

ATTACHMENT (2):
MDSET (I) STATEMENT OF WORK (SOW)

Part 5

Dated – 29 March 2011

Effective – 1 April 2011

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1.0 BACKGROUND

1.1 Objectives

The MDA System Engineering and Integration (SE&I) objective is to provide guidance to all Missile Defense Agency (MDA) organizations using collaborative processes and tools to synchronize essential system engineering actions and allow flexibility in developing and fielding Ballistic Missile Defense System (BMDS) capabilities in an expedited manner to counter current and emerging ballistic missile threats.

1.2 Scope

This Statement of Work (SOW) establishes the common structure for the Missile Defense System Engineering Team (MDSET) to acquire and manage resources from all communities. The MDSET is currently composed of four major communities: 1) Government, 2) Industry, 3) Federally Funded Research and Development Centers/University Associated Research Centers (FFRDC/UARC), and 4) System Engineering and Technical Assistance (SETA) organizations, as well as numerous subcontractors and other agreements.

Sections 1.0 and 2.0 are provided as a conceptual framework for the entire MDSET. However, the purpose of Section 3.0 is to clarify the specific scope of work to be performed by MDSET Industry (MDSET (I)) within the context of the overall MDSET organization.

1.3 MDSET Organizational Development

MDA created the Missile Defense National Team (MDNT) (Industry) to help transform the Ballistic Missile Defense Program. Within the MDNT, two teams were formed. MDNT Systems (MDNTS), now known as the Missile Defense System Engineering Team (MDSET), focuses on systems engineering and the second team, known as MDNTB, focuses on Command and Control, Battle Management, and Communications (C2BMC). Both teams included an industry-led component, which works in concert with the Government to establish the framework for the integrated BMDS.

A firewall was established around the two MDNT teams to prevent conflict of interest, to protect proprietary information, and to ensure the integrity of future competitions. All MDNT personnel are required to sign a Confidential Disclosure Agreement (CDA) and Limitation of Future Assignments (LFA). The information infrastructure of these teams includes hardware protection and procedures to protect proprietary and sensitive information. Document marking and procedures for "MDNT Controlled Data" or "MDSET Controlled Data" provide additional protection and formal processes for distribution outside the firewall. Based on lessons learned during the previous phases of this contract, the Director for System Engineering and Integration realigned the MDNTS organization using a collaborative, systems engineering functional approach. During 2005/2006, the MDNTS was further integrated into seamless three-letter directorates consistent with the MDA/SE organizational structure and was renamed as the MDSET.



The MDA reorganized to a more streamlined structure in July 2006 and updated that structure in May 2009. This last reorganization updated the Deputy for Engineering to the Director for Engineering (DE). The Systems Engineering and Integration Directorate (DEE) created in July 2006 and reorganized to the MDA Systems Engineer (DE/E) in 2009, is responsible for the MDSET team. MDSET product teams approximately correspond to DE/E functional teams. Additionally, this latest reorganization added a Chief Engineer in parallel with the System Engineer to bring more focus to the hardware and software design for each MDA Element. Each Element program now includes both a System Engineer and a Chief Engineer reporting to the MDA System Engineer and Chief Engineer, respectively.

1.4 The MDSET Role

The MDSET supports the objective defined in Section 1.1 by providing coordination, integration, and system development of new concepts for enhanced BMDS capabilities; an integrated and layered BMDS Architecture; developing Build technical definitions traced and allocated to Element development requirements; and planning integration, test event, and assessment strategies with associated supportive schedules leading to a defined BMDS deployment increment. Integration of BMDS Elements into an integrated and layered BMDS Architecture is based on designs from both inside and outside of the MDSET. BMDS technical definitions, analysis, and assessments of BMDS performance and the integration of each of the BMDS Elements are developed based on the Government-provided capability goals (including but not limited to the BMDS Technical Objectives and Goals (TOG) and the BMDS Accountability Report (BAR)) and the common threat as defined in the Adversary Capability Document (ACD).

The MDA BMDS capabilities-based system engineering process, as defined within the System Engineering Plan (SEP), is conducted throughout the development cycle of the BMDS. The MDA system engineering process meets the intent of, and tailors, traditional Department of Defense (DoD) acquisition phases.

MDSET products are used to provide direction and enhance integration of the BMDS Elements. Additionally, MDSET interfaces with internal MDA and external organizations to include the Warfighters to properly develop and integrate the BMDS.

The MDSET is also responsible for developing prototype programs, system level definition and requirements for and concepts for enhancement to the BMDS. The prototype programs and enhancements are reviewed by MDA executive management and by independent "peer review" teams through a structured review process. Review assessments evaluate whether to accelerate, modify, or add capabilities based on technology progress, resulting Build capabilities and national and military needs. Assessment factors include changes in BMDS capability, schedule, risk, and life cycle cost that will in turn be incorporated into future concepts, designs, and implementations.

1.5 MDSET Concept of Operations

The Government provides the overall management of the BMDS program and participates within the MDSET itself. The Government retains Total System Performance Responsibility

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(TSPR) for the BMDS. Each MDSET Industry partner has a lead manager responsible for decisions not otherwise reserved by the Government, e.g., personnel actions, recruiting, parking, salary/benefits, etc. Agreement authority for execution of work flows through the Government to MDSET Industry Team. Consequently, the appropriate Government program office provides direction to all organizations and personnel.

