

ATTACHMENT 1

**Targets and  
Countermeasures (TC) Highly  
Specialized Services  
Statement of Work  
15 September 2016**

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## Acronyms

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AI&T	Assembly, Integration and Test
AO	Associated Object
AUR	All-Up Round
BETD	Best Estimated Test Date
CAD	Computer-Aided Design
CAM	Control Account Manager
CCA	Circuit Card Assemblies
CDRL	Contract Data Requirements List
CFR	Code of Federal Regulation
CFSR	Contract Funds Status Report
CFT	Contractor Field Teams
CLIN	Contract Line Item Number
COE	Certificate of Equivalency
CONOPS	Concept of Operations
CONUS	Continental United States
COTS	Commercial-off-the-Shelf
CWBS	Contract Work Breakdown Structure
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DLA	Defense Logistics Agency
DoD	Department of Defense
DoF	Degrees of Freedom
DoL	Day of Launch
DT	Test Directorate
E&SH	Environmental Safety and Health
eMRBM	Extended Medium Range Ballistic Missile
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EVM	Earned Value Management
FAR	Federal Acquisition Regulations
FBM	Fleet Ballistic Missile
FRR	Flight Readiness Review
FTR	Flight Termination Receiver
FTS	Flight Termination System
GBL	Government Bill of Lading
GFE	Government Furnished Equipment
GFP	Government Furnished Property
GFX	Collective Term for Government Furnished Items: GFE, GFF, GFI, GFM, GFP, GFS
GIDEP	Government-Industry Data Exchange Program

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HHT	Heavy Haul Transporter
HMMP	Hazardous Materials Management Program
HTS	Hazard Tracking System
HWIL	Hardware in the Loop
IAW	In Accordance With
IMP	Integrated Master Plan
IMS	Integrated Master Schedule
IR	Infrared
IPT	Integrated Product Team
IRR	Independent Readiness Review
IUID	Item Unique Identification
LM	Lockheed Martin
LMSSC	Lockheed Martin Space Systems Company
LPART	Liquid Propellant Accident Response Team
LRR	Launch Readiness Review
LV	Launch Vehicle
LV-2	Launch Vehicle-2
MAP	MDA Assurance Provisions
MAR	Mission Analysis Review
MBRV	Modified Ballistic Re-entry Vehicle
MDA	Missile Defense Agency
MDA/TC	Missile Defense Agency Targets and Countermeasures Directorate
MDA/TCL	Missile Defense Agency Targets and Countermeasures Logistics
MDA/QS	Missile Defense Agency Quality, Safety and Mission Assurance
MDIOC	Missile Defense Integration and Operation Code (Colorado Springs)
MDR	Mission Design Review
MFT	Materiel Fielding Teams
MGIL	Master GFX Inventory List
MRBM T3	Medium Range Ballistic Missile Type III
MRR	Mission Readiness Review
MSDS	Material Safety Data Sheet
OCONUS	Outside of the Continental United States
ODC	Ozone Depleting Chemical
ODS	Ozone Depleting Substance
OEM	Original Equipment Manufacturer
OR	Operation Requirements
PMAP	Processes Mission Assurance Plan
PMP	Parts, Materials and Processes
PMPB	Parts, Materials and Processes Board
PMPCB	Parts, Materials and Processes Control Board
PMSR	President's Mission Success Review
PPM	Program Performance Management

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PSMP	Product Support Maintenance Plan
PSRR	Pre-Ship Readiness Review
RCS	Radar Cross Section
RFP	Request for Proposal
SAE	Society of Automotive Engineers
SEMP	Systems Engineering Management Plan
SIC	Single Integration Capability
SID	Significant Item Database
SOW	Statement of Work
SRR	Systems Requirements Review
TACB	Target Assurance Control Board
TC	Targets and Countermeasures
TIMs	Technical Interchange Meetings
TMEL	Target Mission Execution Letters
TPR	Total Program Review
TRR	Test Readiness Review
UDS	Universal Documentation System
WBS	Work Breakdown Structure

## 1.0 Introduction

### 1.1 Purpose / Scope

The Government requires target system program management, systems engineering support, logistics support, target system launch operations, Assembly Integration & Test (AI&T), risk mitigation, and mission management related to Launch Vehicle-2 (LV-2), extended Medium Range Ballistic Missile (eMRBM), FMA-1 and Medium Range Ballistic Missile Type III (MRBM T3) as described in this Statement of Work (SOW). Additionally, the Government requires Mission Tailoring specific Assembly, Integration and Test (AI&T) of Modified Ballistic Re-entry Vehicles (MBRVs) prior to delivery to the launch vehicle providers (LVPs). The Targets and Countermeasures Services Contractor, hereafter referred to as the Contractor, shall perform the tasks required to manage the services described herein.

### 1.2 Overview

This SOW encompasses the effort required to provide program management, logistics support, launch operations, and analysis for specific missions. The specific areas covered in this SOW include:

- Program Management & Systems Engineering
- Special Studies and Short Term Activities
- Mission Planning, Range Integration and Pre/Post Mission Analysis
- Assembly, Integration, & Test at the target system/vehicle/module level
- Launch operations
- Target system logistics planning and transportation
- Maintenance, sustainment, and property accountability of support equipment

Below are the targets that will be produced and delivered under the TCP Contract, HQ0006-04-D-0006 that will be provided to the Services Contract GFP for storage/maintenance while in inventory:

Launch Vehicle Ship Set #6 (LV2)
eMRBM modules for Ship Set #1
eMRBM modules for Ship Set #3
eMRBM modules for Ship Set #4
eMRBM modules for Ship Set #5
FMA-1 SS #10
FMA-1 SS #13
FMA-1 SS #15

Below are the RV's that will be missionized under the Services Contract:

MBRV-7 FS#6
MBRV-7 FS#7
MBRV-7 FS#8
MBRV-7 FS#9
MBRV-8 FS#2
MBRV-8 FS#3
MBRV-8 FS#4
MBRV-8 FS#5
MBRV-8 FS#6
MBRV-8 FS#7
MBRV-8 FS#8



MBRV-2 FS#9 (Option)
MBRV-1 Kit (Option)

Below are the targets that will be launched under the Services Contract per IMTP 14.1:

- T3 configuration is fully integrated under TCP contract through PSRR and Launch operations conducted under TCHSS
- FMA-1 SS #15 is fully integrated under TCP contract through PSRR. Launch Operations and Mission Planning conducted under TCHSS

Target Type	Mission	Target Mission Execution Letter (TMEL)	TMEL Release Date
MRBM T3 Ship Set #1	FTX-20	TMEL Version 2.0 dated 2 July 2014	21 July 2014
MRBM T3 Ship Set #2	FTM-27 E2	TMEL Version 4.0 dated 3 Sept 2014	22 Sept 2014
MRBM T3 Ship Set #3	FTX-21	TMEL Version 1.0 dated 18 Sept 2014	22 Sept 2014
MRBM T3 Ship Set #4	FTM-27 E1	TBD	TBD
eMRBM Ship Set #1	FT0-02 E2.1	TMEL Version 1.1 dated 23 June 2014	12 August 2014
FMA-1 SS #15	PDB-08		
FMA-1 SS #10	TBD		

The Mission Tailoring of the MBRVs is delineated in Section 9.3.1.

### 1.3 Order of Precedence

The documents referred to herein form a part of this SOW to the extent specified. In the event of conflict among requirements, the contract takes precedence.

### 1.4 Data Submittal Requirements

Data to be submitted by the Contractor in support of this program as described in Section 11.0 of this SOW.

### 1.5 Applicable Documents

The following documents of the exact issue shown form a part of this SOW to the extent specified herein. In the event of conflict between the documents referenced herein and the contents of this SOW, the contents of this SOW shall be considered superseding requirements.

