

MISSILE DEFENSE AGENCY

SM-3 MANUFACTURING STATEMENT OF WORK

HQ0276-13-C-0001 (FY14)

ATTACHMENT 18

June 2014

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I. INTRODUCTION

The objective of the Aegis Ballistic Missile Defense (BMD) Program is to continue to demonstrate, evolve and provide a capability to intercept ballistic missiles with a STANDARD Missile-3 (SM-3) Missile integrated with the Aegis Weapons System (AWS).

The Contractor is the Manufacturer of multiple configurations of the SM-3 missile and in that capacity shall deliver missiles to the customer. The following definitions apply:

- All-Up-Round (AUR)- Encanistered Missile Round
- Missile or Guided Missile Assembly (GMA) - Complete Missile less canister

II. SCOPE

This Statement of Work (SOW) provides task descriptions associated with the manufacture, assembly, test, and delivery of SM-3 BLK IB Guided Missile Rounds using the Government Furnished Property (GFP) specified in Attachment 6. Missile performance shall meet requirements of the Performance Specification, Item Specification for the Aegis BMD SM-3 Top Level Requirements (TLR) Component Capability Specification, and WS35176 for BLK IB. The Contractor is not authorized to use Class I Ozone Depleting Substances during the execution of this contract. In addition, the Contractor shall provide the engineering manufacturing support required in the surveillance and obsolescence monitoring.

CLIN 0101 – SM-3 BLK IB Missile Material Procurement (FFP) The Contractor shall procure the material common to the SM-3 BLK IA/IB missile required to complete fabrication, assembly, test and delivery of up to (b)(5) SM-3 BLK IB AUR encanistered missiles in accordance with this Statement of Work (SOW) and delivery quantities as described in Attachment 5.

(b)(5)

Common Material Items (up to (b)(5) each)	
Supplier	Part
(b)(4)	MK72 Booster
	MK 104 Dual Thrust Rocket Motor (DTRM)
	Steering Control System (SCS)
	Thrust Vector Assembly (TVA)
	Controller
	Antenna
	Dorsal Fin

CLIN 0102 - SM-3 BLK IB Missile Material Procurement (COST) The Contractor shall procure initial SM-3 Blk IB material, exclusive of item listed in CLIN 0101, required to complete fabrication, assembly, test and delivery of up to (b)(5) SM-3 Blk IB AURs in accordance with this SOW and delivery quantities as described in Attachment 5. Additionally, as part of the Government's Manufacturing Surveillance activities, the Contractor shall deliver the items listed in the following table:

Manufacturing Surveillance Motors	QTY EA
Divert and Attitude Control System (DACS)	(b)(5)
Third Stage Rocket Motor (TSRM)	

Breakout between rounds that will be used for flight testing with a Flight Termination System (FTS) and Tactical AURs is below:

Deliverable Units	QTY EA
SM-3 BLK IB Tactical	(b)(5)
SM-3 BLK IB Flight Test Rounds	

CLIN 0105 – Ordnance Assessment Hardware

The Contractor shall procure, fabricate, assemble, test and deliver ordnance assessment hardware as specified in this SOW.

CLIN 0106 – AUR Repairs

The Contractor shall provide Maintenance Repair Services for repair and maintenance of assemblies, sub-assemblies, components and associated test equipment and engineering services. The Contractor shall provide the facility, support, services and material necessary to perform repairs, upgrades and/or modifications to sections returned for maintenance. The material to be provided is exclusive of the material provided as GFM in the maintenance facility bonded stockroom. This CLIN is established for the Maintenance and repair of AUR where anomalies are discovered AFTER a round has been DD250'd. For anomalies of rounds discovered while on the production line (CLIN 0102) these rounds will be repaired/reworked under CLIN 0102 and will not be moved off the line to be repaired under CLIN 0106. Additionally, the fee potential under CLIN 0106 is applicable only to the hours expended and associated material costs for effort performed under this CLIN.

CLIN 0107 – SM-3 AUR Maintenance Planning and Spares

The Contractor shall support maintenance efforts to include: planning for repair capability, sparing assessments, and maintenance facilities.

CLIN 0108 – Mission/Quality Assurance

The Contractor shall provide and maintain a Mission Assurance and Quality Assurance program that applies quality through design, while promoting continuous process improvement.

The Contractor shall develop and implement a comprehensive security program to include Information Security, Program Protection, and Communications Security (COMSEC) device.

keymat, loading device and fill cable protection in accordance with the policies, issuances, and standards listed in Section J: Attachment 21 – Applicable Documents – General and Attachment 22 – Applicable Documents - Security.

1.0 SM-3 BLK IB Missiles (CLINs 0101 and 0102)

The Contractor shall provide management, material, and services to manufacture and deliver, via DD-250, BLK IB SM-3 AURs, as stated herein. The BLK IB AURs shall be delivered as either tactical or flight test configured rounds as defined in Attachment 5 upon contract award.

1.1 Hardware

The Contractor shall procure the materials, as required by BLK IB Production Planning; provide manufacturing engineering support (including facilities, tools/tooling, fabrication and manufacturing equipment) and test engineering; and provide touch labor to assemble, test and deliver sufficient hardware elements to meet the required quantity of AURs, as described in this SOW.

The Contractor shall apply available tools such as Statistical Process Control (SPC) to generate and analyze metrics, which focus on key technical processes, supportability parameters (such as test yields), and potential risk areas. Metrics shall be selected to monitor, maintain, and continuously improve performance, quality, reliability, maintainability, testability, producibility, cost and schedule. The Contractor shall validate modified manufacturing processes including acceptance testing. The Contractor shall archive all test results and supporting data and provide to NSWC Corona in a mutually agreed upon format. The requirements of the manufacturing programs shall be flowed down to safety and mission critical subcontractors, key item suppliers and manufacturers of safety and mission critical components.

1.1.1 Hardware Procurement

1.1.2 First Stage

The main element of the first stage of the BLK IB Missile is the MK72 Booster that includes a Thrust Vector Assembly (TVA). The Contractor shall procure sufficient MK72 Boosters to deliver the required quantity of AURs as specified in Attachment 5.

1.1.3 Second Stage

The main elements of the Second Stage of the BLK IB Missile are the Steering Control Section (SCS), the Dual Thrust Rocket Motor (DTRM), and the Staging Assembly (SA). The Contractor shall procure sufficient SCSs, DTRMs and SAs to deliver the required quantity of AURs as specified in Attachment 5.

1.1.4 Third Stage

The main elements of the Third Stage of the BLK IB Missile are the Guidance Section (GS) and Third Stage Rocket Motor (TSRM). The Contractor shall procure sufficient Guidance Sections and TSRMs to deliver the required quantity of AURs as specified in Attachment 5.

The Contractor shall also procure, test, and deliver TSRM Manufacturing Surveillance Motors (MSMs) to be used for surveillance testing to assess if rocket motor performance meets the requirements in the Prime Item Development Specification/Critical Item Development Specification (PIDS/CIDS).

1.1.5 Fourth Stage

The main element of the Fourth Stage of the BLK IB Missile is the Kinetic Warhead (KW) which includes the following main subassemblies: the Seeker, the KW Kit, Throttleable Divert Attitude Control System (TDACS), and other KW Hardware. The Contractor shall provide sufficient KW subassemblies to support the required number of BLK IB AURs as specified in Attachment 5.

The Contractor shall also provide, test, and deliver TDACS MSMs to be used for surveillance testing to assess that performance meets the requirements in the PIDS/CIDS.

1.1.6 Nosecone

The Contractor shall provide sufficient Nosecones and nosecone kits for the BLK IB to deliver the required quantity of AURs as specified in Attachment 5.

1.1.7 Guided Missile Assembly Kit

The Contractor shall provide sufficient BLK IB Guided Missile Assembly Kits to deliver the required quantity of AURs as specified in Attachment 5.

1.1.8 All-Up-Round

An SM-3 BLK IB AUR consists of the SM3 BLK IB Guided Missile Assembly in a MK21 MOD2 canister. The Contractor shall assemble, integrate, and test the GMA and Subassemblies and shall encan the SM-3 GMA with the MK21 Mod 2 Canister (provided as GFE). The Contractor shall provide the required quantity of SM-3 BLK IB AURs as defined in Attachment 5. For final assembly, the Contractor shall perform or provide the following:

- a. A Missile Log (which consists of the missile/propulsion Unit Log (M/PUL) as described by DI-ALSS-81548) with each AUR as it leaves the production/processing facility.(CDRL A016) The Contractor shall capture, retain and provide test data and as-built versus as-designed configuration data for each AUR to Corona (including POC/address). As-built-configuration data shall include manufacture, manufacture lot number and manufacture date for all service life components listed in MD 31460 service life tables for SM-3 BLK IB. Data collection in Contractor's formatted database is acceptable. Electronic data reporting shall be provided in a mutually agreed upon format and frequency.
- b. Assembly, test, and inspection of AUR (missile in a MK 21 MOD 2 VLS canister). Final acceptance by the government shall be made via the DD250 form.
- c. Modular Ordnance Test Set (MOTS) shall be used for the Vertical Launching System (VLS) Integrity and Canister Functional Test. In the event the MOTS is inoperative, the MK 674 MOD 1 Umbilical Breakout Box (UBOB), MK 21 Continuity Test Plugs, and an Igniter Circuit Tester shall be used to verify missile-to-canister integrity. In this situation, all test data shall be recorded and retained on site at the Contractor AUR Facility (AURF) for inclusion in the accept test data set. The Contractor shall maintain the capability to perform special missile-to-canister continuity tests as well as verify continuity of the VLS Canister wiring harness and various canister functions for troubleshooting purposes.