The MDSET (I) is a unique team structure where an industrial structure is applied to Ballistic Missile Defense (BMD) while complying with governmental acquisition regulations. The MDSET (I) operates as an integrated, industry team drawing resources from the range of community contracts available to the MDSET (I). The combination of resources of the individual communities forms an integrated team to accomplish necessary engineering for the BMDS. Members are selected to participate in team activities based on skills and knowledge independent of organization affiliation. In addition, because of the dynamic and complex system engineering tasks, the structure accommodates acquisition of unique skills and experience from participating organizations and rapid deployment of task teams to solve specific problems. The defined matrix style structure allows flexibility and depth to accomplish both of these managerial objectives.

The goal of this non-traditional MDSET Industry Team-government relationship is to ensure that innovative ideas and solutions are shared and considered at all levels of each organization involved, and with other community members.

1.5.1 Each community provides resources and services to the MDSET (I) that facilitate its operation including:

- a) Supporting the implementation of engineering, integration, and assessment process that develops, allocates, and assesses integrated design requirements responsive to the Government-provided data, documentation and other direction.
- b) Supporting the design and integration of a cost effective and operationally suitable BMDS against the full and evolving threat spectrum, defined by the MDA System Engineer encompassing an evolutionary and spiral build development and deployment approach.**
- c) Cultivating a collaborative, positive, and professional relationship among all MDSET (I) team members. The MDA System Engineer fully expects each community to assign the best professional talent independent of corporate affiliation.
- d) Using a system for paperless delivery of information among all members of the MDSET (I). The system must leverage the MDA Information Infrastructure for UNCLASSIFIED and SECRET level processing; protect proprietary information provided to the MDSET (I); and provide common, MDA portal-based access to all MDSET (I) information and services regardless of location for all MDSET (I) users as prescribed by the firewall.

1.5.2 Each Contract will manage and account for their resources to Program Control, including:

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- a) Conducting management and technical reviews of its performance for the Government.
- b) Ensuring timely notification for MDSET participation in the MDSET's Industry Team management and technical team meetings or other such working group meetings throughout the BMDS development.
- c) Ensuring that performance is in accordance with applicable DoD-, Industrial-, MDA-, and program-level security policies and guidance.
- d) Maintaining intra-team agreements and appropriate relationship with BMDS Element contracts, as required.

These factors will be incorporated into each contract, where appropriate.

1.6 Applicable Documents

The documents listed below provide the basis for the MDSET (I) guidance and agreement framework.

- a) Secretary of Defense Memorandum, Missile Defense Program Direction – established the Missile Defense Agency - Dated 02 Jan 2002.
- b) BMDO Letter, HQ0006-02-9-0001, CTP/MDNTS/02-001 - Dated 04 Jan 2002.
- c) Ballistic Missile Defense Integrated Program Policy Implementation Guide, Version 2.0, Dated 02 Jun 2005.
- d) MDA Ballistic Missile Defense System Engineering Program, Systems Engineering Plan (SEP), Rev 0, Dated 13 Jun 2006.
- e) Statement of Objectives for BMD, BMDS MDNTS Lead, v1-2, dtd 13 Dec 2001.
- f) Statement of Objectives for BMD, BMDS MDNTS Lead, version 2.231, 04 Apr 2002.
- g) Ballistic Missile Defense System Technical Objectives and Goals (BMDS TOG), Dated 07 May 2002.
- h) Ballistic Missile Defense System, Systems Engineering And Integration (SE&I) Agreement No: HQ0006-02-9-0001, Dated 15 Feb 2002.
- i) Under Secretary of Defense (AT&L) Memorandum, Ballistic Missile Defense Program Implementation Guidance, Dated 13 Feb 2002.
- j) National Security Policy Directive (NSPD) 23 – provides direction to implement the Initial Defense Operational capability, Dated 16 Dec 2002.
- k) BMDS Security Classification Guide, Dated 26 Apr 2004.



2.0 MDSET OPERATING STRUCTURE

The following sections describe the organization, associated operating procedures, and rationale.

2.1 MDSET Systems Engineering Process

The MDA System Engineer leads the systems engineering process and participates throughout it, with primary focus on the Plan, Define, and System Design phases.

Figure 2-1 depicts the capabilities-based system engineering process phases used for developing the integrated BMDS in the form of a "Systems Engineering V". In this system engineering "V", MDA "FIELDS" achieved capability and adjusts "PLANS" accordingly, "ASSESSES" capability with respect to what was "DEFINED", "VERIFIES" capability with respect to what was "DESIGNED", and "INTEGRATES" capability as it is "BUILT". The process is event-driven and knowledge-based. Additionally, the MDSET will "plan", "define", and "design" BMDS System capabilities that will be allocated to the Elements to be "built". These BMDS System capabilities will then be "tested", "verified", and "assessed" before being "fielded" by MDA.