#### 1.5.1 Compliance Documents

##### 1.5.1.1 Government Documents

These documents are available on the world-wide web or will be provided by the Missile Defense Agency (MDA).

- TC-TCF-DOC-2011-003, RCC-319-99 Flight Termination Systems Commonality Standard as tailored for eMRBM and LV-2

- TCC-TCF-DOC-2011-004, RCC-324-01 Global Positioning and Inertial Measurements Range Safety Tracking Systems Commonality Standard as tailored for eMRBM and LV-2
- TC-TCF-DOC-2011-005, EWR 127-1 Range Safety Requirements as tailored for eMRBM and LV-2
- TC-TCF-DOC-2012-006, RCC 319-07 T, MRBM T3 Flight Termination Systems Commonality Standard
- TC-TCF-DOC-2012-007, RCC 324-01 T, MRBM T3 Global Positioning and Inertial Measurements Range Safety Tracking Systems Commonality Standard
- TPP-13-41151454, EWR 127-1 Range Safety Requirements Tailored for the MRBM T3 Program
- MDA Policy Memo 50 – Rev B.
- DoD 4000.25-2-M, ch-5, June 2006. Military Standard Transaction Reporting and Accounting Procedures (MILSTRAP), specifically, Appendix AP2.5, CONDITION CODES ONLY.
- Consolidated Federal Regulation 49 (CFR49)
- MDA Directive 6055.04. Work Time Restrictions for Safety and Mission Critical Personnel Supporting Tests and Critical Operations. September 19, 2007
- MDA Directive 4161.02, Item Unique Identification, April 21, 2010
- MDA Directive 4500.02, Transportation Management, September 8, 2010
- MDA Instruction 4500.01-INS, Management and Use of Motor Vehicles, Admin Change 3, February 14, 2013
- MDA Instruction 4161.01-INS, Accountability and Reporting of MDA Property, March 29, 2011
- MDA Instruction 4145.01-INS, Storage and Warehouse Logistics Operations, December 26, 2012
- FTX-20 TMEL Version 1.0.2, June 19, 2013
- FTM-24 TMEL Version 3.0, May 20, 2014
- FTO-02 E2.1 TMEL Version 2.0, April 17, 2014

#### **1.5.1.2 Lockheed Martin Documents**

- Flexible Target Family System Specification (Cycle 1), Revision L dated 2008-04-21
- Flexible Target Family System Specification, Environmental Conditions 94211201005 Rev E. 27 January 2008 (U)
- TPP-08-41110122, Rev B. TCP Parts, Materials, and Processes Mission Assurance Plan, 4 Dec 2009

#### **1.5.2 Reference Documents**

The following documents are provided as references or guidelines to assist in developing designs based on the Contractor's analyses of overall performance requirements and non-operational and operational environments. Specific designs, manufacturing techniques, or test methods shall be the Contractor's responsibility. These documents are available on the world-wide web or will be provided by MDA.

- Department of Defense (DOD) 5100.76-M (Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives), 12 September 2000
- MIL-STD-882D (Standard Practice for System Safety Program Requirements), 10 February 2000
- RCC 501-97 (Universal Documentation System (UDS), November 1997)
- MDA-QS-003-PMAP, Revision A, 26 March 2008
- MDA-QS-0001-Rev A, dated 29 October 2006
- MDA Mission Assurance Provisions (MAP) Rev A change #1: Change Matrix (Attachment 10a pages 1 through 4)
- MAP Exception Letter, dated 2 November 2006 (TCPC-06-0429)

- SMC-S-016
- DoD Manual 4140-01-M-1 COMPLIANCE FOR DEFENSE PACKAGING: Phytosanitary Requirements for Wood Packaging Material, ISPM 15 guidelines 7 September 2007
- MIL-STD-129P w/ Chg 4 (Standard Practice For Military Marking For Shipment And Storage), 19 September 2007
- MIL-STD-130N “Standard Practice For Identification Marking Of U.S. Military Property”, 17 December 2007
- National Institute of Standards and Technology (NIST) Federal Information Processing Standards (FIPS) 140-2, 3 December 2002
- Ballistic Missile Defense System Test Concept of Operations. MDA, Director of Test, April 8, 2009
- RCC 321-02 (Common Risk Criteria For National Test Ranges: Inert Debris)
- MDA Directive 4500.02, Transportation Management, September 8, 2010
- MDA Instruction 4161.01, Accountability and Reporting of MDA Accountable Property, March 29, 2011
- MDA Manual 4161.01-M, Accountability and Reporting of MDA Accountable Property
- DoD Instruction 5000.64, Accountability and Management of DoD Owned Equipment and Other Accountable Property, July 1, 2009
- DoD Directive 4145.19R, Storage and Warehousing Facilities and Services, June 15, 1978
- DoD Directive 4145.19R-1, Storage and Material Handling, September 15, 1979
- DoD Manual 4140.27-M, Shelf Life Management Manual, May 3, 2003
- DoD 4140.1-R, DoD Supply Chain Material Management regulation, May 23, 2003
- DoD Directive 4160.21-M, Defense Material Disposition Manual, August, 18, 1997
- DoD DLA Instruction 4145, Storage and Handling of Hazardous Materials, January 13, 1999
- DoD 5000.67 Prevention and Mitigation of Corrosion on DoD Military Equipment and Infrastructure
- USAF T.O. 1-1-691, Cleaning and Corrosion Prevention and Control, Aerospace and Non-Aerospace Equipment
- Department of Transportation, 2008 Emergency Response Guidebook
- DA PAM 385-64, Ammunition and Explosives Safety Standards
- DA Form 2404, Equipment Inspection and Maintenance Worksheet
- DOD Directive 3200.11 (Major Range and Test Facility Base), 27 December 2007
- IEEE/EIA 12207 Software Life-Cycle Processes
- Missile Defense Agency Targets and Countermeasures Directorate (MDA/TC) Rocket Systems Launch Program Procedure 2.0, Independent Analyses, dated 3 September 2004
- MDA/TC Rocket Systems Launch Program Procedure 3.0, Mission Assurance Tasks Launch Vehicles, dated 3 September 2004
- Fleet Ballistic Missile (FBM) Rocket Motor Incident/Accident Recovery Plan, September 2007, Data Item No. H300-12-8-178
- SAE AS9100

## **2.0 Launch Operations (Does not apply to MBRV Mission Tailoring)**

The Contractor shall provide launch support services in support of Lockheed Martin T3, eMRBM, FMA and LV2 missions identified in IMTP 14.1.

## **2.1 Launch Operations Planning**

### **2.1.1 Launch Operations Planning**

The Contractor shall provide launch planning of and support for field/launch site integration and testing, targets system processing, launch conduct and post-launch activities.

The Contractor shall satisfy the requirements of appropriate range safety, including environmental/explosive analysis and approval for target vehicle operations (ground and flight) to conduct the missions at the designated launch sites as specified in Section B of the contract.

The Contractor shall provide per mission data and support the following:

- One Mission design and Mission Design Review (MDR) update
- The Pre-Ship Readiness Review (PSRR) and four Range Safety Technical Interchange Meetings (TIMs) (Does not apply to FMA missions)
- Target Assurance Control Board (TACB) compliant with Lockheed Martin Space Systems Company (LMSSC) Command Media
- Three Range Requirements TIMs
- One update of Launch Constraints
- One update of Launch Go No-Go Criteria
- One update of the Range Safety Data Package
- One update of the properly formatted Universal Documentation System (UDS) range requirements documents and review of range response to target program requirements
- Participation in and development of presentations for contractor launch readiness review, Mission Readiness Review (MRR), Launch Readiness Review (LRR), and Flight Readiness Review (FRR). The Contractor shall also be responsible for briefing sections and being present to support meetings.