1.2 Integration, Test and Analysis

1.2.1 Test Equipment Maintenance and Support

The Contractor shall maintain life-cycle support of all SM-3 Test Equipment (TE). This shall include TE requirements and plans for operation and maintenance, alignment/calibration, initial and replenishment spares provisioning, technical documentation, technical training, environmental, power and space, data collection and configuration management, and self-certification. The Contractor shall continue the use of the tooling and test equipment program in accordance with TECP-100A tailored procedures. The Contractor shall provide maintenance and repair of Government-Owned TE used to produce the product.

1.3 Production Engineering and Operations Support

1.3.1 Explosive Mishap Prevention

The Contractor shall comply with the requirements of DOD 4145.26-M, DOD Contractors Safety Manual for Ammunition and Explosives (A&E) for the safety requirements contained within the contract, and any other safety requirements contained within the contract. The Contractor shall develop and implement a demonstrable safety program, including operational procedures, intended to prevent A&E-related mishaps.

The Contractor shall designate qualified individuals to administer and implement this safety program. The Contractor shall provide information to the Administrative Contracting Officer (ACO) pertaining to subcontractors retained for A&E work. The Contractor shall conduct mishap investigations in accordance with, but not limited to, provisions of DoD 4145.26-M, dated March 2008.

1.3.2 Integrated Logistics Support

The Contractor shall maintain a logistics program of all missile configurations and shall identify new or modified support resources required prior to deployment. The Integrated Logistics Support program shall include the maintenance of the Integrated Logistics Support Plan, demilitarization (Demil) plans, Standard Missile Major Parts Interchangeability and Service Life Data - MD 31460, MD57579 and other logistics documentation as required. The Contractor shall participate in planning activities to establish depot level processes for SM-3 BLK IB configurations. The Raytheon All-Up-Round Facility shall be responsible to report all AURs to the Ordnance Information System (OIS) through standard inventory systems. The Contractor shall coordinate new packaging, handling, storage and transportation (PHS&T) with the Government. The Contractor shall maintain and store SM-3 data and information in a Contractor's formatted database and shall provide database access to the Government. The Contractor shall maintain, track, and update logistics databases as necessary to reflect production changes. The Contractor shall utilize Naval Ammunition Logistics Codes (NALCs), as defined in MD 31460, as necessary in meeting the requirements of this contract.

1.3.3 Reliability

The Contractor shall support the Failure Reporting, Analysis and Corrective Action System (FRACAS) process, associated plan, and database to conduct failure investigations and failure

trend analyses during production and in-service. The contractor shall provide a monthly Failure Summary Report that includes copies of the open and closed failure related to all acceptance tests and lot acceptance tests at system, section, subassembly (including circuit cards) levels and one-shot devices. When concerns identified in production could either adversely affect or be used to improve in-service hardware or the maintenance, inspection, or test operations for that hardware, the contractor shall generate a trouble report in the in-service FRACAS. The contractor shall support MDA-designated in-service FRACAS representatives to conduct failure investigations and determine the appropriate corrective actions. The contractor shall capture, archive, and deliver the data and reports generated from the in-service FRACAS process per the Failure Reporting and Corrective Action Report.

The contractor shall maintain an Environmental Stress Screening (ESS) process and associated plan which shall be flowed-down to subcontractors and key item suppliers as applicable based on the item purchased. The contractor shall provide an ESS Effectiveness Analysis Report semiannually to report ESS test results and to identify changes to improve the efficiency and effectiveness of the ESS program. The contractor shall collect manufacturing data for updating the Reliability Prediction. The contractor shall provide the updated prediction in a Reliability Prediction Report to the Government.

1.3.4 Systems Safety Program

The Contractor shall maintain a safety program in accordance with MIL-STD-882E, including specific tasks to meet CDRL A005 requirements, and DOD 4145.26-M – DOD Contractors Safety Manual for Ammunition and any other safety requirements contained within the contract. The SM-3 System Safety Program shall include the development and maintenance of a System Safety Support Plan. The SM-3 System Safety Program shall be established in accordance with the SM-3 Integrated System Safety Program Plan (updated for Block IB with ENB SM3B-02.04.01-RR96846) and shall ensure that safety is integrated throughout all phases of the program. The System Safety Program Plan shall include various analyses as outlined in CDRL A005 (SM3 System Safety Program Reports). System safety engineers shall initiate reports, identify hazards, and recommend appropriate corrective actions to eliminate or control the hazard(s).

1.3.5 Government Owned Containers

The Contractor shall maintain all empty Government owned containers. The Contractor shall maintain the container inventory. Container dunnage, saddles, straps, etc. shall be stored within the container for re-use. Empty containers shall be reported to Ordnance Information System (OIS) through standard inventory systems. Empty Containers shall be shipped per direction of the Navy Technical Representative.

1.3.6 Usage/Maintenance/Test/Certification of Government Furnished Packaging, Handling, Storage and Transportation (PHS&T) Equipment and Ordnance Handling Equipment (OHE)

The Contractor shall be responsible for conducting preventive and corrective maintenance on all OHE equipment used in support of this contract, including the weight testing of this equipment in accordance with NAVSEA SG 420-AP-MMA-010. The Contractor shall be responsible for maintenance and repair of OHE and canister PHS&T. The Contractor shall have the

maintenance document approved by the Naval PHST Center, NSWC IHD, Detachment Picatinny, Code G11. Substitution or modification of OHE or canister PHS&T may be authorized by the Administrative Contracting Officer (ACO) upon technical approval from Naval PHST Center, NSWC IHD, Detachment Picatinny, Code G11.

1.3.7 Responsible Engineering Authority

The Contractor shall provide Responsible Engineering Authorities (REAs) to support manufacture of the BLK IB missiles. The Contractor shall provide technical assistance to solve problems that may arise during assembly, test and delivery of BLK IB missiles and, ensure the transfer of knowledge, skills, processes to production personnel.

1.3.8 Production Control and Operations Support

1.3.8.1 Production Control

The Contractor shall maintain a Manufacturing Assembly Parts Listing (MAPL) and provide to MDA/AB-QS as requested. The Contractor shall also generate purchase requisitions and provide material tracking necessary and sufficient to support the manufacture and delivery of the required BLK IB missiles.

1.3.8.2 Operations Support

The Contractor shall maintain work instructions, test instructions and shop floor controls necessary and sufficient to support the manufacture and delivery of the BLK IB missiles as specified in Attachment 5.

2.0 Production Support and Engineering (CLIN 0004)

2.1 All-Up-Round

The Contractor shall provide support for section level and All-Up-Round integration including support of ITF and Camden/Huntsville operations, as required.

2.2 Software

The Contractor shall provide software manufacturing support for the BLK IB production rounds, as required.

2.3 Special Test Equipment

The Contractor shall provide Special Test Equipment repair, upgrades, maintenance and support for BLK IB production rounds, as required. . The contractor is authorized to remove items from Government owned Special Test Equipment (STE), Special Tools (ST) and Equipment to borrow for use on other STE, ST and Equipment, on the same accountable contract, for contract performance, maintenance and/or calibration purposes.

2.4 Systems Engineering

2.4.1 Requirements

The Contractor shall maintain and update, as required, the BLK IA/IB requirements baseline.

2.4.2 Design Verification

The Contractor shall perform System Design and Requirements verification activities, as required, to maintain and support the BLK IA/IB production rounds. This activity includes Engineering Review Boards and completion of the CM process.

2.4.3 System Safety

The Contractor shall perform System Safety planning and management, as required, to maintain and support the BLK IA/IB production rounds including support to the Safety working groups.

2.5 Specialty Engineering

The Contractor shall continue to perform BLK IA/IB System Reliability management and support. The Contractor shall maintain a logistics program for current missile configurations. The Integrated Logistics Support program shall include the maintenance of an Integrated Logistics Support Plan, demilitarization (Demil) plans, and other logistics documentation to include spares forecasting.

2.6 Functional Design

The Contractor shall provide support for algorithm performance analysis as required to support BLKIA/IB production rounds. The Contractor shall perform simulation Verification, Validation, and Accreditation (VV&A) of the 6DOF simulation, as required. The Contractor shall provide performance analysis support for BLKIA/IB production rounds.

2.7 Obsolescence

The Contractor shall develop, maintain, and execute an obsolescence management, tracking and mitigation program for all components of the SM-3 AUR, based on the SM-3 BLK IA/IB Parts and Materials Obsolescence Management Plan, Raytheon Doc. 2291766, Rev A, as applicable.

The Contractor shall:

- Provide updates, as required, to the SM-3 BLK IA/IB Parts and Materials Obsolescence Management Plan.
- Manage the loss or impending loss of manufacturers or suppliers of components, assemblies, and materials used in the manufacturing process
- Select parts and materials that meet or exceed prescribed quality and reliability requirements, facilitate producibility, and optimize the material supportability of the hardware through its life cycle
- Assess the feasibility of Life of Type buys as well as design and qualification of components for the purpose of mitigating and replacing obsolete missile subsystems and test equipment
- Update the obsolete parts list for all missile configurations in manufacturing
- Provide monthly metrics to the Government that include analysis of parts at risk of becoming obsolete, and proposed mitigation approaches to include implementation set-back schedules, informal estimates of cost and assessment of manufacturing schedule impacts
- Provide a semi-annual Obsolescence Assessment of the Bill of Materials (BOM)

- Document the scope of minimal re-designs and related qualification, if required, to include recommendations for parts procurement required to replace obsolete parts
- Establish and maintain Diminishing Manufacturing Sources and Material Shortages (DMSMS) cases using data to track and report on the status of the program, and to aid in assessing parts, materials and suppliers periodically to minimize the risk of obsolescence

Changes considered necessary by the Contractor to ensure the continued manufacture of the BLK IA/IB hardware shall be made in accordance with the configuration management requirements of this contract and coordinated with SM-3 Technical Representative.