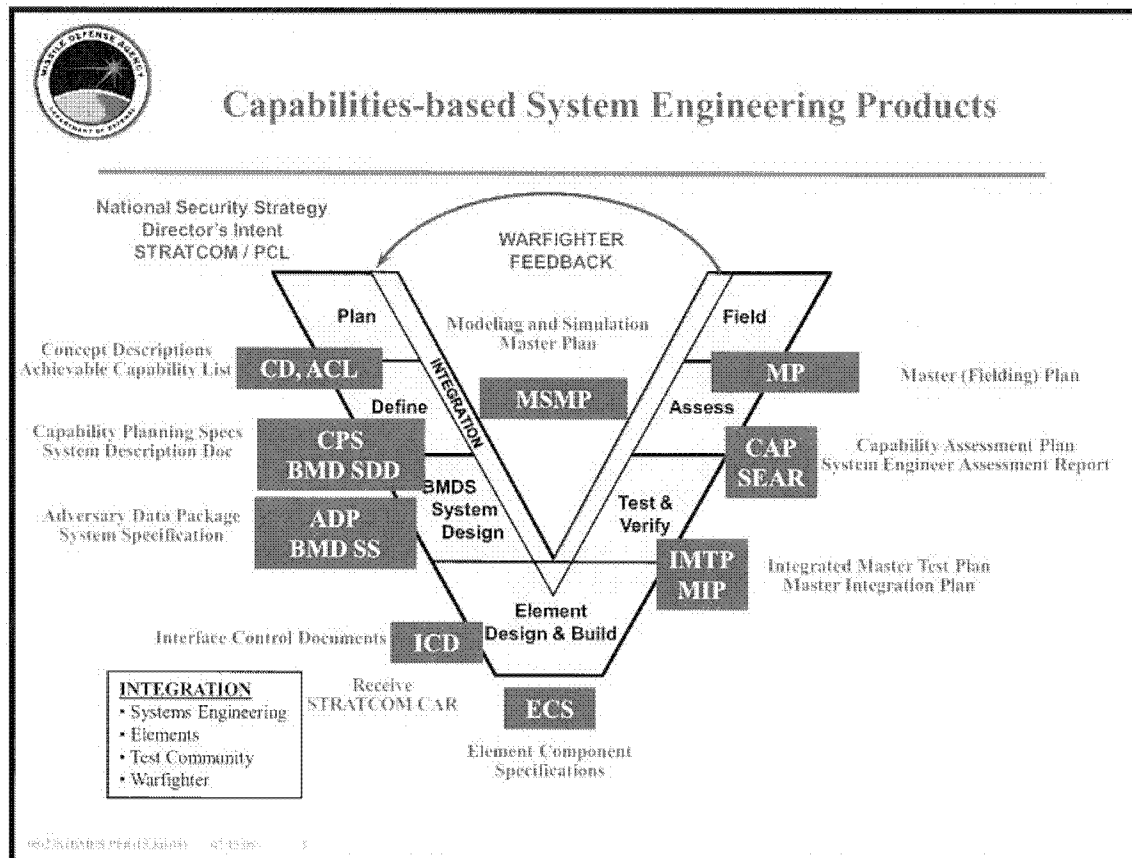


Figure 2-1. System Engineering "V" Used by the MDSET

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Elements and other MDA engineering organizations also participate throughout the system engineering process and play key roles in design and verification that were traditional system engineering functions in requirements-based engineering programs. The capabilities-based system engineering process is highly collaborative between the system and subsystem levels and simultaneous rather than serial. Ideally, Combatant Commands (COCOM) are involved through the Warfighter Involvement Process (WIP) in all phases of the capabilities-based system engineering process.

The MDSET will lead the definition and development, through collaborative processes and methods of the integrated BMDS. The BMDS development plan will provide the planned content for the BMDS spiral/increment and will be synchronized with Element baselines.

2.2 Missile Defense System Engineering Functional Structure

The MDSET program organization structure generally corresponds to the phases of the systems engineering process.

- The first three groups in the MDSET organizational structure – Concepts and Planning (CPT), System Design and Requirements (SD&R), Integration and Verification Engineering (IVT) - execute the major BMD system engineering spirals. CPT is responsible for the capture, definition, and development of future concepts in technology development that lead to updated or new BMDS capabilities. CPT provides the enterprise coordination across the MDA Engineering enterprise to reduce technology risk and mature future concepts to be integrated into the BMDS. SD&R leads the collaborative systems engineering that identifies and defines the system design, capability requirements, and architecture of the Integrated BMDS. Additionally, SD&R maintains configuration control of the requirements, system architecture, and all development products. Operational and Integration Support, addressed by IVT, works to involve the user throughout the engineering process in order to balance the user's needs and desires with the defined technical baseline.
- Threat Systems Engineering (DET) and System Assessment and Analysis Engineering (AAT) provide technical and analysis support across the MDSET.
- Modeling and Simulation Team (M&ST) supports MDA/DES approach by providing product and collaboration focused modeling and simulation (M&S) systems. For coordination purposes, M&ST will establish functional POCs and designated functional POC's from stakeholder groups to facilitate technical and programmatic information exchange.
- Program Control (PCT) provides overall program support for the MDSET, the Director of Engineering, the MDA System Engineer, the Director of Engineering Execution, and the overall process. This SOW applies only to MDSET (I) components of these MDSET work groups. All SOW-identified "shall" statements apply only to MDSET (I).



2.3 Director for Engineering and the BMD System Engineering Integration Council

When the Missile Defense Agency reorganized to a more streamlined structure in July 2006, the MDA Director delegated capabilities-based design and development to the Director for Engineering, MDA/DE. In this role, MDA/DE is responsible for senior-level oversight of all major system-level design reviews and associated activities. To accomplish this broad task, the Director for Engineering established positions of MDA Systems Engineer and MDA Chief Engineer. Each Element Program contains an Element System Engineer and Element Chief Engineer reporting to their respective MDA/DE lead to implement and foster the processes and principles of their respective roles. MDA/DE (with MDSET senior consultation as requested) advises the BMDS Element program management leadership on system-level design and development implementation strategies and provides formal MDA interface to U.S. Strategic Command (USSTRATCOM) in conjunction with the applicable MDA two-letters and the Director's concurrence. Although the MDA System Engineer is the MDSET (I) primary customer, MDSET (I) may be asked to support MDA/DE activities in coordination with the MDA System Engineer.