### **2.1.2 Launch Operations Personnel Training and Certification**

The Contractor shall provide launch crew personnel who are properly trained and certified for technical and hazardous operations at specified launch sites. This training shall include mission rehearsals, hazardous materials and ordnance handling, and training at the test range.

The Contractor shall be responsible for conducting Contractor launch crew training. The contractor shall ensure the training of critical skills, such as crimp training and torque training in order to perform launch operations from remote locations with the minimum number of personnel on site.

### **2.1.3 Launch Operations Documentation**

The Contractor shall support development of launch operations related documentation: Countdown Procedure, Launch Constraints, Go No-Go Criteria, and Mission Handbook. The Contractor shall assist the Government in the identification of target system range support requirements development of properly formatted UDS documents (i.e. Operation Requirements (OR)) and range safety documents (i.e. Range Safety Data Package) (CDRL A014). The Contractor shall participate in design reviews, table top and peer reviews, engineering review boards, configuration change boards and readiness reviews. The Contractor shall create the target level countdown and recycle procedure, and provide input for integrating within the mission level countdown documentation.

The Contractor shall participate in the development of the following integrated target system launch documentation:

- Launch Day Decision Flow
- Final Mission Handbook
- Final Launch Constraints
- Final Launch Go No-Go Criteria
- Final Personnel Deployment Plan
- Mission Integrated Countdown

The Contractor shall develop and status a detailed daily site schedule with critical path. This Site Schedule shall include a Top Level Baseline Schedule of Procedures that shows dependencies between procedures.

## **2.1.4 Launch Operations Logistics**

### **2.1.4.1 Logistics Planning**

The Contractor launch operations shall support logistics planning to include: transportation planning, development and coordination for all target system elements, ancillary hardware/materials and support equipment shipments to all required Continental United States (CONUS) and Outside of the Continental United States (OCONUS) shipment origins and destinations.

### **2.1.4.2 Packaging, Handling and Transportation**

The Contractor shall ensure that resources, processes, procedures, methods and techniques are available, and that personnel are properly trained, to ensure the target system, components and support equipment, are packaged, handled, stored and transported safely, efficiently and economically. The Contractor shall ensure that hardware materials and equipment packaging comply with best commercial practices and industry standards, and provide optimal protection during non-operating handling, storage and transportation environments as defined in the applicable product specifications.

The Contractor is responsible to prepare all packaging to and from all origins and destinations containers, and shall provide all blocking, bracing, and packaging. The Contractor shall pack and mark containers in accordance with 49 Code of Federal Regulations (CFR) or other applicable shipping reference. Containers shall be delivered to the shipping area in time to conduct shipper's inspection and make required changes. The Contractor is responsible for packaging for outbound and inbound shipments. The Contractor is responsible to ensure classified shipments are properly packed and marked. The Contractor is responsible to coordinate with the Government for shipment by Government Bill of Lading (GBL); and prepare the GBL manifest and other required supporting documentation.

Prior to shipment and during identified environmentally stressing operations, the Contractor will install environmental data recorders on critical flight hardware, download data at the destination and distribute to MDA.

The Contractor shall coordinate with all applicable Federal, State and International transportation engineering and environmental offices to ensure the target system may be shipped from all required origins, to all required destinations, by the required transport modes. The Contractor shall obtain all required transportation permits; prepare all origin and destination Shipper's Declarations; and provide data for any supporting documentation, e.g., Material Safety Data Sheet (MSDS), Certificate of Equivalency (COE), weight and balance calculations.

### **2.1.4.3 Logistics Launch Site Support**

The Contractor shall provide Integrated Logistics Support at the launch site, including shipping, receiving, spares control, inventory control, government property control, maintenance and calibration of equipment, transportation coordination and coordination of post-launch retrograde activities.

## **2.2 Launch Operations Campaign**

### **2.2.1 Launch Operations Team**

The Contractor shall provide a launch operations team for each launch conducted under this SOW. The launch operations team is responsible for appropriate planning, personnel training, implementing transportation to and from the launch site, launch site set-up and preparation, launch countdown training, vehicle launch and site deactivation. The Contractor shall coordinate all test activities with the Government.

### **2.2.2 Launch Site Activation**

The Contractor shall provide launch support services for launch site setup of target vehicle support equipment including test equipment, ground support equipment and other associated equipment prior to equipment arrival at the specified launch site for each mission. This includes verification testing to ensure all launch site equipment is ready to support mission operations for both test range and target program assets and coordination of site sustainment activities.

### **2.2.3 Launch Site Operation**

The Contractor shall provide launch support services for launch site integration and testing, and launch conduct. The Contractor is responsible for execution of the target launch Concept of Operations (CONOPS).

The Contractor shall be responsible for management of the deployed Contractor team and execution of all Contractor Launch Operations related activities.

The Contractor is responsible for hardware receipt at the launch site, checkout, final flight target system integration with the range, mission rehearsals, and execution of the countdown and target launch. In support of their independent technical verification efforts, Government personnel shall be granted access to all contractor operations performed under this SOW.

The Contractor shall conduct a series of ground tests to validate the target vehicle Flight Termination System (FTS). An end-to-end functional test shall be performed to demonstrate the ability of the FTS receiver to acquire destruct tones and issue a destruct command to an ordnance simulator. The Contractor shall conduct a flight countdown and continued target operation through the automatic launch sequence and simulated flight, to a predetermined timeline sequence of post-ignition ordnance events. The Contractor shall support both a Flight Termination Receiver (FTR) characterization and FTS Battery characterization test. Data recorded during each test shall be reviewed for anomalies before proceeding to the next test.

The Contractor Launch Operations shall support the Government in the preparation and participate in the briefing of the FRR and LRR presentation.

Throughout the range activities leading to launch, The Contractor shall provide daily status of operations to the Government site representative.

### **2.2.4 Launch Site Mission Integration**

The Contractor shall provide launch site mission integration services to include day-to-day coordination of range support per the Range Operation Directive, revisions to prescribed nominal activities/timelines, and coordination with the Government and other mission participant organizations. The Contractor shall provide a lead on-site liaison between Contractor launch operations and the Government. Coordination with the test range and other mission participant organizations personnel for target-to-range integration will be through the Government on site representative.

The Contractor shall assist the Government on site representative in daily status reporting of target activities administration and conduct of daily meetings, and generation and distribution of updates to mission operations documentation (e.g., daily operations schedules, Target Countdown Document , on-site deployment handbook).

The Contractor shall provide an on-site interface for mission data collection and coordination, including assistance to the Government in the planning and collection of target flight data and preparation of on-site quick-look reports and presentations. The Contractor shall provide required technical representation on the TACB. The Contractor shall provide required technical representation at on-site post-mission assessment meetings and anomaly resolution activities.

### **2.2.5 Contractor Site and MDIOC Support**

- The Contractor shall support flight test operations at MDIOC (does not apply for FMA launches at WSMR) and the contractor site. The support required includes:
- Support Mission Risk Working Group meetings, daily “on-island” briefings, special coordination meetings, mission review preparation sessions, mission simulations, pre-mission events and the mission execution with a team of three technical and program representatives at the MDIOC.
- Perform mission simulations planning (does not apply for FMA launches) (2 CONUS pre ship and 1 deployed ground or one captive carry air) and execution; mission simulation data analysis and reporting (does not apply for FMA); pre-mission rehearsals and coordination between the launch site and the contractor site for data validation (through MDIOC (does not apply for FMA launches at WSMR)); and mission execution with subject matter experts with real-time or near real-time access to target data.
- Configure the contractor site to support mission simulation and launch day support by testing the voice, data and video communication lines between the launch site and the contractor site, and by validating the Government provided console displays and telemetry.