3.0 Ordnance Assessment (OA) Hardware (CLIN 0105)

3.1 First Stage

The Contractor shall procure sufficient Periodic Conformance Inspection (PCI) boosters and conduct PCI tests as required by the MK72 Booster Specification and provide hardware for the government Ordnance Assessment Activities as specified in the chart below:

Item	Part Number	Quantity
Thermal Battery, Thrust Vector Assembly (TVA)	7227214 (CH251485)	16 per lot
PCI Carton Samples, Booster Propellant, Bond	N/A	2 Cartons per Batch
PCI Carton Samples, Booster Propellant, Bulk	N/A	2 Cartons per Batch
Booster, Release Initiator, Gas Generator Squib	L6520656	16 per lot
Arm-Fire Device (AFD), Booster	L6520476	6 per lot
Igniter Assembly	L6521392	6 per lot

3.2 Second Stage

3.2.1 Steering Control Section

The Contractor shall provide SCS thermal batteries per lot of batteries for government Ordnance Assessment Activities as specified in the chart below:

Item	Part Number	Quantity
Thermal Battery, Steering Control Section	7227251 (CH251484)	16 per lot

3.2.2 Dual Thrust Rocket Motor

The Contractor shall provide double lined and insulated propellant carton samples per PCI to government Ordnance Assessment Activities as specified in the chart below:

Item	Part Number	Quantity
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Lot Carton Samples, DTRM Propellant Bulk	N/A	2 Cartons per Batch
Lot Carton Samples, DTRM Propellant Bond	N/A	2 Cartons per Batch

3.2.3 Staging Assembly

The Contractor shall provide Staging Assembly surveillance hardware for government Ordnance Assessment Activities as specified in the chart below.

Item	Part Number	Quantity
Explosive Bolts	G682882-006 (2-502210-3)	16 per lot
Initiators	G682882-009 (103377-160SM3)	16 per lot
Transfer Lines (TLX)	G682882-003 (52351-1)	16 per lot

3.3 Third Stage

3.3.1 Guidance Section

The Contractor shall provide the hardware for the government Ordnance Assessment Activities as specified in the chart below:

Item	Part Number	Quantity
G Switch	H5930-2211240-XXX	1 per lot
Inertial Measurement Unit	6568774-1	1 per lot
Thermal Battery, 3rd Stage	G682872-2	16 per lot
Thermal Battery, FTS	G682873-2	16 per lot
Thermal Battery, TSRM 28V	G682878-001	16 per lot

3.3.2 Third Stage Rocket Motor

The Contractor shall provide propellant carton samples that bridge multiple propellant batches and the surveillance hardware to the Government Ordnance Assessment Activities as specified in the chart below:

Item	Part Number	Quantity
ACS Gas Generator Propellant Carton Samples	N/A	Request from Vendor
EED Assy (Gas Bottle Cutter) (ACS)	E57865-XX (2-501350-2)	16 per lot
FCDCA	D10448B1B1007	8 per lot
FCDCA	D10448B1B1012	8 per lot
Igniter, Pulse I, Loaded Case	E47365-XX	4 per lot
Igniter, Pulse II, Propellant	E47331-XX	4 per lot
Initiator (ACS)	103377-347	16 per lot
Lot Carton Samples, TSRM Pulse I	(b)(4) TP-H-3518A	Request from Vendor

Propellant Bulk		
Lot Carton Samples, TSRM Pulse I Propellant Bond	(b)(4)	Request from Vendor
Lot Carton Samples, TSRM Pulse II Propellant Bulk	(b)(4)	TP-H-3518B
Lot Carton Samples, TSRM Pulse II Propellant Bond		Request from Vendor
Pulse I Safe & Arm Device (SAD)	107820	4 per lot
Pulse II Safe & Arm Device (SAD)	107810	4 per lot
Thru Bulkhead Initiator (TBI)	E25446-XX	12 per lot

3.4 Fourth Stage

The Contractor shall provide propellant carton samples that bridge multiple propellant batches to the Government Ordnance Assembly Activities as specified in the chart below.

Item	Part Number	Quantity
Cold Gas Bottle Cutter Assy. Squib Actuator	PS 2-501350-2	16 per lot
Gas Bottle Actuator	R20000539	16 per lot
Gas Supply Assembly	2276490-XX	1 per 25 GSA's
Thermal Battery, KW	461-0116-002 (EAP-12259C)	16 per lot
TDACS Propellant Carton Samples Bulk	N/A	Ask Vendor
TDACS Propellant Carton Samples Bond	N/A	Ask Vendor
Capacitance Discharge Initiators	1240514-002	16 per lot
Igniter Cartridge Assy (TDACS)	1240202-001	16 per lot
Thermal Battery Assembly, Branched	1240517-001	(b)(4)
Thermal Battery Assembly, Non-Branched	1240516-001	

3.5 Nosecone

The Contractor shall provide the hardware for the government Ordnance Assessment Activities as specified in the table below:

Item	PN	Qty
Detonators	2265172-1	24 per lot
Expanding Tubes	G682894-001	4 per lot
Manifold	G682894-002	12 per lot
SMDC 0-Degree	G682894-003	12 per lot
SMDC 180-Degree	G682894-004	12 per lot

4.0 AUR Repair (CLIN 0106)

The Contractor shall perform missile repairs in accordance with Raytheon's approved Recertification Plan SM3-06A.08-RR217757 and the SM-3 All-Up-Round (AUR) Processing and Recertification Requirements Document, MD 57579, Revision E dated February 2013. Upon induction of hardware, the Contractor shall conduct an incoming test. The Contractor shall perform the necessary repair actions to return the section to Ready For Issue (RFI) condition. At the TECHREP's written direction, the Contractor shall perform salvage actions on lower level assemblies stocked in the Bonded Stockroom, when necessary to obtain repair materials. The Contractor shall report all maintenance actions performed against the section in accordance with Maintenance Data Record. (CDRL A018) These maintenance actions should include incoming test, repair, modification, upgrades, in-process test and acceptance tests as applicable. The Contractor shall assure that all approved configuration changes are integrated, as applicable, in hardware returned for depot processing and that all supporting documentation is updated to reflect the change installation. The approved Contractor's Configuration As-Required Lists (CARLs) shall include data elements relative to service life limited items as defined in MD31460.

The Contractor shall coordinate scheduling of repairable items (both factory and vendor) to minimize process turnaround time and depot maintenance costs. For cost effectiveness, the Contractor shall strive to prevent/minimize multiple cycle repairs of sections.

4.1 Section Repairs/Rework

The Contractor shall provide the facility, support, services and material necessary to perform repairs and/or rework to returned sections. Upon induction of returned hardware, the Contractor shall conduct an incoming test. Any data resulting from incoming, in-process and acceptance tests performed against sections shall be provided in accordance with Test/Inspection Report (Test Data) (CDRL A017). If the failure diagnosed is repeated, the Contractor shall perform the necessary repair actions to return the section to Ready-for-Issue (RFI) condition in accordance with the SM-3 All-Up-Round (AUR) Processing and Recertification Requirements Document, MD 57579, Revision E dated February 2013.

All maintenance actions performed against the section shall be reported in accordance with Maintenance Data Record (CDRL A018). These maintenance actions should include incoming test, repair, modification, upgrades, in-process test and acceptance tests as applicable. The Contractor shall assure that all approved configuration changes are integrated, as applicable, in hardware returned for depot processing and that all supporting documentation is updated to reflect the installation of changes. The Contractor shall update and provide Configuration Data Lists (CDLs) for all section repairs/rework in accordance with CDRL A019. CDL reportable items shall be based on the current Government approved Contractor's Configuration As-Required Lists (CARLs). CARLs should include data elements relative to service life limited items as defined in MD31460. The Contractor shall coordinate scheduling of repairable items (both factory and vendor) to minimize process turnaround time and depot maintenance costs.

5.0 SM-3 AUR Maintenance Planning and Spares (CLIN 0107)

5.1 Depot Level Planning Support and Spares

The Contractor shall conduct planning required to support development of a Depot Level Maintenance Facility (DLMF) in support of the SM-3 AUR missile inventory. Planning efforts shall include:

- Develop and maintain and SM-3 AUR maintenance plan
- Spare stocks for FY14 production procurement of section-level assets
- Missile section-level replacement at inception of DLMF operations
- Missile component-level repair capability, either on-site or through supplier network, to support the 60% of sections either repaired or salvaged within 90 days from initial test in the DLMF
- Engineering Support for repairs
- Development / update Work Instructions (WI) for depot-level maintenance
- Coordinating transportation of section-level program assets and ensure adherence to transportation regulations
- Development of section-level and component-level spares stocks and repair capability for 2016 and beyond
- Providing NSWC Corona missile configuration data for component-level replacements
- Planning will be based on agreed upon inductions of missiles for recertification/repair

5.2 Government Furnished Material

The Government shall provide material for use in repairs of SM-3 AURs as Government Furnished Material (GFM) which shall be stored and marked accordingly, with the exception of basic consumable materials that will be furnished by the Contractor. The Contractor shall maintain a stockroom and shall track and manage all GFM in accordance with the applicable FAR clauses. The Contractor shall provide inventory management and maintain accurate inventory records for the Government owned hardware and material assigned to this contract, including spares and repair parts; shall monitor spares and repair parts that are on order and in other categories (e.g., in-repair, on-hold, available from scrap-outs or other possible sources); shall compare those assets continually against projected requirements to preclude work stoppages; and shall provide advance notification to TECHREP of projected stock shortages which may impact repair/upgrade capability, with sufficient lead time to preclude workload impacts. In the event of parts/material shortages that may impact repair/upgrade, the Contractor is authorized to obtain parts emergent needs as approved by TECHREP and concurred with by the COR. The Contractor is also authorized to perform scrap/salvage activities as approved by TECHREP and concurred with by the COR, when necessary to preclude impacts to repair/upgrade.