The MDSET supports the collaboration of BMDS engineering teams within the system engineering process via the System Engineering Integration Council (SEIC) led by the MDA System Engineer. The BMDS Program Change Board (PCB) approves technical, cost, schedule and contract baselines, as well as test configuration control and operational configuration management. The Integration Synchronization Group (ISG), PMD Execution Review (PER), Program Review, and Operational Review give programmatic support, such as providing venues for the assessment of program progress and issue resolution, to BMDS Engineering. Finally, the Executive Management Board (EMB) directs BMDS program compliance (see Figure 2-2).



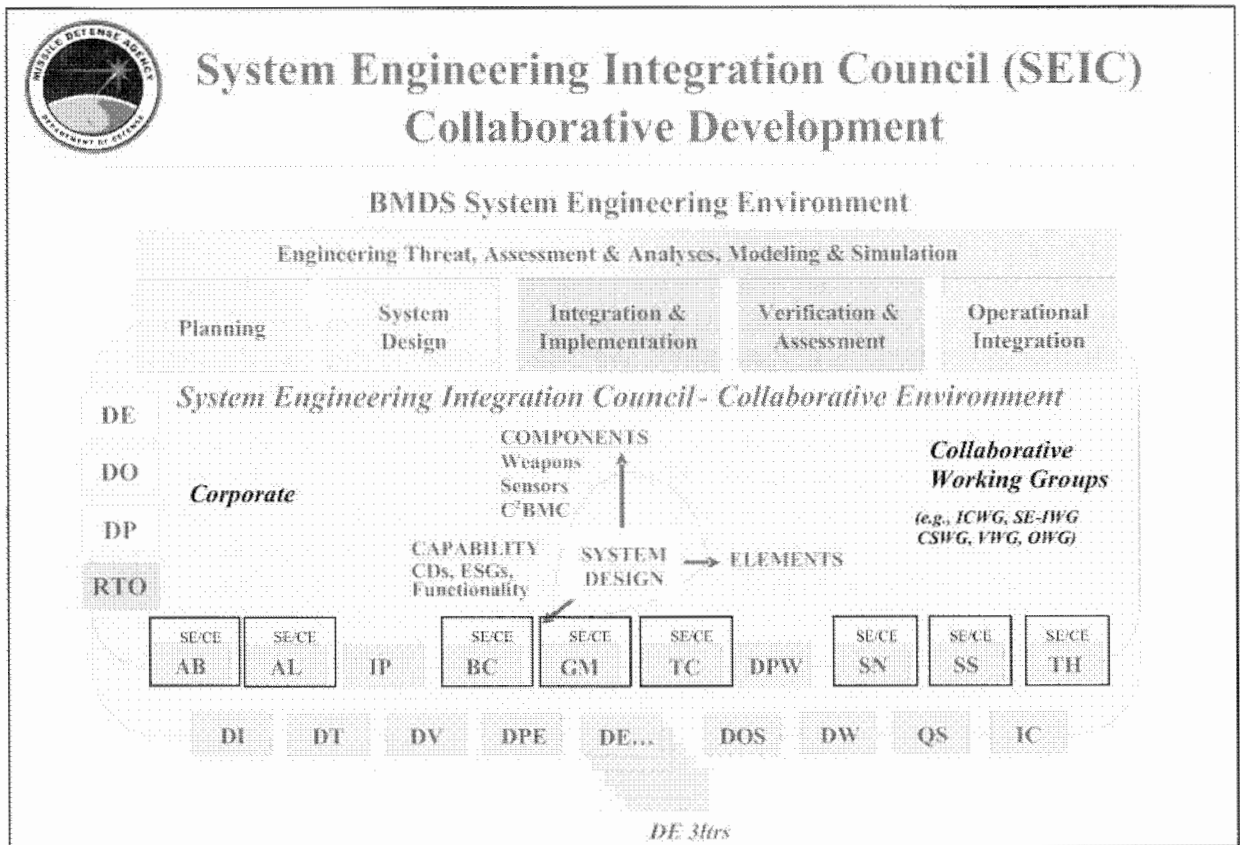


Figure 2-2. The SEIC Collaborative Environment

2.4 Additional Operational Roles

In order to properly develop and integrate the BMDs, the MDSET must interface with diverse groups involved with the system as required by our customer. These may include, but are not limited to, the Element programs and MDA organizations described in Section 2.3. Particular interaction and coordination are expected with the MDNTB to ensure efficient and effective implementation of the integrated, layered Ballistic Missile Defense System.



