 weeks after CDR	With final report
Operational Effectiveness Analysis Report			2 weeks prior to CDR
Test Plan		60 days prior to each test event	
Test Report		30 days after each test event	
OFP and GNC software	4 weeks prior to CDR	With final report	
Final Report		30 days after the IFD	

Appendix A

This Appendix defines the drawings that will not be provided to the Program Office (DARPA) as part of the design drawing package. There are three categories of drawings to be excluded from the drawing package:

- A. Drawings of commercial parts such as screws, washers, nuts, adhesives, glues, etc. will be referenced in the parts list of the design drawing but no detail specification or drawing of these items shall be provided.

B. (b)(3)-22 USC §2778(e) Sec 38(e)

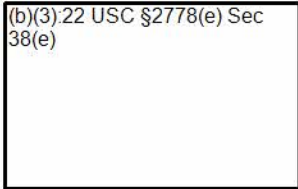


- C. Commercial Off the Shelf (COTS) subsystems such as the Altimeter, IMU, Weapon Data Link components not developed for LRASM-A, telemetry system components, and flight termination components.

Appendix B

This appendix lists all the items to be purchased prior to CDR in order to support the testing in Phase 2. The list is divided into two pieces. The lists are in the form of a embedded Excel® files for ease of use: File JASSM Common.xlsx. Sheet 1 contains the list of JASSM common parts that will be acquired in a combined purchase with JASSM procurement. Sheet 2 is a list of parts that are not specifically quantified but will be before CDR and will need to be purchased in order to meet Phase 2 test schedule.

(b)(3)-22 USC §2778(e) Sec 38(e)



Item Name

Qty for Phase 2

(b)(3):22 USC §2778(e) Sec 38(e)

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AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				I. CONTRACT ID CODE		PAGE OF PAGES	
2. AMENDMENT/MODIFICATION NO. P00039		3. EFFECTIVE DATE 28-Mar-2013		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO.(If applicable) 1 2	
6. ISSUED BY DARPA CMO ATTN: (b)(5) 675 N. RANDOLPH STREET ARLINGTON VA 22203-2114		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA SPECIAL PROGRAMS SOUTH 14285 MIDWAY SUITE 450 ADDISON TX 75001		CODE S4802A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) LOCKHEED MARTIN CORPORATION 5600 W SAND LAKE RD MP125 ORLANDO FL 32819-8907				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-09-C-0096			
				X 10B. DATED (SEE ITEM 13) 29-Jun-2009			
CODE 04939		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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) See Schedule							
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.							
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).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a)							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: jyeung13575							
(See Page 2)							
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) (b)(4)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6)			
15B. (b)(4)				16B. (b)(6)			
15C. DATE SIGNED 28 MAR 2013				16C. DATE SIGNED 3/28/13			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

SUMMARY OF CHANGES

Pursuant to the Contractor's letter reference number LR-OGC-2012-000019-0, dated February 14, 2013, the purpose of the modification is to increase the estimated cost of the Contract (specifically CLIN 0002) by a total amount of \$3,500,000.00 as a result of the cost overrun incurred by the Contractor for the performance of LRASM-A Phase 2. The modification also provides incremental funding of \$3,500,000.00 to fund the cost growth. Accordingly, make the following changes:

SECTION A - SOLICITATION/CONTRACT FORM

- The total estimated cost of the Contract is increased by \$3,500,000.00 from \$144,691,929.00 to \$148,191,929.00.

SECTION B - SUPPLIES OR SERVICES AND PRICES

- CLIN 0002
The estimated cost is increased by (b)(4)
The total cost plus fixed fee amount of this line item is increased by \$3,500,000.00 from \$80,351,513.00 to \$83,851,513.00.

SECTION G - CONTRACT ADMINISTRATION DATA

- Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for the Contract is increased by \$3,500,000.00 from \$130,802,915.00 to \$134,302,915.00.

SubCLIN 000208:

AK: 012199 097 0400 000 N 20132014 D 1320 AMLRC 2013.AIR-01.CORE.A
DARPA 255 (CIN 00000000000000000000000000000000) is increased by \$3,500,000.00 from \$49,153.00 to \$3,549,153.00

- Delete Section G-7 – Incremental Funding - in its entirety and replace it with the following updated version:

G-7 Incremental Funding

(a) The Contract is incrementally funded in the amount of \$134,302,915.00. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of \$134,302,915.00 shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

~ End ~