5.3 Logistics Support

The Contractor shall develop, update, and maintain a logistics database in Contractor format to store SM-3 data and information. The Contractor shall maintain, track, and update logistics databases as necessary to reflect section-level and/or component-level repair actions. The Contractor shall provide logistics, provisioning and planning meetings needed to support the maintenance cycle. This support shall include spare parts kits for missile level assembly. The

Contractor shall review and validate proposed material orders to assure both configuration and ordering information are accurate and complete; and shall recommend appropriate changes to TECHREP.

6.0 Mission Assurance, Quality Assurance and Security Provisions (CLIN 0108)

6.1 Quality Assurance

The Contractor shall provide and maintain a Quality Assurance Program Plan (CDRL A006) that applies quality through design, while promoting continuous process improvement and implement a quality assurance program utilizing ANSI/ISO/ASQ(E) Q9001-2008, AS9100 Revision C, compliance with the MDA Assurance Provisions (MAP) Revision A as tailored and specified in the SM-3 Mission Assurance Implementation Plan (MAIP) and MD 57104, as guidance. The Contractor shall maintain production program quality requirements, and document in the SM-3 Quality Assurance Program Plan. The Contractor shall flow down quality requirements to subcontractors and lower-tier suppliers as applicable based on safety and/or mission criticality and risk.

6.2 Mission Assurance Implementation Plan

The Contractor shall establish and maintain accountability for fulfilling the Safety, Quality and Mission Assurance requirements defined in the MAP Revision A, Change 1, as tailored and specified in the SM-3 MAIP. The Contractor shall support revisions of the SM-3 MAIP during this contract's Period of Performance including the periodic review and maintenance of Contractor supporting documentation and objective evidence. The Contractor's command media, i.e., quality documents, design standards, procedures, processes, build paper, test documentation, and specifications form a part of the Quality, Safety & Mission Assurance (QSMA) Program and are considered contractual obligations. The Contractor shall flowdown applicable MAP (as tailored and specified in MAIP) and their command media requirements to applicable lower-tier suppliers based on safety and/or mission criticality and risk. Flowdown to lower-tier suppliers should follow the same process as the flowdown for any standard.

The Contractor shall provide a SM-3 Mission Assurance and Quality Report to document the status of mission assurance and quality activities. As a minimum, the report shall include the status, including action items of Raytheon Enterprise Supplier Assessments (RESA), Supplier Mission Assurance Implementation Plans (SMAIP), MDA QS Audits, Supplier First Article Inspections (FAI) and Hardware Acceptance Reviews (HAR), Manufacturing Readiness Reviews (MRR), Counterfeit Parts Mitigation and Verification, Program Mission Assurance Board (PMAB), recent significant quality issues, and Failure Reporting, Analysis, and Corrective Action (FRACA).

6.2.1 Parts, Materials, and Processes

The Contractor shall update and maintain a parts, materials, and processes (PMP) control program in accordance with the MDA Parts, Materials, and Processes Mission Assurance Plan MDA-QS-003-PMAP (PMAP), Revision B. The Contractor shall update and maintain a PMP Plan and deliver within 45 days of contract award. The Program PMP plan shall be approved by the Government Program Office with MDA/QS concurrence via the MDA PMP Board (PMPB). The Contractor's PMP Plan shall describe the process to ensure the flow down of all applicable PMAP requirements for manufacturers of safety and mission critical hardware. All Contractor

PMP selection, qualification, screening, and management activities shall follow this PMP plan. In particular, the contractor shall address the PMP control program requirements utilizing a phased implementation approach as applicable for the prime contractor and SM3 suppliers' compliance to the following PMAP paragraphs: Establishment of PMP control programs at applicable suppliers (1.5), Plastic Encapsulated Devices (3.2.6), Destructive Physical Analysis (3.6.8), Parts Age Control (3.6.13) and Supplier/Vendor Selection and Surveillance (3.7.1).

The Contractor shall provide a semi-annual submittal of the As Designed Parts, Materials and Processes, List (ADPMPL) until shipment of final product. The ADPMPL will already be developed using a Technical Instruction on the current contract.

The contractor shall maintain a common PMP WG for the contract term of the program, attend semi-annual MDA PMPB meetings, and provide all PMP reporting and information as required in the PMAP.

6.2.2 Audit Program

The Contractor shall develop, implement and maintain a sub-tier audit program in accordance with internal policies and directives and provide an ongoing supplier audit schedule to the MDA Program Office and MDA AB/QS. Sub-tier audits shall be conducted on any sub-tier Contractor that has a flowed-down requirement whose basis is one of safety and/or mission criticality. The Contractor will determine frequency of the audits based on safety and/or mission criticality of supplier items. Audit results including action items shall be made available to the MDA Program Office and MDA/QS no later than 30 days after completion of the audit and shall be included in the SM-3 Mission Assurance and Quality Report.

The Contractor shall provide support and required interfaces to the Program Office, MDA/QS and affected SM-3 suppliers to facilitate the conduct of MDA/QS "No Knock" Mission Focus Audits (MFA) in accordance with QS-SOP-06 (Attachment 20).

For MDA/QS No Knock Mission Focused Audits (MFAs), the Contractor shall support a maximum of 4 audits for the period of performance. MFAs typically involve 3-4 days with 6-7 Government teams of 2-3 people each auditing the supplier for compliance to the MAP and PMAP. The findings are recorded per the SOP, a follow-up 1 day visit or teleconference is facilitated by a smaller team to approve corrective action plans and a final visit to verify corrective action implementation is done.

6.3 Software Quality Assurance

For all safety and mission critical software, the Contractor shall prepare, update and maintain software specification documents under configuration management that define the architecture, variable control, variable range, modularity, parameter ranges, parameter designations, flow charts and full code. Complex software flow charts shall include all decision paths, decision logic, complex algorithms by mathematical formula, parameter designations, parameter look-up tables, and explanations of unique code associated with input / output and how data schemas are generated. Software technical documentation shall also identify those algorithms directly affecting system performance and shall provide a verification matrix designating the status on

whether algorithms have been qualified and verified by system tests. Furthermore, the Contractor shall:

- Establish and maintain criteria against which the design can be evaluated
- Identify, develop, or acquire design methods appropriate for the software product
- Ensure that the design adheres to applicable design standards and criteria
- Ensure that the design adheres to allocated requirements, and
- Provide sufficient detail to ensure that software quality assurance can be achieved

6.4 Supplier Management Requirements

The Contractor shall establish and maintain a safety and mission critical supplier list. This list shall be an input to the supplier management system. The list shall be available to MDA Program Office and designated representative.

The Contractor shall develop a Supplier Management Plan which provides processes for key supply chain activities, to include but not limited to: supplier selection, supplier evaluation/audits, supplier rating system, receiving test and inspection, conditional source approval, source inspections, procurement and metrics. The Contractor's supplier management program shall ensure that all technical, test, quality, safety and mission assurance requirements are flowed down to the appropriate supplier including the Contractor's command media design margins, methods and practices. Contractors utilizing a Dock-to-Stock program shall maintain Certificates of Compliance for all suppliers in this program, and develop a process for periodically reviewing and inspecting the supplier's ability to remain compliant.

The Contractor shall be responsible for documenting, tracking, monitoring, verifying, and auditing MAP and other technical requirements flowed down throughout the supply chain for all safety and mission critical hardware and software. The Contractor shall review and audit all supplier's critical processes and key characteristics and ensure process controls are in place. Audit results shall be documented and all problems or issues tracked to resolution. Critical or major problems or issues shall be elevated to top-level management, the MDA Program Office, and included for discussion at periodic program reviews. Review and audit results shall be an input to supplier chain metrics to monitor, control, and report supply chain health to MDA Program Offices.

Supplier's planning documentation shall be available to MDA Program Office and designated representatives. Supplier management systems shall contain provisions for the following requirements:

- a. Establish and maintain a supply chain diagram based on bills of materials for all safety and mission critical items, processes, and software. The Contractor shall support semi-annual updates of the MDA Supplier Roadmap.
- b. Establish documented criteria for the flow down of MAP, PMAP and other technical requirements. Tools used for requirements flow down and traceability shall ensure consistent application of criteria. Tools shall identify MAP, PMAP and other technical requirements flow down for each supply chain tier.

- c. Subcontractor's shall identify and document critical processes and key characteristics and provide a product critical processes and key characteristics document to the prime developer containing the following information:
 - 1) Verification Matrix indicating how requirements are met for each critical process and key characteristic (e.g., dimensional and visual inspections, developer approved acceptance test procedures)
 - 2) Standards (e.g., Military Standards, Industry Standards, Developer Standards, Supplier Standards) used for controlling safety and mission critical assemblies
 - 3) All process controls and metrics used to monitor quality for each critical process and key characteristic
- d. Provide supply chain metrics for continuous health monitoring of supply chain implementation of MAP, PMAP and other technical requirements

The Contractor shall provide a quarterly Supplier Management report based upon the supplier inputs to MDA Program Office. The Supplier Management report shall include the above information and the following:

- 1.) Supplier identification and prime developer assessment of supplier chain implementing documentation (e.g., process documentation, standards, command media, procedures) for compliance to MAP, PMAP and other technical requirements
- 2.) Specific accountability and responsibility throughout the supply chain for implementation and verification of MAP, PMAP and other technical requirements
- 3.) Documented validation process to ensure products meet requirements
- 4.) Bi-directional requirements traceability for all safety and mission critical items throughout the supply chain

The Contractor shall comply with the requirements defined in MAP Revision A, Change 1 regarding the management of non-conforming material. To be included in the monthly metrics deliveries.