3.0 MDSET (I) STATEMENT OF WORK

This SOW pertains only to MDSET(I) support of the overall MDSET organization, which is comprised of government, FFRDC, SETA, and industry constituents. The MDSET (I) shall provide the engineering resources and products that span most aspects of the end-to-end System design for the BMDS. Specifically, the MDSET (I) shall be functionally organized to implement Concepts and Planning (CPT), System Design & Requirements (SD&R), Integration and Verification (IVT), and System Assessment and Analysis (AAT) engineering processes, yielding the associated engineering products (identified explicitly in the following sections and in the ADRL list). At a summary level, the functional responsibilities of MDSET(I) components of these teams and their interrelationships are described as:

- a) For CPT: the MDSET(I) shall perform system development, support technology developments, and perform enterprise engineering to coordinate new or updated capabilities across the BMDS (Engineering, Elements, etc). CPT shall capture and document this capability within Capability Planning Specifications (CPS) in support of MDA decision boards. MDSET(I) shall execute the new capability insertion process to conduct preliminary integration of advanced capabilities and enhancements into the BMDS, develop decision material to support the MDA prioritization and adjudication process, and provide coordination of approved new capabilities via the MDA acquisition and system engineering processes.
- b) For SD&R: the MDSET(I) shall generate system-level design packages associated with the new capabilities to be added to the BMDS following MDA Director for Engineering milestone review (e.g. Technical Review Board or equivalent) approval for insertion into the integrated build content and MDA Systems Engineer authorization. This new content will be captured as additions to the BMD System Description Document (SDD) and will be the basis for development of additions to the Ballistic Missile Defense System Specification (BMD SS). The BMD SS captures the system-level specifications for the BMDS content as described in the BMD SDD. SD&R is also responsible for generating the appropriate BMD System Interface Control Documents to complete the design description and developing the detailed engineering required to provide direction for the executing programs.
- c) For IVT, the MDSET(I) shall use the content, scope, and design definition as specified in the BMD SS to develop and document the BMDS-level integration and verification plan. MDSET(I) shall use the Master Integration Plan (MIP) to capture that planning. MDSET(I) shall also support test planning at the BMDS-level through the development of associated test objectives for key system-level flight and ground tests, captured in test objective memorandums (TOM). Also, MDSET(I) shall support test design to support Model and Simulation validation that confirms performance to system-level specifications.
- d) For AAT, MDSET(I) shall provide analytical capabilities to CPT, SD&R, and IVT to enable their respective functions. AAT provides the necessary maintenance and integration of the relevant analysis tools. AAT also provides analytical resources in direct support of the MDA/DE front office in coordination with MDA/DE/E.

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- e) For M&ST, MDSET(I) shall adopt the basic approach of working at the system level with MDA/DES in defining the top-level M&S on an annual basis. MDSET shall collect M&S Stakeholder Needs and develop Capability Statements and Capability Packages. Then, MDSET shall add narrative content and produce the Capability Planning Specifications (CPS).

The following sections describe the functions that provide the primary work breakdown structure for labor cost proposals. Each section describes additional functional detail and the list of products.

All MDSET (I) groups shall perform the following tasks, as required.

- f) Participate in applicable MDA technical and programmatic meetings and working groups.
- g) Support applicable MDA Working Groups, Peer Reviews, and Review Boards.
- h) Respond to routine correspondence tasks, action items, etc.
- i) Interact and coordinate with COCOMs, Elements, and other coordinating offices on specific Systems Engineering and integration issues.
- j) Work cooperatively with all MDA organizations through meetings and tasks.
- k) (FOUO) Support Sensitive Compartmented Information (SCI) programs and efforts (e.g., develop concepts, perform analyses, document capabilities via Capability Integration Plans (CIP) resolve warfighter issues, etc.).
- l) Produce analysis plans, event objectives, event goals and operational concepts as required.

3.1 Concepts and Planning (CPT)

The MDSET(I) Concepts and Planning Team (CPT) shall develop program definition of new potential system-level capabilities. The CPT shall perform technology and capability development for future concepts and conduct enterprise coordination across the MDA Engineering enterprise. CPT shall execute the new capability insertion process to reduce technology risk and mature advanced capabilities and enhancements to be integrated into the BMDS, develop decision material to support the MDA prioritization and adjudication process, and provide coordination to integrate new capabilities via the MDA acquisition and system engineering processes. In addition, CPT shall serve as the MDSET (I) focal point for coordinating new capabilities and demonstrations with MDA/DV, and as the MDSET (I) technical interface for the MDA/DE BMDS Roadmap.

3.1.1 Functions

3.1.1.1 Capability Insertion

- a) CPT shall identify and coordinate candidate capability concepts and candidate technology development that will enhance BMDS capabilities.



- b) CPT shall coordinate candidate capabilities with MDA/DV. The MDSET(I) shall maintain an understanding of the status of technology concepts and components developed by the Advanced Technology Directorate.
- c) CPT shall capture new capabilities within Capability Planning and Description documents and provide recommend changes to the BMD System Description Document to integrate them into the BMDS technical baseline when sufficiently mature.
- d) CPT shall coordinate new capability trades and evaluations across the BMDS.

3.1.1.2 Products

- a) The MDSET (I) shall produce and deliver new Capability Reference Material (e.g., Capability Description Package, Capability Planning Specification).

3.2 System Design and Requirements Team

SD&R leads the collaborative systems engineering that identifies and defines the system design, capability requirements, and architecture of the Integrated BMDS. SD&R shall provide the overall engineering and system design for the next build of the Integrated BMDS. Upon TRB approval and MDA/DED authorization, the process begins with the Future BMDS capabilities captured in the BMD SDD and New Capability Reference Material from Concept and Planning PT (CPT). SD&R shall define the system design, capability requirements, and architecture development. Ultimately, this collaborative engineering process will result in the content for the BMD SDD, BMD SS, BMD System Interface Control Documents (BMD SICD), and associated change notices (SCNs or DCNs). Additionally, SD&R shall maintain the BMDS architecture and configuration control of the development and design activities for the generation of the BMD SDD, BMD SS, and BMD SICDs; and produce and deliver the resulting documents. SD&R shall also maintain configuration control of the system architecture by defining the processes for operation, training and maintenance of Dynamic Object Oriented Requirements System (DOORS) and System Architect tools. This activity includes supporting Element Trace analysis and support of design activities.