### **2.2.6 Launch Site Retrograde and Restoration**

The Contractor shall provide launch services for post-launch activities to conduct site refurbishment, evacuation and retrograde for each mission. Refurbishment, restoration and repair of the launch site shall be accomplished immediately following a launch.

### **2.2.7 Launch Operation Review/ Working Group Meetings**

The Contractor shall support one mission SRR, MDR, PSRR, FRR, Mission Analysis Review (MAR), and MRR per mission. The Contractor shall provide analysis, test report reviews, requirements verification, and preparation of charts for these reviews.

## **3.0 Deployed Launch Support Equipment Sustainment (Does not apply to MBRV Mission Tailoring)**

The Contractor shall sustain the launch support equipment and resources necessary to accomplish the Target and Countermeasure Mission of MDA. This section applies to all assigned Government Property launch support equipment deployed to or kept at test ranges or used in direct support of a mission.

Sustainment requirements for support equipment required by the Contractor for production and delivery of targets are addressed in section 10 of this SOW.

### **3.1 Property Condition**

The Contractor shall sustain government property acquired pursuant to Orders executed against this contract, as Government Property per the Federal Acquisition Regulation (FAR). The Contractor shall provide sustainment support for government property, to DLA Supply Condition Code B4, and shall request disposal instructions from the Government.

B4 Condition applies to new, used, repaired, or reconditioned material which is serviceable and issuable for its intended purpose but which is restricted from issue to specific units, activities, or geographical areas by reason of its limited usefulness or short service life expectancy. B4 Condition includes material with three through six months shelf life. Equipment probably shows some wear, but is useable without significant repair. Maintenance procedures should evaluate, indicate, and record all instances and occurrences where equipment fails or precludes B4 Condition.

#### **3.1.1 Property Management**

The Contractor shall maintain a program to track and maintain Government Property and equipment used in conducting program activities. All Government Property acquired shall be controlled by the Contractor's Property Management and through collaboration with and the Government Property Book Officers.

The Contractor shall use a Defense Contract Management Agency (DCMA) approved Government Property Management System to control the use and monitor the location and condition of government property. The Contractor shall submit a Government Property Physical Inventory Schedule and Reports for GFP and Custodial Balance report and a Final Government Property Inventory report IAW CDRL A009 and A010.

The Contractor shall mark components, parts and end items with Item Unique Identification (IUID) as required by DFARS 252.211-7003 (Item Identification and Valuation). The Contractor shall affix IUID compliant tags to Government Furnished Property (GFP) when the property is returned to the Government. The Contractor shall ensure IUID markings are machine readable and meet MIL-STD 130N. The Contractor shall develop IUID markings/tags, enter IUID and required data elements into IUID Registry. The durable MDA inventory barcode sticker affixed by the Government Property Manager shall not be removed by the Contractor. The Contractor shall update and report to IUID Registry for GFP as directed in DFARS 252.211-7007 (Reporting of Government Furnished Property). The Contractor shall provide a copy of the IUID registry data when returning the GFP to the government.

#### **3.1.2 Property Storage**

The Contractor shall store government property in accordance with released engineering requirements and DD Form 254.

#### **3.1.3 Property Maintenance**

The Contractor shall accomplish preventative (scheduled) maintenance to keep Government Furnished Property (GFP) in the Contractor's accountability maintained to DLA Supply Condition Codes B4. Preventative maintenance shall include refurbishment of launch support equipment to B4 condition after launch.

The Launch Equipment previously used to launch FMA's from the MLP will be maintained and hydraulically exercised every six months in accordance with documented maintenance and System Acceptance Test procedures to assure the launch equipment will function properly for future test events.



The Contractor shall prepare an annual Maintenance Plan identifying the activities, anticipated schedule and resources required to maintain GFP in DLA Supply Condition Code B4. Preventative maintenance procedures shall be periodically updated (up to once per year) and re-submitted based on scope and magnitude of revisions required as approved by the Government. The Maintenance Plan shall be reviewed and approved by the Government. The maintenance plan shall be updated annually and re-submitted based on scope and magnitude of revisions required as approved by the Government. Preventative maintenance actions shall be documented; the Contractor shall provide the Government access to maintenance documentation, as requested.

Corrective (unscheduled) maintenance shall be accomplished in conjunction with quarterly preventative maintenance. Requests to accomplish corrective maintenance shall include a description of the issue; photo documentation (if possible/applicable); a description of the potential impact if not repaired; and a cost estimate. Corrective maintenance actions shall be documented; the Contractor shall provide the Government access to maintenance documentation, as requested.

The Contractor shall establish planned calibration and proof load testing requirements for accountable government property. If GFE is provided without government furnished calibration or proof load testing data, the Contractor may use accepted best industry standards for similar equipment. The Calibration and Proof Load Testing Plan shall be updated annually. Calibration and proof load testing actions shall be documented; the Contractor shall provide the Government access to calibration and proof load testing documentation, as requested.

### **3.2 Reserved**

### **3.3 LV-2 Accident/Incident Response and Recovery Capability**

The Contractor shall maintain and update the existing Accident/Incident Recovery Plan for a fully integrated LV-2, including First and Second Stage C-4 motors, Modified Ballistic Re-entry Vehicle (MBRV), and Associated Objects (AOs) during transportation between the Single Integration Capability (SIC) at Courtland AL and Redstone Arsenal AL, and execute the plan, as required and approved by the Government (prior to LV-2 movements). The LV-2 Accident/Incident Recovery Plan shall be updated and re-submitted based on scope and magnitude of revisions required as approved by the Government. For planning purposes, the LV-2 will be transported via a GBL movement, in the Heavy Haul Transporter (HHT) under Missile Defense Agency convoy rules and permits.

The recovery team personnel shall maintain proficiency through a 1 day annual training session plus a table-top exercise conducted no more than 2 weeks in advance of an actual LV-2 movement. The LV-2 Accident/Incident Recovery Team Training Plan shall be updated and re-submitted based on scope and magnitude of revisions required as approved by the Government.

Equipment needed for a recovery shall be identified in the Plan and agreements/memorandums shall be put in place for their immediate on-call use should an accident/incident occur. Equipment that is not within the current Contractor inventory shall be identified by location either within the government or through commercial lease, with purchase agreements in place.

### **3.4 Surge Support**

The Contractor shall provide unplanned/unscheduled sustainment, maintenance and engineering support for launch support equipment located at Government test ranges or other locations. The use of Field Support Team efforts shall be directed in writing by the Government through a task instruction as defined in Section J, Attachment 7 – Task Instruction Procedures of the contract.

### **3.5 Other Sustainment Activities**

The Contractor shall provide supplemental sustainment, as directed in writing by the Government through a task instruction IAW Section J, Attachment 7 – Task Instruction Procedures, to include but not limited to:

1. Unscheduled Maintenance
2. Unplanned Calibration and Proof Load Re-Certification
3. Unplanned Transportation
4. LV-2 Recovery operations

#### **4.0 Systems Engineering** (Does not apply to MBRV Mission Tailoring)

The Government requires systems engineering support. The Contractor shall perform this function under this contract as specified in this SOW.

#### **4.1 Systems Engineering**

##### **4.1.1 Systems Engineering and Integration**

The Contractor shall perform the effort necessary to manage requirements, perform systems integration, and perform verification planning activities per the Systems Engineering Management Plan (SEMP) and Contract Data Requirements List (CDRL). The products the Contractor shall maintain are defined per the SEM (CDRL A024). The Contractor shall provide system level integration activities as well as perform program level integration efforts (CDRLs A022, A024).