6.5 Security Program

The Contractor shall develop and implement a comprehensive security program as outlined within the National Industrial Security Program Operating Manual (NISPOM), the Defense Security Service (DSS) Industrial Security Field Operations (ISFO) Office of the Designated Approving Authority (ODAA) Process Manual for the Certification and Accreditation of Classified Systems under NISPOM, the Federal Acquisition Regulation (FAR), and the Defense Federal Acquisition Regulation (DFAR). The Contractor shall contact the Aegis BMD Security and Program Protection Directorate (MDA/AB-S) for security guidance not addressed within the NISPOM or that may be unclear or conflicting to ensure the complete protection of the BMDS.

The Contractor is responsible for providing and flowing-down security guidance directed within this Statement of Work (SOW) and the Contract Security Classification Specification (DD Form 254) to all subcontractors. The Contractor shall provide Government updates on implementing BMDS System Security Engineering (SSE) requirements in accordance with DoD Directive

5000.02, Operation of the Defense Acquisition System and the Systems Acquisition Management Plan (SAMP).

6.5.1 Information Security

The Contractor shall maintain an effective Information Security program and security features using established SSE processes. The Contractor shall verify that cleared subcontractors schedule and conduct annual Information Security program reviews and self-inspections. Serious deficiencies at subcontractor facilities shall be reported to the Contractor. When a security risk has been identified, the Contractor shall conduct a security program review or security assistance visit with the concurrence of the Contracting Officer Representative (COR), develop In-Progress Reports (IPRs), and conduct briefings with programs to identify and review processes, measures, and findings.

The Contractor shall analyze security incidents to verify incident descriptions and address cause, impact, mitigation, and recommended courses of action. The Contractor shall coordinate and resolve security discrepancies and submit reports to the Aegis BMD Security and Program Protection Directorate (MDA/AB-S) within CDRL A015.

As required by FAR clauses 52.204-2, 52.227-10, 52.227-11 and DFARS clauses 252.204-7000, 252.227-7038, 252.227-7039, the Contractor shall report inventions conceived during the performance of the contract. The Contractor shall provide a copy of any classified patent applications to the Program Directorate before filing the application with the U.S. Patent and Trademark Office.

6.5.2 Program Protection (b)(5)

The Contractor shall plan and implement an Acquisition System Protection Program encompassing acquisition security, program protection, Supply Chain Risk Management (SCRM), and SSE for this contract based upon requisite threat documentation provided by the MDA.

Critical Program Information (CPI) must be protected in accordance with the Aegis BMD Program Protection Plan (PPP) (b)(5). The Contractor shall support the Aegis BMD Program on relevant threat information to determine protection required for CPI and implement the required protection in accordance with the Aegis BMD PPP. The Contractor shall assess, develop, and maintain training guidelines for the protection of CPI for the Ballistic Missile Defense System (BMDS). The Contractor shall identify and protect critical components and critical functions identified within the Aegis BMD PPP Criticality Analysis (CA) of the BMDS elements at their plant sites/facilities and subcontractor plant sites/facilities.

The Contractor shall host and support MDA Program Protection and Horizontal Program Assessment teams during on-site technical or security assistance visits. These visits will not duplicate NISPOM self-assessments performed by the Contractor or annual DSS audits, but will focus on the protection of Critical Technologies (CT) and CPI.

The Contractor shall conduct periodic self-assessments to evaluate program adherence to the Aegis BMD PPP, security processes, and NISPOM security directives and procedures. The Contractor shall provide a copy of self-assessment reports to the Aegis BMD Security and Program Protection Directorate (MDA/AB-S) and to the MDA Research, Development, and

Acquisition (RD&A) Security Directorate (MDA/EIR) no later than 30 days after the completion of the assessment. The Contractor shall provide government updates on implementing BMDS SSE requirements in accordance with BMDS system specifications. The Contractor shall provide a quarterly Program Protection Status Report (PPSR) in accordance with CDRL A015 and shall include compliance implementation status in accordance with security directives and procedures outlined within the NISPOM, the Contract Security Classification Specification (DD Form 254), and security directives attached to this SOW (Attachment Number 22).

(b)(5)

The Contractor shall continue protection measures through the life cycle of the CT/CPI. The requirements for protection of CT/CPI shall be flowed down to subcontractors and vendors manufacturing, integrating, or modifying CT/CPI.

(b)(5)

6.5.3 Supplier Assurance and Supply Chain Risk Management (SCRM)

The Contractor shall support the government SCRM Advisory program by providing detailed information to government inquiries in regards to suspect parts. The Contractor shall only procure logic bearing devices from the vendors approved by the Defense Microelectronic Activity (DMEA) or request an exception in writing to the Government Contracting Officer's Technical Representative and MDA/DEI with a justification as to why the component could not be procured from certified a vendor.

The Contractor shall only implement the above SCRM processes during Commercial Off the Shelf (COTS) refresh, replacement of obsolete parts, or when responding to Government SCRM advisories. The Contractor shall demonstrate that it has visibility into its supply chain for microelectronic devices that has the capability to store and process executable code, hash values, or encryption/decryption algorithms and understands the risks to that supply chain. The Contractor shall flow down requirements for SCRM to subcontractors and lower-tier subcontractors. The Contractor shall support and participate in unannounced Government audits into their supply chain activities. The Contractor shall report discrepancies to the Program Directorate Configuration Review Board.

6.5.4 Communications Security

The Contractor shall protect COMSEC devices, keying material, loading devices, and fill cables in accordance with NISPOM. COMSEC technical information shall be protected through information security and applying the appropriate derivative classification to the information.

6.5.5 Cybersecurity

The Contractor shall provide inputs to and support Government led security technical interchange meetings and working groups. The Contractor shall support Government conducted

Certification & Accreditation planning and testing in accordance with the Office of the Designated Approving Authority (ODAA) Process Manual.

The Contractor shall conduct certification and accreditation of Classified Systems and Networks under NISPOM in accordance with the DSS ODAA Process Manual and DOD Instruction 8510.01, Department of Defense Risk Management Framework (RMF) for DOD Information Technology. The Contractor shall ensure the protection of Trusted System Networks and Unclassified Contractor Networks containing DOD Information in accordance with DoD Instruction 8582.01, Security of Unclassified DOD Information on Non-DOD Information Systems, and DFAR Clauses 32 CFR Part 236 and 48 CFR Parts 204, 212, and 252.

7.0 Program Management

7.1 Technical Direction

The Contractor shall provide the program management and technical direction resources to execute the requirements of this Statement of Work. This task shall include providing support of periodic management reviews such as Program Management Reviews (PMR), Mini Tech Reviews, Business Reviews, Integrated Baseline Reviews (IBR), and Manufacturing Readiness Reviews as appropriate. The purpose of these meetings and reviews shall be for the Government to monitor program progress and technical risk. The Contractor's support may include hosting, conducting, participating in, creating agenda for, creating presentations for, and responding to action items. The Contractor shall maintain a risk management process. The Contractor shall manage the translation of operational needs and requirements into manufacturing and support processes. The Contractor shall maintain a risk management process that complies with the Aegis BMD Risk Management Plan.

7.2 SM-3 Technical Representative

The Contractor shall make provisions for a Government Technical Representative(s) to be resident at each Contractor facility where program management functions reside and missile hardware/software is produced. The Contractor shall make available support services and office space for resident Government personnel, to include the following:

- (a) Office space and furnishings to include desks, chairs and file cabinets,
- (b) Facility mail service with a code designated for the Government agent,
- (c) Utilities and separate telephone lines through a facility exchange,
- (d) Transportation of Government personnel in restricted areas,
- (e) Janitorial services,
- (f) Access to all development, test and integration laboratories.

7.3 Meetings and Reviews

The Contractor shall support the periodic management reviews specified herein. The purpose of these reviews shall be for the Government to monitor program progress and technical risk. The Contractor's support may include hosting, conducting, participating in, creating presentations for, creating agenda for, preparing minutes for, and responding to action items.

- a. In Process Reviews (IPRs) – The Contractor shall conduct, at the Contractor’s facility comprehensive Government chaired In Process Reviews (IPRs) at approximately six (6) month intervals.
- b. Integrated Product Team (IPT) and System Safety Working Group Meeting – The Contractor shall participate in and support, at various Government/Contractor facilities, IPT, and working group meetings.
- c. Integrated Baseline Review (IBR) – The Contractor shall host one (1) IBR for CLIN 0101, 0102, 0103, 0104, 0105, 0106 and 0107 within approximately six months of CLIN award or option exercised and at least one IBR annually (consolidation and coordination is expected) to assess changes to the Performance Management Baseline over the period of performance. { add ko.7.17.13} The objective of the IBR is for the Government and the Contractor to jointly assess areas, such as the Contractor’s planning, to ensure complete coverage of the SOW, logical scheduling of the work activities, adequate resourcing, and identification of inherent risks.
- d. Manufacturing Readiness Review (MRR) – The Contractor shall conduct, at the Contractor’s facility comprehensive Manufacturing Readiness Reviews to demonstrate manufacturing readiness, as necessary.

Additionally, the Contractor shall provide information necessary to explain and describe to the Government how the Integrated Program Management Report (IPMR) requirements are being implemented.

7.4 Business/Administration/Scheduling

The Contractor shall maintain the contract Work Breakdown Structure (WBS), Attachment 11. The Contractor shall provide cost estimation, as authorized by the Contracting Officers Representative (COR). The Contractor shall support major sub-contract administration and program schedule.

7.4.1 Cost Management

The Contractor shall implement, maintain, and submit a IPMR that conforms to the criteria established by DoD 5000.2-R, Section 6.4 and Appendix VI. The Contractor shall submit IPMRs in accordance with CDRL A007. The Contractor shall flow down to the subcontractor(s) the IPMR requirement when the subcontractor(s) estimated value is at least \$20 million. Organizational categories under Format 2 are limited to the prime Contractor and its major subcontractor(s).