3.2.1 Functions

3.2.1.1 System Design and Requirements Management

SD&R shall support MDA/MDSET efforts and associated PT tasks by providing the following on an as required or periodic basis:

- a) Coordinate and collaborate with other MDSET product teams to ensure technical baseline product (e.g., BMD SS, BMD SDD, BMD SICDs, MIP) synergy and continuity.
- b) Support MDA approval processes (including ICWG/SEIC/ISG/PCB) by preparing and presenting informational and decision briefings for SD&R products.

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- c) Support BMDS MDA Director for Engineering milestone reviews (e.g. Technical Review Board or equivalent).
- d) Support MDA working groups, review and control boards for BMDS technical baseline products including BMDS ISG and PCB efforts.
- e) Review System and Element program strategies and inputs to budget recommendations.
- f) Establish and maintain collaborative engineering processes including with Element/Component-responsible organizations and other two-letter directorates to support design and development activities.
- g) Evaluate and support MDA System Engineering Action Items.

3.2.1.2 Detailed BMDS Engineering

The MDSET (I) shall:

- a) Lead the collaborative system engineering activities, defining the system design, system and subsystem requirements, and design architecture.
- b) Develop detailed system and subsystem behaviors and activity/sequence diagrams, including engagement sequences required to support the top-level architecture. This includes specifying system and subsystem functional requirements; system and subsystem functional performance requirements based on quantitative analysis to include timing, accuracy, error, communications latency, and handover, as appropriate; and, data exchange requirements for the baseline capabilities.
- c) Support Element detailed design implementation of allocated subsystem behaviors and requirements.
- d) Develop and coordinate BMDS-level design packages, specifications, and change notices as appropriate.
- e) Identify and document system and subsystem behaviors that support design suitability requirements (e.g., survivability; environmental; Reliability, Maintainability, and Availability (RM&A); Information Assurance; Safety; etc.) that are not engagement sequence-specific.
- f) Coordinate with the Integrated Discrimination Architecture (IDA) Team and support incorporation of IDA work into SD&R products (e.g., BMD SS and BMD SDD).
- g) Maintain and develop the BMDS design documentation (technical baseline specification and design products and supporting artifacts), for each Integrated Build.
- h) Develop and coordinate tasking for System Assessment and Analysis Engineering Team (AAT) analysis for system and subsystem performance metrics, methodology and specification of performance requirements in the BMD System Specification (BMD SS).

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- i) Maintain and develop the BMD SDD for both build and future capability development content. Maintain and develop BMDS design documentation, including design packages, BMD SS, and BMD SICDs for previous and current builds.
- j) Provide technical insight to the Integration and Verification Team (IVT) in support of capability narratives and MIP.

3.2.1.3 Specialty Engineering

The MDSET (I) shall:

- a) Develop and coordinate system and subsystem design suitability descriptions and requirements for the BMD SDD and BMD SS.
- b) Lead specialty engineering requirements development and core standards identification; conduct Core Standards Working Group collaboration for Core Standards products; define, coordinate, and maintain Core Standards List; and evaluate and provide technical insight into the BMDS Subsystem Adherence Plans to the BMDS Core Standards documented in the BMD SS.
- c) Identify BMDS environmental conditions and operational suitability design constraints including defining required BMDS RMA and Standards (Core Standards) and develop unique MDA Standards and profile existing standards to define the BMDS.
- d) Develop and coordinate requests for variances to the core standards.
- e) Support MDA as directed by MDA/DED to: provide nuclear survivability support to internal and external MDA customers (i.e., DoD, DTRA, USSTRATCOM); consult with Element program offices and contractors to ensure High Altitude Exo-Atmospheric Nuclear Survivability (HAENS) coverage.

3.2.1.4 Architecture and Design Engineering

The MDSET (I) shall:

- a) Develop and maintain BMDS Use Cases, Object Classes, and architectural views to support development and communication of the system design, including informational, functional, and physical architecture views.
- b) Provide a suite of information tools and processes to enable development, analysis, storage, and generation of system engineering artifacts.
- c) Evolve the system engineering information architecture, tools, and processes to meet the user's needs.
- d) Promote a collaborative learning environment that leverages existing knowledge-base to ensure effective use of tools and processes.
- e) Generate design packages, BMD SDD, BMD SS, and BMD SICDs for submission to MDA Engineering.

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- f) Maintain configuration control of the system architecture through defined processes for operation, training and maintenance of Dynamic Object Oriented Requirements System (DOORS) and System Architect tools and data that enable the development and design activities for generation of the BMD SDD, BMD SS, and BMD SICDs.
- g) Develop and maintain DOORS database capturing all System requirements (BMD SS and SICDs).