##### **4.1.1.1 Pre/Post Mission Planning and Integration**

The Contractor shall participate in the coordination of the mission telemetry frequency allocation with the target user and test range. The Contractor shall participate in range meetings and mission level meetings to ensure target and potential mission integration issues are addressed early and effectively (up to two per month for 9 months) and any deficiencies identified. The Contractor shall, review experiences/lessons of previous similar missions. The Contractor shall provide systems engineering support (three TIMs/analysis per trajectory) to review and provide analysis on two government developed nominal trajectories. Identified deficiencies shall be resolved as directed in writing by the Government through a task instruction as defined in Section J, Attachment 7 – Task Instruction Procedures of the contract.

The Contractor shall provide CDRL A018 for the eMRBM, MRBM T3, and MBRVs 5, 7 and 8. The Contractor shall provide CDRL A026 (vehicle information) for the eMRBM, MRBM T3, and MBRVs 5, 7 and 8. Mission information for CDRL A026 is provided in section 5.1.

##### **4.1.1.2 Parts, Materials and Processes Requirements**

The Contractor shall comply with Parts, Materials and Processes (PMP) requirements as detailed in MDA-QS-003-PMAP, Rev A and tailored on the HQ0006-04-D-0006 (ref. Lockheed Martin document # TPP-08-41110122, Rev B) contract for newly designed or modified hardware on this contract. Parts, Materials and Processes shall be selected for use, characterized, and qualified in accordance with Processes Mission Assurance Plan (PMAP) requirements, Missile Defense Agency, Parts, Materials, and Processes Mission Assurance Plan. The Contractor shall maintain a Program Specific Parts, Materials and Processes Management Plan defining the PMP Program Details (CDRL A013).

**PMP Management Structure.** The Contractor shall maintain a Parts, Materials and Processes Control Board (PMPCB) for the contract term of the program, provide requisite support to the MDA PMPB, and provide all PMP reporting and information as required in the PMAP and associated CDRL.

**PMP Selection, Qualification, and Screening.** All PMP shall be selected, qualified, and screened for use following the requirements of the PMAP and under control of the PMPCB. All PMP shall meet the quality requirements of the PMAP.

**PMP Out-of-production Management.** The Contractor shall maintain an obsolescence management approach that meets PMAP requirements. The Contractor shall notify the Government as soon as a part is identified as obsolete. For obsolete parts, the Contractor shall locate a second source, a different qualified part that performs the same function without redesign, or a non-standard part that performs the same function without redesign. If a non-standard part is chosen, the Contractor shall submit a non-standard parts approval request per PMAP requirements. If the aforementioned steps do not produce a substitute part and a product redesign is required, the Contractor shall notify the Government immediately. Mitigation steps will be implemented if authorized by MDA.

**COTS Management.** The Contractor shall select and accept all Commercial-off-the-Shelf (COTS) products in accordance with Appendix C of the PMAP.

**COTS Out-of-production Management.** The Contractor PMPCB shall produce an obsolescence report quarterly, and provide identification of obsolete items and technical and engineering research and analyses of potential obsolete COTS parts replacements to the PMPB. Mitigation steps will be implemented if authorized by MDA.

#### **4.1.1.3 Risk and Opportunity Management**

The Contractor shall conduct integration and mission risk management activities that proactively and effectively identify, track, and manage technical, schedule, and cost risks and opportunities.

### **5.0 Mission Planning (Does not apply to MBRV Mission Tailoring)**

The contractor shall provide a data product delivery schedule showing data product lead times leading to Best Estimated Test Date (BETD). This schedule defines the mission planning start date required.

#### **5.1 Nominal Mission Planning**

- Nominal Mission Planning shall be used to support every mission.
- Nominal Mission Planning shall include mission integration activities to ensure full coordination of the mission with the Range, trajectory development, guidance, navigation and control (GNC) activities in support of parameter development, software parameter development and test, and mission systems engineering to ensure that all mission requirements are defined and verified (CDRL A019).
- Nominal Mission Planning shall develop and deliver specific products to include:
  1. Mission specific updates to A018 and A026 shall be provided in an annex for each mission.
  2. The Contractor shall provide Range and Flight Safety Data Packages (CDRL A017)
  3. The Contractor shall provide the necessary data for the Air Certification Documentation. (Does not apply for FMA missions)
  4. Nominal and Monte Carlo 6-Degrees of Freedom (DoF Trajectory (One) (Does not apply for FMA missions) (CDRL A016).
  5. Flight Software to include the software requirement specification, mission specification and discrete list, target mission requirement document, software test plan and procedures, model databook, algorithm design document, flight mission list telemetry format document, engineering release flight software and parameters, dry run release flight software and parameters, final release flight software and parameters, dry run data including frequency response data, run for record data including frequency response data. (Does not apply for FMA missions)

#### **5.2 Expanded Analysis Options**

- Expanded analyses options shall only be executed in addition to Nominal Mission Planning.
- Expanded analyses options shall provide the following additional products:
  1. Plume Model (CDRL A020)

2. Infrared (IR) Signatures (CDRL A020)
3. Radar Cross Section (RCS) Signatures (CDRL A020)
4. L+45 Day Report (CDRL A015)

## **6.0 Program Management**

The Contractor shall manage the program for successful execution of the contract on schedule, within cost, while providing the required technical capabilities.

## **7.0 Management Activities**

The Contractor shall conduct management activities as required to ensure the effective and coordinated operation of this contract and HQ0006-04-D-0006.

The Contractor shall provide a single point of contact responsible for program management.

The Contractor shall support a one hour status meeting for each product line and functional area weekly. The Contractor shall conduct an overarching quarterly program review.

### **7.0.1 Travel**

Travel shall be conducted to support all contract activities.

## **7.2 Business Operations**

The Contractor shall provide all effort required to manage business operations and contract activities necessary to successfully execute the program.

The Contractor shall participate in pre-Request For Proposal (RFP) activities, and draw on appropriate subject matter experts to identify requirements early and set realistic timelines for initiating new contract actions.

The Contractor shall provide a process for monitoring and tracking the cost on cost plus Contract Line Item Numbers (CLIN) and schedule performance of the program. This function includes finance, planning, scheduling and estimating.

### **7.2.1 Financial Management**

The Contractor shall manage cost, schedule, and integrated Program Performance Management (PPM) for the contract.

### **7.2.2 Program Control**

The Contractor shall manage cost, schedule, and document and maintain a Program Contract Work Breakdown Structure (CWBS). The Contractor shall prepare, document, and deliver contractor reporting data requirements (CDRLs, A001, A002, and A004). The Contractor shall support DCMA and Defense Contract Audit Agency (DCAA) audits and reviews.

The Contractor shall establish and maintain a contract-funding database and shall develop, document, and deliver Contract Funds Status Report (CFSR) (CDRL A005). CFSRs shall be presented at the Total Program Review (TPR, see para 7.2.5).

The Contractor shall provide estimating and pricing support for the program to include internal and external changes, and Government requested changes.

### **7.2.3 Program Planning**

The Contractor shall develop and maintain an Integrated Master Plan (IMP) and Integrated Master Schedule (IMS). The Contractor's Demand Management Program Review Board (DMPRB) schedule

metrics will be posted bi-weekly to the Program DMPRB sharepoint and/or WGC site for customer access and review. The schedule metrics will include the following information.