7.4.2 Contractor Cost Data Reporting

The Contractor shall establish, maintain and use in the performance of this contract a Contractor Cost Data Report (CCDR) System in accordance with DoD 5000.4-M-1 and in accordance with CDRLs A001, A002, A003, and A004. Prior to approval by the Contracting Officer and within ninety (90) calendar days after contract award, the Contractor shall demonstrate the operation of its system to the Government. The Contractor agrees to provide access to all pertinent records, data and plans as requested by representatives of the Government for the conduct of the review. CCDR shall conform to the Work Breakdown Structure (WBS).

The Contractor shall reference in the contract the description of the management systems approved by the Contracting Officer, identified by the title and date. The Contractor shall use and maintain these systems in the performance of this contract.

The Contractor shall submit changes to the approved systems shall be submitted to the Contracting Officer for review and approval. The Contracting Officer shall advise the Contractor of the acceptability of such changes within sixty (60) days after receipt from the Contractor. When systems existing at the time of contract award do not comply with the criteria, adjustments necessary to ensure compliance shall be implemented at no change to contract price or fee.

The Contractor shall require each selected Subcontractor, as mutually agreed to between the Government and the Contractor and as set forth in the schedule of this contract, to meet the CCDR Systems criteria as set forth in the guide. For the selected subcontracts, the Contractor shall incorporate adequate subcontract provisions for demonstration, review, acceptance and surveillance of Subcontractors' systems for the Government.

The Contracting Officer may waive all or part of the provisions hereof concerning demonstration and review if the Contractor or Subcontractor is utilizing CCDR Systems that have been previously accepted, or is operating such systems under a current Memorandum of Understanding.

7.4.3 Common Cost Model Working Group

The Contractor shall participate as a member of the Cost Working Group (CWG) and shall support the Common Cost Methodologies (CCM) described in Missile Defense Agency Directive 4250.02, BMDS Cost Estimates, through delivery of CCM reports IAW CDRL A008. The Contractor shall ensure appropriate subcontractor participation in the CWG and CCM reporting.

7.5 System Engineering, Configuration Management and Data Management

7.5.1 System Engineering

The Contractor shall provide Team Lead activities of the SM-3 Systems Engineering (SE) Team. This task shall include technical leadership, cost account management preparation, maintenance and reporting. The Contractor shall use the Missile Defense Agency (MDA) Engineering and Manufacturing Readiness Level (EMRL) criteria and metrics as the standard maturity measurement of product hardware and software. The Contractor shall provide technical management oversight support of subcontractor configuration and data, as required.

7.5.2 Configuration Management/Data Management

The Contractor shall maintain the SM-3 Configuration Management (CM) Operating Plan in accordance with the SM-3 MAIP in support of the Configuration Management Plan (CMP) for the Aegis BMD Program PD452 and the Configuration Management Plan (CMP) for the SM-3 Program PD452. The Contractor shall maintain a historical archive of all configurations, production test data, qualification data, lot acceptance and data used for statistical process

control against which the design can be evaluated. The Contractor shall include missile as-built configuration and change control data indentured from section to piece part level, Test Equipment (TE) prove-in archives and TE pre- and post-alignment/calibration baseline data. The Contractor shall capture, retain and deliver to the Government test data as-built versus as-designed configuration data for each AUR to include manufacture, manufacture lot number, lot acceptance data and manufacture date for all service life components listed in MD 31460 service life tables for SM-3 BLK IB.

The Contractor shall maintain the documentation and data items identified in the execution of this contract and shall provide notification of change to the government for review. The Contractor shall maintain an Engineering Notebook (ENB) as part of the Raytheon Product Data Management (PDM) centralized system for storing program documentation. Data collection in Contractor's formatted database is acceptable. The documentation, including titles of proprietary and classified data, shall be made available to the government.

The Contractor shall not dispose of data without notifying the PCO in writing ninety (90) days prior to disposal.

7.6 Maintenance/Availability of Quality Records

The Contractor shall maintain quality records, documents, processes and procedures in accordance with applicable quality system called out in this contract. The Contractor shall make all records available to the customer upon request. Records shall include, but not be limited to:

- The Contractor's and sub-tier supplier command media
- Evidence of inspection to assure adherence to applicable drawings or specifications
- First Article Inspection/Test Reports
- Periodic inspection and control of inspection media
- Records to indicate control of Special Tooling and Special Test Equipment
- Test data records of all qualification and acceptance test performed
- Certification of personnel as required by specification and/or contract
- Raw Material and Process certifications
- Material Review Report

7.7 All-Up-Round Certification

The contractor shall provide a DD-250 as certification that the round and all of its critical subassemblies comply with all technical requirements as approved by the Program Office.

7.8 Safety

The Contractor shall have effective policies and procedures in place to protect the life and well being of Contractor and Agency employees, the public, and MDA property and equipment. The Contractor shall adhere to all applicable local, state, and federal safety laws/regulations as well as the safety requirements of MIL-STD-882E and of the MAP (Section 3.14) as tailored by the SM-3 MAIP. The Contractor shall maintain a system safety program in accordance with the SM-3 System Safety Program Plan and the Aegis BMD Integrated System Safety Management Plan (ISSMP) and ensure that safety protection considerations are integral parts of the systems engineering efforts. The safety program shall address personnel and equipment concerns relative

to the design, development, testing, use, maintenance, life cycle support and disposal of the system.

7.9 Unique Identification (UID)

The Contractor shall mark the components, parts, and end items with Item Unique Identification (IUID) as defined in the SM-3 Block IB UID Implementation Plan dated December 2011. This document references the IUID requirement as defined by Defense Federal Acquisition Regulation Supplement (DFARS) 252.211-7003 and IAW MDA Directive 4161.02. As discussed in the SM-3 Block IB UID Implementation Plan, the Contractor shall ensure the IUID markings are machine readable and meet MIL-STD 130N. The Contractor shall develop the IUID marking/tags, enter the IUID and required data elements into the IUID Registry.

The Contractor shall update and report to the IUID Registry for GFP as directed in DFARS 252.211-7007

7.10 Assignment and Use of National Stock Numbers

To the extent that National Stock Numbers (NSNs) or preliminary NSNs are assigned by the Government for the identification of parts, pieces, items, subassemblies or assemblies to be furnished under this contract, the Contractor shall use such NSNs or preliminary NSNs in the preparation of provisioning lists, package labels, packing lists, shipping containers and shipping documents as required by applicable specifications, standards or Data Item Descriptions of the contract or as required by orders for spare and repair parts. The cognizant Government Contract Administration Office shall be responsible for providing the Contractor such NSNs or preliminary NSNs that shall be assigned and that are not already in possession of the Contractor.

7.11 Assignment of Serial Numbers

The Contractor shall request serial number assignment, in writing, from the cognizant technical program office, with a copy to the cognizant DCMA office. The request for serial assignment shall contain the following information, at the minimum:

- (a) Contract number
- (b) Assigned line item number and description
- (c) Assigned type designation
- (d) Assigned model number
- (e) Top drawing number and ID (List of Drawings) number
- (f) Exact quantity for which serial numbers are being requested, including preproduction samples required by the contract, and
- (g) National Stock Number

7.12 Updated Specifications and Standards

If, during the performance of this or any other contract, the Contractor believes that any contract contains outdated or different versions of any specifications or standards, the Contractor may request that all of its contracts be updated to include the current version of the applicable specification or standard. Updating shall not affect the form, fit, or function of any deliverable item or increase the cost/price of the item to the Government. The Contractor should submit update requests to the Contracting Officer with copies to the Administrative Contracting Officer

and the Contracting Officer's Representative for approval. The Contractor shall perform to contract in accordance with existing specifications and standards until notified of approval/disapproval by the Contracting Officer. Any approved alternate specifications or standards shall be incorporated into the contract.

7.13 Government-Industry Data Exchange Program

The Contractor and their suppliers shall participate in both Government Industry Data Exchange Program (GIDEP) and MDA Assurance Advisory Reporting System. GIDEP participation shall be in accordance with GIDEP Requirements Guide, S03000-BU-GYD-010 dated April 2008. GIDEP alerts and MDA Assurance Advisories are received by each participant's coordinator, screened, and forwarded to the appropriate program or functional group for action. If a formal response is required by a MDA Assurance Advisory, instructions for action will be stated in the Advisory. Developers and their suppliers shall generate new GIDEP alerts and MDA Assurance Advisories. The developer shall provide technical assistance to their suppliers who are not GIDEP and MDA Advisory participants. Data entered is retained by the program and provided to qualified participants. Compliance with this requirement shall not relieve the Contractor from complying with any other requirements of the contract.

The Contractor agrees to invoke the requirements of this section in any subcontract hereunder exceeding \$500,000 in total estimated value or when participation is determined to be justified by the MDA Technical Representative.

GIDEP materials, software and information are available without charge from:

GIDEP
P.O. Box 8000
Corona, CA 92878-8000
Phone: (951) 898-3207
FAX: (951) 898-3250
Internet: <http://www.gidep.org>

7.14 Transportation Protection System

The Contractor shall use GFP Transportation Protection System (TPS) 1.2 during the land-based transportation of AUR assets to Navy facilities and shall store the TPS for use at Contractor sites; storage requirements shall comply with TPS specification WS 35673. Use of the TPS is directed by Tactical and Non-Tactical Truck Loading Plans NAVSEA Dwg 53711-8411304. Aegis BMD will be responsible for transportation of TPS assets to Contractor facilities and after receipt from Contractor at Government facilities.

7.15 Property Monitoring

The Contractor shall track and manage GFE/M in accordance with FAR 52.245-1, DoD Instruction 5000.64, and MDA Instruction 4161.01-INS, Accountability and Reporting of MDA Property. The Contractor shall provide the following CDRLs: 1) Physical Inventory Schedule and Reports (CDRL A013), and 2) Final Property Identification Listing (CDRL A014). The

Contractor shall provide an electronic status report, in accordance with the applicable CDRL, describing the condition and usage status of GFP received under this contract. CDRL reporting shall exclude material purchased by the Contractor for use in deliverable end items and scrapped material consumed in testing.