3.2.1.5 Interface Engineering

The MDSET (I) shall:

- a) Support BMDS ICWG with standardization and control planning, management, and interface requirements integration; support technical interface resolution; chair the ICWG Communications Study Group; support development of the network communications specification and Part 2 ICDs.
- b) Based on BMD SS data exchange requirements, identify and define data entities that require exchange; organize data entities into Information Exchange Requirements (IER); define IERs; and specify attributes of timeliness, frequency, criticality, and triggers.
- c) Maintain and develop the BMD System Interface Control Documents; perform collaborative engineering reviews with Subsystems; identify areas of concern; and resolve technical conflicts; support and lead ICWG study groups.

3.2.1.6 Requirements Traceability

The MDSET (I) shall:

- a) Establish and provide the Elements with DOORS partitions enabling System/Element and Element/System requirements traceability and identification of technical disconnects (both “widows” and “orphans”).
- b) Provide engineering expertise to support resolution of BMDS and Element trace technical disconnects.
- c) Support Element-level requirements traceability activities, to include specification review and requirements certification to ensure proper requirements flow-down and traceability.

3.2.1.7 Design Reviews

The MDSET (I) shall:

- a) Conduct System Requirements Reviews (SRR) as required.
- b) Conduct System/Subsystem Requirements Reviews (SSRR).
- c) Participate in planning of Ballistic Missile Defense System Design Reviews (SDRs) as required.

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- d) Participate in Element Requirements and Design Reviews as required.

3.2.2 Products

The MDSET (I) shall:

- a) Produce and deliver the Ballistic Missile Defense Architecture Framework and Functional Description (BMD AFFD).
- b) Produce and deliver Ballistic Missile Defense System Description Documents (BMD SDD).
- c) Produce and deliver Ballistic Missile Defense System Specifications (BMD SS).
- d) Produce and deliver Ballistic Missile Defense System Interface Control Documents Part I (BMD SICD).
- e) Produce and deliver MDA Unique BMDS Standards.

3.3 Integration and Verification (IVT)

The Integration and Verification Product Team focuses on executing system-level engineering activities needed to successfully combine the individual parts of the Elements, Components, and Subsystems into one seamlessly integrated BMDS. Integration Planning provides BMDS integration plans that define functions and capabilities by integration phase to form the basis for BMDS test event execution planning, Element plans for interfaces, and software builds necessary to execute events. System Test Objectives (STO) produced by the Integration product team support production of System Engineering Test Objective Memorandums (TOM) for key system-level test events that allocate detailed system and interface functions to BMDS test events. The Scenario Design team provides specified Critical Engagement Conditions (CEC), threat allocation, System lay downs, and stressing conditions for BMDS test and assessment events. Additionally, limited support is included to enable Build and Block assessments and response to the United States Strategic Command (USSTRATCOM) Prioritized Capabilities List (PCL) that provide engineering design expertise and integration status of BMDS capabilities.

3.3.1 Functions

3.3.1.1 Integration Management

The IVT Integration and Verification Management team supports MDA/MDSET efforts and associated product team tasks by performing the following items on an as-required or periodic basis:

- a) The MDSET (I) shall support the SEIC by preparing and presenting informational and decision briefings.
- b) The MDSET (I) shall support BMDS ISG and PCB efforts.
- c) The MDSET (I) shall coordinate and collaborate with other MDSET product teams to ensure program product synergy and continuity.

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- d) The MDSET (I) shall conduct System Design Reviews (SDR).
- e) The MDSET (I) shall support MDA program offices, MDA/DE, MDA/DP, and MDA/DT in the development of test plans to ensure that the goals and knowledge points are met.
- f) The MDSET (I) shall evaluate and support MDA System Engineer Action Items.

3.3.1.2 Integration Planning

The IVT team shall address integration planning and interface management by:

- a) Developing and maintaining a time-phased Master Integration Plan (MIP) to define integration phases associated with applicable Integrated Builds (IB) and to allocate functionality captured in system specification and interface documents to those phases. The MIP identifies Elements' interfacing builds for software, hardware, and communications that need to support BMDS design as it is defined in the BMD SS.
- b) Exercising the MIP process by identifying current BMD SS capabilities implemented by each Element and recommendations for integration of the capabilities by integration phases or increments. Supporting knowledge points for assessing BMDS capabilities, the MIP provides integration plans for the BMD SS capabilities.
- c) Tracking, using a Planning Allocation Matrix (PAM) tool, the time-phase implementation of allocated functionality in Element software builds defined in the MIP.
- d) Participating in the MDA/DP Integration Task Force (ITF) as required.

3.3.1.3 System Test Objective Memorandum (TOM)

The IVT Integration Team shall address System Test Objective Memoranda (TOM) by:

- a) Developing initial TOMs for selected system-level test events, to support the Test CONOPS Phase 1 to Phase 2 transition. TOMs provide detailed Systems and Interface functions, associated event objectives, critical engagement conditions (CEC), evaluation criteria, requested test architectures, supportive vignettes/scenarios, data collection points, and expected analysis and characterization requirements by BMDS test event.
- b) Developing and maintaining a master database of objectives and evaluation criteria for key system test events. This living database provides a master listing of the specification and key parameter traces from the BMDS to the Elements, a repository for post-test data, Element "shall" closures and rollups to various levels of system "shall" closures, and to track issues/mitigations.

3.3.1.4 Test and Assessment Scenarios Development

The IVT Integration team shall address test and assessment scenario development by:

- a) Providing detailed verification and assessment threats, associated System laydowns, required environments, and stressing conditions associated with BMDS test and



assessment events where participating Elements, test infrastructures, or models are defined.

- b) Supporting the government-led scenario certification process.