- Summary Schedule
- Critical paths (generate detailed “path to” reports for all critical paths past contractual deliverable date, otherwise, create top 3 critical paths)
- Late Starts (detailed list of all tasks that have start dates behind status date/time now that have 0% complete progress)
- Late Finishes (detailed list of all tasks that have complete dates behind status date/time now that have less than 100% complete progress)
- List of all tasks without predecessors and all tasks without successors
- Two week look ahead (all tasks with start and finish dates in the next two weeks from status date/time now)
- Accomplishments (all tasks that are 100% complete from last status)
- DMPRB action items
- Schedule Conflict Resolution forms (as needed per Demand Management Program Directive)

#### **7.2.4 Data Management**

The Contractor shall perform data management for the contract, to include managing and reporting the systems, products, and contract.

#### **7.2.5 Total Program Reviews**

TPRs will be held quarterly to provide the government status on program activities and to allow for interchange of information.

#### **7.2.6 Contracts Management**

The Contractor shall provide contract management and maintain the formal contract interface with the Government.

### **7.3 Subcontract Management and Procurement**

The Contractor shall develop, implement, and perform subcontract management and administration.

### **7.4 Product Assurance and System Safety**

The Contractor shall maintain a product assurance program in accordance with the MAP as tailored, MAP Exception Letter, 2 November 2006.

Provide a Society of Automotive Engineers (SAE) AS9100 compliant system for launch operations to include subcontractor interface and quality engineering services to ensure complaint launch site preparation, target vehicle setup and checkout for launch operations.

The Contractor launch operations shall support the preparation of all required Range Safety approvals for related hardware, software and operations (CDRL A012).

The Contractor launch operations shall be in compliance with Range Safety launch site requirements. System Safety will support hazardous operations or critical operations involving hardware or personnel. System Safety will serve as a Safety representative on the Liquid Propellant Accident Response Team (LPART).

The Contractor shall ensure compliance with all State, Federal, Local and Range Safety requirements. Environmental Safety and Health (E&SH) shall support hazardous operations where personnel safety is a concern and may support additional operations as required. The Contractor shall ensure employee safety is compliant with 29 CFR 1910. E&SH will serve as a Safety representative on Liquid Propellant Accident Response Team.

### 7.4.1 Missile Defense Agency Assurance Provisions (MAP)

The Contractor shall demonstrate the effectiveness of contract products and processes in achieving the objectives in the MAP and ensuring compliance with all, as tailored, requirements including such areas as quality assurance, reliability, configuration and data management, safety, and mission assurance.

The Contractor's Quality Assurance Program shall ensure compliance with all performance requirements complying fully with hardware and software product baseline documentation including parts, materials, and process controls during production, integration, and testing. The Contractor shall flow quality requirements via a SOW and/or Purchase Order to their subcontractors to ensure compliance with program/engineering requirements and the MAP, as tailored per MAP Exception Letter, dated 2 November 2006 (TCPC-06-0429).

Since no hardware is intended to be purchased on this contract, the requirement to perform annual subcontractor Quality / Mission Assurance system assessments at selected subcontractors is waived. However, should nonconformances arise on previously purchased hardware, it is the expectation of the government that the contractor drive to root cause and ensure corrective action implementation at the subcontractor.

### 7.5 Mission Success

Mission Success shall ensure compliance with the Contractor Mission Success Program Plan and the Contractor program requirements flow down over the program/product life cycle. The Contractor shall define and control all Mission Success activities to include the following:

- The Contractor shall manage and maintain the Significant Item Database (SID).
- The Contractor shall maintain customer contact and liaison on Subcontract Management functions and support the Program Director, staff and Integrated Product Teams (IPT) in interface with the customer and subcontractors on matters for which they have Contractor responsibility.
- The Contractor shall maintain and implement a program Mission Success plan for this contract.
- The Contractor shall manage mission success tasks.

The Contractor shall continuously monitor part procurements and parts drawn from storage for impact of MDA Advisories, Government-Industry Data Exchange Program (GIDEP) Alerts, or any other similar information from other programs. Parts affected by these alerts shall not be used without additional analysis and approval by the PMPCB. Any adverse part or material issue discovered by the subcontractor in the course of development shall be reported to the Parts, Materials and Processes Board (PMPCB) for review and reported to the PMPB. The Contractor shall prepare a Quality, Safety, and Mission Assurance Impact Statement for each MDA Advisory containing the following:

- a. MDA Advisory Number
- b. Points of Contact for Information
- c. Element or Program affected
- d. Impact on program
- e. Action taken

Impact statements shall be submitted to the cognizant MDA Deputates and Elements and to Missile Defense Agency Quality, Safety and Mission Assurance (MDA/QS) via the advisory coordinator listed on the advisory. The Contractor shall follow any other instructions for response as listed on the advisory.

The Mission Success program shall be a coordinated effort in conjunction with MDA/QS that provides for problem avoidance, GIDEP/Alert identification, independent reviews and, if a problem occurs, visibility and resolution to reduce hardware/software risk. Mission Success will ensure compliance with the Contractor Mission Success Program Plan (TPP-04-1240001) from PSRR through on-site post launch and support of mission design reviews that occur after release of the TMEL. Activities include:

- Independent verification of final integration test to ensure anomalous and out-of-family results are resolved and coordinated with the Contractors, LMSSC executive management and Customers.
- Manage and document in the Targets SID all product critical anomalies and liens through a problem resolution process.
- Support mission and system reviews (i.e. SRR, MDR, MRR, PSRR, etc.).
- Activities include: Conduct mission specific Independent Review (Mission Success Criteria Senior Review/Independent Review Board) to assess risk issues associated with products, testing and significant problem resolution. Ensure closure of all action items. Provide real-time support and disposition, through the Problem Resolution Process, of integration test anomalies.
- Provide real-time resolution and documentation of launch countdown (practice and flight) anomalies.
- Coordinate new/existing launch liens and GIDEP/Alerts to assure closure in the Contractor's Mission Success data base prior to launch.
- Provide LM authorization for readiness through the PMSR. Provide liaison with executive staff for any mission issue/changes since PMSR approval.
- Provide post launch, real-time, on-site support for anomaly investigations including proper data gathering (prior to configuration break), fault tree initiation and documentation, and on-site Failure Review Board activity, shall be directed in writing by the Government through a task instruction as defined in Section J, Attachment 7 – Task Instruction Procedures of the contract.

The Contractor shall, assemble and test hardware in accordance with the Mission Success Program. This effort shall provide for problem avoidance, GIDEP/Alert identification, independent reviews, and if a problem occurs, visibility and resolution to reduce hardware/software risk. Mission Success will ensure compliance with the Contractor Mission Success Program Plan and Contractor program requirements flowdowns over the program/product life cycle. Activities include:

- Manage and document all product critical anomalies and liens through a problem resolution process.
- Review and disposition GIDEP/Alerts as they relate to hardware/software.
- The Targets Lessons Learned database is maintained by Systems Engineering for anomaly avoidance and capture new technical lessons learned.
- Provide independent check and balance functions to assure products readiness and reduce risks.
- Conduct up to four independent reviews per target vehicle call-up to assess risk issues associated with products, testing, and significant problem resolution.

## **7.6 Program Security**

The Contractor shall maintain an information protection program to include all special handling and protection procedures required for full compliance with the contract security classification specification (DD Form 254) and other requirements as defined in the contract. This security program shall be an integral part of the overall system design, fabrication, integration, test, and operations concept to include industrial security management, guidance, and oversight to program management, the Government, and subcontractors.

The Contractor shall follow all guidelines and requirements identified in the MDA Security Classification Guides as referenced in this contract and execute all security controls needed to protect the information, correspondences, and processes of this contract as required.