The Contractor shall track part numbers and National Stock Numbers (NSNs), when available, and justify any requested GFP changes in requirements compared to the GFP list in the contract.

8.0 Critical Hardware Handling

All Hardware with the potential to result in a major schedule impact if damaged, special high dollar items as determined by the program (such as one-of-a-kind articles), or hardware whose handling poses a risk beyond routine handling operation personnel or equipment, shall be considered Critical Hardware. All higher level assemblies with Critical Hardware incorporated into it shall be considered Critical Hardware. Program and production management shall jointly identify critical hardware. The Critical Handling process for the SM-3 Program is detailed in RMS Document Number INST-SM3-008.

Removing a piece of Critical Hardware from a workbench, vehicle, or fixture and lifting or moving it to another workbench, vehicle, or fixture constitutes a Critical Lift. Critical Lifts require a team of Authorized Lifters as detailed by Work Instructions. Critical Lifts may not be performed without direction from Work Instructions. If Critical Lift direction has not been incorporated into Work Instructions, the lift may proceed by using Critical Lift/Move Check Sheet for Lifts/Moves with Pending Work Instruction.

9.0 Hazardous Material Control and Management

The Contractor shall minimize the use of hazardous material in the SM-3 Program. Whenever hazardous materials are necessary, the Contractor shall be responsible for the implementation of a formal Hazardous Material Control and Management Plan and Report as required by MIL-STD-882E Task 108 and Task 103 (Hazard Management Plan) to ensure control of the environmental effects of the production, testing, operational and maintenance processes. In addition, the Contractor shall be responsible for the identification, justification, and documentation of all hazardous materials used. The Contractor shall identify the potential health hazards of the hazardous materials selected for SM-3 application, and shall provide appropriate hazard mitigation measures to minimize personnel and environmental damage and exposure. The Contractor shall also identify all pollutants generated by each process (production, test, and operations) and appropriate disposal methods.

The Contractor shall establish hazard classifications for SM-3 and shall follow the explosive hazard classification procedures in accordance with NAVSEAINST 8020.8B.

9.1 Exclusion of Mercury

Mercury or mercury containing compounds shall not be intentionally added or come in direct contact with hardware or supplies furnished under this contract or that are provided to any non-US Governmental entity with or without compensation. The Contractor shall ensure compliance with the Mercury Export Ban Act of 2009.

9.2 Periodic Retesting of Hazardous Material Packages

Title 49 CFR 178.601(e) requires periodic retesting of all packages used for hazardous materials. All explosive material packages of less than 400 kilograms (882 pounds) net mass (item weight) require design testing and/or periodic retesting. The Contractor shall pass design qualification testing at the start of any new or different packaging. The NSWIC IHD, G1 Det Picatinny, PHST Center shall perform the Title 49 CFR required testing after First Article testing is complete. If the First Article testing is waived, then design testing and/or periodic retesting must be separately performed. If the production of hazardous material packaging extends more than twelve (12) months, then periodic retesting shall be performed at least once every twelve (12) months for combination packs. Metal drums require six (6) containers for periodic testing. The testing facility shall keep all records of testing data for a minimum of two (2) years after test completion. DEPARTMENT OF TRANSPORTATION (DOT) certification of the Testing facility is not required, however, the NSWIC IHD, G1 Det Picatinny, PHST Center shall review all noncertified tests to assure conformance with Title 49 CFR. The NAVAL PHST CENTER, IHD DETACHMENT PICATINNY is the Navy's explosive packaging test facility. Exemptions from periodic retesting may be available. Submit requests for exemption to the NSWIC IHD, G1 Det Picatinny, PHST Center.

10.0 Inspection, Acceptance, Marking and Packaging Requirements

10.1 Inspection and Acceptance

Inspection for the purpose of final acceptance shall be documented on a DD Form 250, "Material Inspection Receiving Report (MIRR)" by a representative of the Government at the Contractor's AUR facility.

10.2 Deliveries or Performances

All supplies shall be delivered free of expense to the Government in accordance with instructions specified in the clause entitled, "F.O.B. Origin" (FAR 52.2478-29) at or near the Contractor's plant, Camden AR/Huntsville, AL, for shipment at Government Expense (normally on Government bill(s) of lading) in accordance with this SOW and Attachment 5. The Government shall be responsible for paying for transportation between Government facilities.

Transportation of Navy owned ordnance material shall be accomplished in accordance with DOD 5100.76-M. The Navy implementing instruction is set forth in OP 2165.

All Contractor owned data, software and hardware, including test equipment and fixtures, used on Standard Missile programs to be shipped by a Contractor shall be shipped at the Contractor's expense. Transportation by most economical means to meet program schedules is required.

The Contractor shall submit a written request for shipping instructions to AEGIS BMD, with a copy to the cognizant Contract Administration Office if shipping instructions have not been provided within sixty (60) days prior to the first scheduled delivery date. The Contractor shall not ship directly to a military air or water port terminal without authorization by the cognizant Contract Administration Office.

The Government reserves the right to require the Contractor to Deliver-in-Place or otherwise store at no additional cost to the Government, any or all items until required for final delivery to the final desintation. In addition, phased delivery shall be accommodated and supported by the Contractor as required by the Government.

10.3 Packaging Instructions

The Contractor shall package and mark each Flight Test AUR in accordance with Attachment 9-SM-3 All Up Round Processing & Recertification Requirements document.

The Contractor shall ship Guidance, Control and Airframe (G, C&A) Sections/components from the factory to the AUR facility, and return, using applicable G, C&A shipping containers or in accordance with ASTM D 3951-98. The Contractor shall obtain a Certificate of Equivalence (COE) for all shipping in accordance with ASTM D 3951-98.

The Contractor shall mark all shipments under this contract using the guidance of MIL-STD-129P (3), as modified by the Special Shipping Marking and Packing Instructions, as well as Title 49 CFR. These markings are provided in NAVSEA SW020-AC-SAF-010/020/030. Any Competent Authority Approvals (CAAs), Certificates of Equivalence (COE) or Performance Oriented Packaging (POP) test markings that are not present in NAVSEA SW020-AC-SAF-010/020/030 shall be obtained from the NSWC IHD, G1 DETACHMENT PICATINNEY, PHST Center, BLDG 468 Whittemore Ave, PICATINNEY, NJ 07806-5000.

10.3.1 Packing List(s)

A packing list (DD Form 250 may be used) identifying the contents of each shipment, shipping container or palletized unit load shall be provided by the Contractor with each shipment using the guidance of MIL-STD-129P(3). When a Line Item identified under a single stock number includes an assortment of related Items such as kit or set components, detached parts or accessories, installation hardware or material, the packing list(s) shall identify the assorted items. Where DD Form 1348-1 or DD Form 1348-1A is applicable and an assortment of related Items is included in the shipping container, a packing list identifying the contents shall be furnished.

10.3.2 Master Packing List

In addition to the requirements in section 7.3.1 Packing List(s), a master packing list shall be prepared where more than one (1) shipment, shipping container or palletized unit load comprise the Line Item being shipped. The master packing list shall be attached to the number one (1) container and so identified.

10.3.3 Hazardous Materials Packaging

Any Hazardous Materials (HM) to be furnished hereunder shall be prepared for transportation in accordance with the Performance Oriented Packaging (POP) Standards, as prescribed by the Department of Transportation's Title 49 CFR, Parts 107-178. The Contractor shall provide all POP specifications for HM requiring POP packaging. The Contractor's signed certification that the packaging and markings conform to the requirements shall be incorporated on DD Form 250, "Material Inspection and Receiving Report," or other related acceptance document if DD Form 250 is not used.

10.4 Marking

Shipments, shipping containers and palletized unit loads shall be marked using the guidance of MIL-STD-129P (4).

10.4.1 Part Identification

All Items within the kit, set, installation hardware or material shall be suitably segregated and identified within the unit pack(s) or shipping container by part number and/or National Stock Number (NSN). Use MIL-STD-129P (4) for guidance for marking of assorted (related-unrelated) Items.

10.4.2 Missile Marking

Missiles shall be prepared for shipment or storage in accordance with the applicable Standard Missile packing document using the applicable OR-68 as guidance and the applicable Raytheon SM-3 Work Instructions. The following documentation, comprising the Missile log, shall be provided with each Missile scheduled for shipment:

- a. Configuration Data Lists (Missile Sections and telemetry units);
- b. Guided Missile (GM) Propulsion Unit Data Sheet;
- c. GM Propulsion Unit History Sheet;
- d. Test Traveler Cards; and
- e. NAVSEA Form 4790/5(2C) Missile/Propulsion Unit Log

10.4.3 Marking of Inert Operating Missiles

The Contractor shall identify Inert Operating Missiles (IOM) and other non-flight Engineering hardware, sections, subassemblies, etc. which are compliant to the Technical Data Package (TDP) with the additional minimum identification of "Not for Production Use" in accordance with OD-OPS-016.

10.4.4 Identification Marking of Parts

Identification marking of individual parts within the systems, equipments, assemblies, subassemblies, components, groups, sets or kits, and of spare and repair parts shall be done in accordance with applicable specifications and drawings. To the extent identification marking of such parts is not specified in applicable specifications or drawings, such marking shall be accomplished in accordance with the following:

(1) Parts shall be marked in accordance with generally accepted commercial practice.

(2) In cases where parts are so small as not to permit identification marking as provided above, such parts shall be appropriately coded so as to permit ready identification.

10.4.5 Marking of Reports

All reports delivered by the Contractor to the Government under this contract shall prominently show on the cover of the report:

(1) Name and business address of the Contractor

- (2) Contract number
- (3) Contract dollar amount
- (4) Whether the contract was competitively or non-competitively awarded
- (5) Sponsor Information

10.4.6 Distribution Statement

This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S. C., Sec 2751, et seq.) or the Export Administration Act of 1979, as amended, Title 50, U.S.C., App. 2401 et seq. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25.