## **8.0 Engineering Services and Special Studies**

The Contractor shall provide Engineering Services and Special Studies chartered to conduct trades and analysis that are beyond the current scope of the Contractor contracts (CDRL A021). These special studies shall address either mission independent or mission specific issues related to LV-2, eMRBM, FMA and MRBM T3. The use of Special Studies efforts shall be directed in writing by the Government through a task instruction as defined in Section J, Attachment 7 – Task Instruction Procedures of the contract. The scope, deliverables, and period of performance will be defined collaboratively with the Contractor.

## **9.0 Assembly, Integration and Test**

The Contractor shall remove each Launch Vehicle (LV) from storage to complete assembly, integration and test.

### **9.1 System Level Integration Testing Activities**

A Test Readiness Review (TRR) shall be completed prior to commencing formal target system level integration testing. At the conclusion of the System level integrated testing, the Contractor shall perform target vehicle acceptance testing prior to delivery to launch site.

### **9.2 Pedigree**

The Contractor shall support an independent Government final assembly Pedigree Review to evaluate integration build, test, and deficiency report data. If Product Acceptance Reviews (PARs) are conducted by the Contractor, then the Government will combine the Pedigree Review process with the PAR process.

### **9.3 Target Vehicle Assembly, Integration and Test**

The Contractor shall perform the effort necessary to assemble, integrate and test the target vehicle systems in accordance with established target vehicle drawings, procedures and practices.

#### **9.3.1 MBRV Mission Tailoring**

The contractor shall perform all functions necessary to prepare MBRVs (MBRV-1, MBRV-2, MBRV-7 or MBRV-8) for specific test missions. Scope includes the following: (1) MBRV-1 (Option 1) (1) MBRV-2 (Option 2), (4) MBRV-7, and (7) MBRV-8. The MBRV-7, and MBRV-8 mission tailoring shall include the MBRV and associated RVSM (RVSM-7 and RVSM-8). **[Price List - CLIN 0050]**

##### **9.3.1.1 MBRV Modifications**

The contractor shall perform all functions necessary to modify the MBRV to meet requirements specified within the Gov't provided Mission Requirements Documents and respective MBRV System Specification.

##### **9.3.1.2 MBRV System Acceptance Test**

The contractor shall perform a System Acceptance Test (SAT) to demonstrate that all subsystems on the MBRV are operational, meet performance requirements, and demonstrate that applicable mission requirements will be met in accordance with SAT. A SAT will be conducted before leaving LM facilities and again at the facility where system integration is conducted (MBRV-1, MBRV-2 and 3 MBRV-7s only). **[Price List - CLIN 0050]**

##### **9.3.1.3 MBRV Pedigree and PAR Reviews**

The contractor shall produce evidence of previous pedigree reviews or conduct a pedigree review of all technical documentation. The pedigree review shall provide evidence that all applicable hardware, software, electronic, pyrotechnic and power subsystems are certified for use and within their specified



shelf life and/or service life requirement. Upon completion of the Pedigree Review and Systems Acceptance Test (SAT), the contractor shall conduct a Product Acceptance Review (PAR) and provide all required documentation. **[Price List - CLIN 0050]**

#### **9.3.1.4 MBRV Transportation, Handling and Delivery**

The contractor shall provide transportation of the MBRV, associated Re-Entry Vehicle Separation Module (RVSM) and support equipment for testing and final delivery. **[Price List - CLIN 0050]**

### **9.4 Target Integration (Does not apply for FMA or MBRV Tailoring)**

The Contractor shall perform the effort necessary to assemble, integrate and test LV and MBRV modules into an All-Up Round (AUR).

- Modules completed and delivered will be pulled from inventory.
- Mission tailoring necessary will be identified and appropriate mission kits will be pulled from inventory, installed and tested as required for LV modules.

Close out photos will be taken to include the interior of all access panels of not less than 10 megapixels.

- Modules tailored for the mission are assembled into a target vehicle and acceptance test performed.
- PSRR is performed.
- The target vehicle is prepared for delivery to the launch site.

#### **9.4.1 Booster Motor Assembly (Does not apply for FMA)**

The Contractor shall perform booster assembly in support of soft-mate testing with flight modules. After performance of booster checkout under soft-mate test, a booster PAR will be performed prior to vehicle hard-mate.

### **9.5 Government Acceptance**

Government acceptance will be performed in accordance with this contract. Target system acceptance shall comply with the requirements of CDRL A023, System Acceptance and Turnover Plan, and shall occur at Pre-Ship Readiness Review (PSRR).

### **9.6 Integrated Logistics Support**

The Contractor shall provide Integrated Logistics Support to include maintenance, Packaging, Handling, Storage, and Transportation (PHS&T), training, and procedures to support AIT activities

#### **9.6.1 Tools, Fixtures, and Support Equipment**

The Contractor shall provide and maintain all tools, fixtures, and support equipment for the maintenance, repair, and calibration necessary for AIT activities.

### **10.0 Targets and Countermeasures (TC) Sustainment Services**

#### **10.1 Logistics Support**

The Contractor shall provide technical, engineering, and logistical services and supplies to support and ensure continued operational availability of Government missile systems. Delivered Government hardware held as inventory, hereinafter referred to as missile systems, includes AUR, components, modules, assemblies/subassemblies, associated support equipment, and spare/repair parts. All maintenance, preventive maintenance, and alterations shall be performed IAW Contractor approved

procedures and Product Support Management Plans (PSMP). The Contractor shall develop and maintain a master schedule for Logistics Support and shall present this schedule at TPRs.

### **10.1.1 Maintenance Support**

The Contractor shall provide maintenance support for missile systems in inventory. The Contractor shall maintain or restore missile systems to operational status IAW Contractor approved procedures and PSMPs. The Contractor shall provide fully qualified personnel (possessing the appropriate license and/or certification) to conduct missile system maintenance. The Contractor shall conduct all maintenance, inspections, surveillance, calibrations, and operational checks IAW Contractor approved procedures and PSMPs. The Contractor shall maintain individual equipment records on AUR, components, modules, assemblies/subassemblies, associated support equipment, and spare/repair parts by serial number or unique identification assigned. The equipment record shall document all repair activity to include modification history performed.

#### **10.1.1.1 Tools, Fixtures, and Support Equipment**

The Contractor shall provide and maintain all tools, fixtures, and support equipment for the maintenance, repair, and calibration of missile systems in inventory.

### **10.1.2 Supply Support**

The Contractor shall provide inventory parts (consumables) for GSE periodic maintenance items. The Contractor shall only procure, repair, or overhaul parts from Original Equipment Manufacturer (OEM) approved manufacturers and possessing appropriate documentation certifying authenticity. The Contractor shall be responsible for managing and monitoring the return of unserviceable spare/repair parts from Contractor repairing activities. The Contractor shall be responsible for restoration, repair, and/or overhaul of unserviceable spare/repair parts to serviceable condition IAW Contractor approved procedures and PSMPs. The Contractor shall be responsible for the disposal of condemned or uneconomical to repair spare/repair parts.

### **10.1.3 Publications**

The Contractor shall provide electronic access to technical manuals developed on TCPC to the Government.

### **10.1.4 Facilities**

The Contractor shall provide and maintain appropriate security and ordnance certifications for Contractor owned sustainment facilities IAW DoD recognized authorities throughout the duration of this contract. The Government will provide access/use of existing sustainment facilities for normal daily support of missile system sustainment operations.

### **10.1.5 Transportation**

The Contractor shall provide all transportation for the missile systems held as inventory to include both classified and unclassified material. This does not include post missionization transportation such as transportation for test events to ranges which would utilize centralized MDA services. In the event the Government determines it is in its best interest to transport the missile system to or from a repair activity, the Contractor shall support the actual transportation using centralized MDA services.

### **10.1.6 Packaging, Handling, and Storage**

#### **10.1.6.1 Packaging and Handling**

The Contractor shall utilize established commercial practices for packaging and handling of missile systems.