Distribution authorized to the Department of Defense (DoD) and United States (US) DoD Contractors only (critical technology) (30 June 2008). Other requests shall be referred to MDA/AB.

10.5 Missile Containers

Missiles and components shall not be stored, issued, or shipped in unserviceable containers. Containers with minor damage may, however, be used for transporting or short-term storage within the assembly building, provided damage does not interfere with normal storage or with the securing of the item in the container. Damaged containers may be repaired in accordance with the applicable OR-99B procedures. Damaged missile component containers shall be reported to the Naval PHST Center, NSWC IHD Det Picatinny Code G11 and MDA/AB for disposition instructions.

11.0 Travel Costs

The Contractor shall be reimbursed for its reasonable actual travel costs in accordance with FAR 31.205-46. The costs to be reimbursed shall be those costs accepted by the cognizant DCAA. Business Class travel is not authorized.

Reimbursable travel costs include only that travel performed from the Contractor's facility to the worksite, in and around the worksite, and from the worksite to the Contractor's facility. Relocation costs and travel costs incident to relocation are allowable to the extent provided in FAR 31.205-35; however, Contracting Officer approval shall be required prior to incurring relocation expenses and travel costs incident to relocation. The Contractor shall not be reimbursed for the following daily local travel costs: travel at U.S. Military Installations where Government transportation is available, travel performed for personal convenience/errands, including commuting to and from work, and travel costs incurred in the replacement of personnel when such replacement is accomplished for the Contractor's or employee's convenience.

12.0 Small Business Utilization

The Contractor shall submit, per CDRL A012, the Small Business Performance data on SM-3 Block IB to include where appropriate the following specific activities to maximize small business participation:

- Expand the pool of qualified small businesses through increased competition for production of components and piece parts in MDA acquired systems.

- Engage small businesses to serve as second sources in order to mitigate the risks of single point failures in the supply chain and increase the quality of supplies or services
- Efforts to leverage Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) program funded technologies with high potential for transition into the SM-3 Block IB manufacturing efforts.

APPENDIX A: List of Acronyms

A&E	Ammunition and Explosives
ACO	Administrative Contracting Officer
ACS	Attitude Control System
ACA	Attitude Control Assembly
ADPMPL	As-Designed Parts, Materials and Processes List
AFD	Arm-Fire Device
ATC	Authorization to Connect
ATO	Approval to Operate
AUR	All Up Round
AURF	All Up Round Facility
AWS	Aegis Weapon System
BLK	Block
BMDS	Ballistic Missile Defense System
C&A	Certification & Accreditation
CAAs	Competent Authority Approvals
CCDR	Contractor Cost Data Reporting
CCM	Common Cost Methodologies
CDL	Configuration Data List
CDRL	Contract Data Requirements List
CLO	Counter Low Observable
CM	Configuration Management
CMP	Configuration Management Plan
CNSS	Committee on National Security Systems
CIDS	Critical Item Development Specification
COE	Certificate of Equivalence
COMSEC	Communications Security
COR	Contracting Officers Representative
COTR	Contracting Officer's Technical Representative
CPI	Critical Program Information
CT	Critical Technologies
CWG	Cost Working Group
DAA	Designated Approving Authority
DACS	Divert Attitude Control System
DFARS	Defense Federal Acquisition Regulation Supplement
DLMF	Depot Level Maintenance Facility
DM	Data Management
DMEA	Defense Microelectronic Activity
DMSMS	Diminishing Manufacturing Sources and Material Shortages
DOT	Department of Transportation
DSS	Defense Security System
DTRM	Dual Thrust Rocket Motor
EMRLs	Engineering and Manufacturing Readiness Levels
ENB	Engineering Notebook
ESS	Environmental Stress Screening
FACO	Facility and Check-Out
FCA	Facility Checklist Assessment
FTS	Flight Termination System
FRACAS	Failure Reporting, Analysis and Corrective Action System
GC&A	Guidance, Control & Airframe

GFE	Government Furnished Equipment
GFP	Government Furnished Property
GIDEP	Government Industry Data Exchange Program
GMA	Guided Missile Assembly
GMR	Guided Missile Round
IA	Information Assurance
IA/CND	Information Assurance/Computer Network Defense
IATT	Interim Authority To Test
IBR	Integrated Baseline Review
ILS	Integrated Logistics Support
IPMR	Integrated Program Management Report
IPR	In-Process Review
IPT	Integrated Product Team
ISSMP	Integrated System Safety Management Plan
IUID	Item Unique Identification
KW	Kinetic Warhead
LO	Low Observable
M/PUL	Missile / Propulsion Unit Log
MAC	Mission Assurance Compliance
MAIP	Mission Assurance Implementation Plan
MAP	MDA Assurance Provisions
MAPL	Manufacturing Assembly Parts Listing
MDA	Missile Defense Agency
MFA	Mission Focused Audit
MIRR	Material Inspection Receiving Report
MOTS	Modular Ordnance Test Set
M/PUL	Missile/Propulsion Unit Log
MRA	Manufacturing Readiness Assessment
MRB	Material Review Board
MRR	Manufacturing Readiness Reviews
MSM	Manufacturing Surveillance Motor
MSTIC	MDA Supply Chain Risk Management/Trusted Systems and Networks Integration Council
NALC	Naval Ammunition Logistics Code
NSA	National Security Agency
NSN	National Stock Number
NAVSEA	Naval Sea Systems Command
NIPSOM	National Industrial Security Program Operating Manual
NSWC	Naval Surface Warfare Center
NSTISSAM	National Security Telecommunications and Information Systems Security Advisory Memorandum
NSTISSI	National Security Telecommunications and Information Systems Information
NSTISSP	National Security Telecommunications and Information Systems Security Policy
OA	Ordnance Assessment
OHE	Ordnance Handling Equipment
OIS	Ordnance Information System

OPSEC	Operations Security
PCI	Periodic Conformance Inspection
PCO	Procuring Contracting Officer
PDM	Product Data Management
PHS&T	Packaging, Handling, Storage and Transportation
PI	Preliminary Inquiry
PIDS	Prime Item Development Specification
PMAP	Parts, Materials and Processes Mission Assurance Plan
PMP	Parts, Materials and Processes
PMPWG	PMP Working Group
PMPB	PMP Board
PMR	Program Management Review
POP	Performance Oriented Packaging
PIIP	Program Protection Implementation Plan
PPP	Program Protection Plan
PTD	Provisioning Technical Documentation
QSMa	Quality, Safety, Mission Assurance
REA	Responsible Engineering Agent
RFI	Ready for Issue
SA	Staging Assembly
SAD	Safe-Arm Device
SCRM	Supply Chain Risk Management
SCS	Steering Control Section
SE	Systems Engineering
SI	Security Intelligence
SM-3	Standard Missile-3
SOP	Standard Operating Procedures
SOW	Statement of Work
SPC	Statistical Process Control
SSE	System Security Engineering
STE	Special Test Equipment
SVA	System Vulnerability Analysis
TBI	Thru Bulkhead Initiator
TDACS	Throttleable Divert Attitude Control System
TDP	Technical Data Package
TE	Test Equipment
TLR	Top Level Requirements
TSRM	Third Stage Rocket Motor
TVA	Thrust Vector Assembly
UBOB	Umbilical Break Out Box
UID	Unique Identification
VLS	Vertical Launching System
VV&A	Verification, Validation and Accreditation
WBS	Work Breakdown Structure

APPENDIX B: CONTRACTOR FORMAT DOCUMENTATION

DESCRIPTION	SOW SECTION	FREQUENCY
Manufacturing Support Metrics	1.1, 2.12	Monthly
FRACAS Plan	1.3.3	45 DAC
ESS Process/Plan	1.3.3	45 days
Reliability Prediction	1.3.3	45 DAC
Failure Summary Report	1.3.3	Monthly
Failure Reporting and Corrective Action Report	1.3.3	As Required
ESS Effectiveness Analysis Report	1.3.3	Semi-Annual
PHS&T Maintenance Documentation	1.3.5	As Required with Approval Required from Picatinny
MAPL	1.3.4.1	As Required
Demil Plans	1.3.2, 2.10	As Required
DMSMS Metrics	2.12	As Required
Life of Type Buy Assessment	2.12	As Required
Obsolescence Management Plan	2.7	As Required
Obsolescence Assessment of the Bill of Materials (BOM)	2.7	Semi-Annual
Logistics Documentation	3.0	As Required
Management Review Support (Agenda, Presentation etc.)	4.1	As Required for the following events – PMR, Mini Tech, Business Reviews, IBR and MRR
Configuration Management Plan	4.5.b	As Required
Historical Archive	4.5.b	As Required
Engineering Notebook	4.5.c	As Required
Component Level Missile Configuration Data	5.1	– Deliver to Corona in PDM
SM 3 BLK IB Maintenance Plan	5.1	As Required
SM-3 Mission Assurance and Quality Report	6.2	Monthly
Parts, Materials, and Processes Management Plan (PMPMP)	6.2.1	Within 45 days of contract award
As-Designed Parts, Materials and Processes List (ADPMPL)	6.2.1	Semi-Annual
Audit Schedule	6.2.2	60 DAC; Monthly
Software Specification Technical Documents	6.3	As Required
Supplier Management Plan	6.4	As Required
Dock-to-Stock program certificates of compliance	4.9	As Required

DESCRIPTION	SOW SECTION	FREQUENCY
Supplier Management Report	6.4	Quarterly
Hazardous Material Control and Management Plan	6.0	As Required

All Appendix B deliveries shall be submitted via the contractor's Product Data Management (PDM) system. The Contractor shall respond to the Government comments within 45 days of receipt of comments.