### **10.1.6.2 Storage**

With the exception of test ranges, the Contractor shall provide storage in support of the MDA/TC program such as spare/repair parts storage, return of unserviceable spare/repair parts awaiting induction to repair, serviceable missile systems, and unserviceable missile systems awaiting evaluation and disposition. The Contractor shall provide storage IAW released engineering requirements.

### **10.1.7 Contractor Field Teams**

The Contractor shall provide technical support at locations other than the Contractor's facilities and to support Materiel Fielding Teams (MFT)/Deployment Teams on an as needed and/or on call basis. The CFT may be required to perform maintenance, and/or engineering and technical assistance. All maintenance, preventive maintenance, and alterations shall be IAW Contractor approved procedures and PMSPs. The use of Contractor Field Teams shall be directed in writing by the Government through a task instruction IAW Section J, Attachment 7 – Task Instruction Procedures.

### **10.1.8 Configuration Management Program**

The Contractor shall describe their CM plan (CDRL A025). The Contractor shall ensure that all configuration changes are documented and visible to the Government to ensure continual adherence to the performance requirements of missile systems. The Contractor shall host Government verifications of the CM practices and procedures bi-annually. The Contractor shall permit access to the Contractor's facility and documents for this purpose. The Contractor shall document the incorporation of any missile system configuration updates for missile systems and launch support equipment sustained under this contract. The CM approach shall also include methods for processing Government request for changes, if any. When modifying the missile system configuration, the Contractor shall submit a letter to the Contracting Officer that includes a summary description of the anticipated changes and their impacts to the missile system. The Contractor shall obtain written approval from the Contracting Officer before making changes that will either (i) impact the form, fit, or function of the missile system (generally defined as Class I changes as described in MIL-HDBK-61); and/or (ii) modify the Configuration List (delivered with the missile system) as applicable to Class I changes. Changes not directed by the Government shall not be the basis for any equitable adjustment. The Contractor shall present CM information, including but not limited to status of missile system modifications, if any, at each program management review.

### **10.1.9 Environmental**

All Contractor and subcontractor activities shall be in compliance with federal, state, local, and international environmental laws and regulations for Hazardous Material Management. The Contractor shall not use substances listed in EPCRA Section 313 "toxic chemicals" and EPCRA Section 312, "extremely hazardous substances" (available at the U.S. Environmental Protection Agency website: [http://www.epa.gov/emergencies/docs/chem/list\\_of\\_lists\\_revised\\_7\\_26\\_2011.pdf](http://www.epa.gov/emergencies/docs/chem/list_of_lists_revised_7_26_2011.pdf)), or products containing such substances, without Government approval. The Contractor shall request approval to use substances identified in the EPA 17 – list (available at the U.S. Environmental Protection Agency website: <http://www.epa.gov/opptintr/3350/33finb1.htm>) only if there is no other viable material. The Contractor shall not use any Class I ODC/ODS (identified at the U.S. Environmental Protection Agency website: <http://www.epa.gov/ozone/science/ods/classone.html>) in the manufacture or maintenance of items required by this SOW, unless a waiver is obtained from the Government. The Contractor shall provide, by letter to the Contracting Officer, immediate notification of any proposed hazardous material mitigation/elimination efforts that may adversely impact schedule or performance.

### **10.1.10 Corrosion Prevention and Control Program**

The Contractor shall maintain a Corrosion Prevention and Control Program and adhere to established commercial practices or other DoD recognized authorities in its execution.

**10.1.11 Technical Data**

The Contractor shall provide the Government access to all existing delivered/deliverable technical data utilized in the sustainment and support of missile systems. The Contractor shall submit all data items electronically. Documents, briefings, written analyses, technical data, and/or computer software/algorithms required by CDRLs and developed exclusively or partially with U.S. Government funds, shall be delivered with Unlimited Rights or markings no more restrictive than Government Purpose Rights.

**11.0 Small Business Utilization**

The Contractor shall submit semi-annually to the Government, the following small business performance information (CDRL A027) on the Highly Specialized Services procurement effort to include the following specific activities to maximize small business participation:

Efforts to expand the pool of small businesses that are candidates for qualification to provide services to achieve the focus of the Highly Specialized Services effort.

Efforts to engage small businesses to serve as backup or alternative sources in order to mitigate the risks of single source suppliers and increase the quality of supplies or services.

The Contractor shall submit a Small Business Participation & Commitment Plan.

The Small Business Participation Plan shall describe the process the contractor will use to achieve the following minimum small business goals:

<b>Category</b>	<b>The Highly Specialized Services Goals</b>	<b>Participation Dollars</b>	<b>Percent of Total Estimated Subcontract Dollars</b>
Small Business	17.0%		
Large Business			
Total			100%
HUBZone Small Business	2.0%		
Service-Disabled Veteran-Owned Small Business	0.5%		
Small Disadvantaged Business	1.0%		
Women-Owned Small Business	7.0%		

**Note:** The above small business participation goals represent the Government’s assessment of appropriate minimum participation expressed as a percentage of total subcontracting dollars.

The contractor shall employ contract specific initiatives and tools (e.g., mentor protégé agreements, developing second sources focused on improving readiness or reducing cost) to enhance small business participation and capabilities both in the instant acquisition and to meet future TC program requirements. The Contractor shall ensure proper flow-down of requirements, process management, and performance assessments of small business participation at lower tiers.

The Small Business Participation & Commitment Plan which includes the above goals and objectives will be incorporated into the contract at contract award.

## 12.0 Contract Data Requirements

The Contractor shall provide the following plans and reports in accordance with the CDRL format specified in this contract, and submitted at the frequency and/or dates identified:

<b>CDRL MATRIX</b>		
<b>CDRL #</b>	<b>CDRL NAME</b>	<b>SOW Paragraph Reference(s)</b>
A001	Cost Data Summary Report (DD Form 1921)	7.2.2
A002	Contractor Sustainment Report (DD Form 1921-4)	7.2.2
A003	Reserved	
A004	Functional Cost-Hour Report (DD Form 1921-1)	7.2.2
A005	Contracts Funds Status Report	7.2.2
A006	Reserved	
A007	Reserved	
A008	Reserved	
A009	Final Government Property Inventory Report	3.1.1
A010	Physical Inventory Schedule and Report for GFP	3.1.1
A011	Reserved	
A012	Safety Assessment Report (SAR)/ Hazard Tracking System (HTS)	7.4
A013	As Designed Parts Materials and Processes List (ADPMPL)	4.1.1.2
A014	Scientific and Technical Reports - UDS Inputs	2.1.3
A015	Scientific and Technical Reports - Flight Test Report	5.2
A016	Scientific and Technical Reports - Trajectory	5.1
A017	Scientific and Technical Reports - Range Safety Data Package	5.1
A018	Development Design Drawings/ Models and Associated Lists	5.1
A019	Mission SIM Telemetry Tape	5.1
A020	Scientific and Technical Reports - Signature Models	5.2
A021	Scientific and Technical Reports - Target Special Studies	8.0
A022	Review Data Packages – Systems Requirements Review (SRR), CDR, PSR, MRR, FRR, and Post-Flight Reviews	4.1.1
A023	Scientific and Technical Reports - System Acceptance and Turnover Plan	9.5
A024	Systems Engineering Management Plan (SEMP)	4.1.1

<b>A025</b>	<b>TC Configuration Management Plan</b>	<b>10.1.8</b>
<b>A026</b>	<b>Scientific and Technical Reports – Data Book</b>	<b>5.1</b>
<b>A027</b>	<b>Subcontractor Report - Small Business Utilization</b>	<b>11.0</b>