3.3.1.5 M&S Verification and Test Design

The IVT Integration team shall address M&S verification and test design by:

- a) Collaboratively with DT and the elements, providing the strategic test plan with key test points to be included within the Integrated Master Test Plan (IMTP) as part of DE required inputs.
- b) Participating in BMDS ground test strategy development efforts with represented stakeholders to ensure feasibility of test designs.
- c) Ensuring that the development of associated BMDS test execution plans for Data Element (DE) Data Management/Configuration Management (DM/CM) for Critical Engagement Condition/Data Element/Data Parameter/Test Configuration Sheet (CEC/DE/DP/TCS) database are consistent in content, intent and expectations leading to model validation.
- d) Supporting development of a Director's memorandum institutionalizing the new test design process.

3.3.1.6 Support to Test Directorate, Integration and Fielding Directorate, and Warfighter/User

The IVT Integration team shall address test directorate, integration and fielding directorate, and user/warfighter support by:

- a) Providing limited support to MDA meetings and user forums to provide engineering expertise/feedback regarding COCOM operational capability assessments and related activities.
- b) Providing system-level input and issue resolution to support BMDS operational baseline changes and related decision support activities.
- c) Providing support in coordination with other BMDS organizations' assessments, such as Operational Test Agency assessment, Air Force Operational Test and Evaluation Center assessment, USSTRATCOM Military Utility Assessment, and BMDS On-Alert capability assessment.

3.3.1.7 Test Execution

Test Execution products primarily focus on BMD System Test Planning, Execution, and Functional Assessment. The MDSET (I) shall develop products using the stated System Engineering and Element technical baselines and direct results from BMDS integration and test event that support BMDS verification and assessment tasks.

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3.3.1.7.1 Test Execution and Assessment Support

The IVT Test Execution team shall address test execution and assessment by:

- a) Representing the System Engineering Directorate during Combined Test Force (CTF) and Test Directorate (MDA/DT) planning, execution, and DE Joint Analysis Team (DEJ) activities associated with selected BMDS Flight Tests (FT) and Ground Tests (GT).
- b) Participating in BMD System-level and Element design reviews locally and providing onsite representation during selected test events to ensure real-time decisions are consistent with system engineering needs.
- c) Advocating verification and assessment objectives and scenarios and reviewing external test directives, test plans, and analysis plans.
- d) Providing the test community with read-ahead packages and engineering recommendations/solutions to ensure that MDA/DE test objectives and associated data products are integrated into test plans and reports.
- e) Producing inputs to periodic System Impact Assessment Reports (SIAR). SIARs includes assessment updates, verification status updates, system issue updates, as well as a path ahead by providing the test community with engineering recommendations and solutions to ensure that MDA/DE test objectives and associated data products are integrated into test plans and reports. SIARs are based on recent test and analysis events and independent analysis reports such as the Joint Performance Expectation Document (JPED) and the BMDS Capability Assessment (BCA). They are event-driven and may be produced up to three times per year to provide information to support BMDS fielding and deployment decisions.
- f) Providing systems engineering support at DES activities to be presented during data collection and post-test analysis with Single Stimulation Framework (SSF) utilizing live or tactical interfaces, during selected ground tests, wargames, selected flight tests, and BMDS Distributed Ground Tests (GTD). This includes monitoring event hardware/software architectures, interfaces, compatibility, configurations, as well as system function allocation control.

3.3.2 Products

- a) The MDSET (I) shall produce and deliver the BMDS MIP.
- b) The MDSET (I) shall produce and deliver initial System Engineering Test Objective Memos for selected flight and ground tests.
- c) The MDSET (I) shall produce content for the SIAR as captured on the DAL list.

3.3.2.1 Verification

BMD System-level Capability Assessment and Verification has three components: Performance Assessment, Functionality Assessment, and Verification. System-level performance assessment characterizes system performance using BMDS metrics specified in

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the BMDS BAR. BMDS Verification aggregates Element/Component verification by “rolling up” Element results based on traces between the Element capability specifications and the System Specifications. Separate performance assessments and verification are conducted with SAP/SAR capabilities overlaid on the BMDS baseline.

3.3.2.1.1 Support to Deployment of Additional Defensive Capabilities

The IVT team shall address deployment of additional defensive capabilities by:

- a) Providing guidance for creation of source data for the BMDS Handbook.

3.3.2.2 Operational Integration and Support

The IVT Operational Integration and Support team shall collect, assess, and disseminate user input and feedback on the BMDS by supporting the Director of Warfighter Interface (MDA/DW), which is the primary coordination between the MDA System Engineer and the warfighter. The IVT Operational Integration and Support team receives engineering assessments of current capabilities from IVT and shall use this information, along with the operational and functional assessment, to assist senior MDA leadership in determining if a partial capability has matured enough to be used in an operational capacity. The IVT Operational Integration and Support team shall provide liaison for internal interfaces within the MDSET and MDA organizations and perform configuration management of the operationally-available BMDS. Warfighter feedback is received via the PCL.

3.3.2.2.1 Warfighter Inputs and Requested Modifications to the Existing BMDS

The IVT team shall address Warfighter inputs by:

- a) Supporting the next version of USSTRATCOM PCL development, including support of associated M&S activity.
- b) Providing user analytical feedback to communicate capability and gap analysis.
- c) Providing an assessment of planned and programmed BMDS capabilities to meet PCL objectives.
- d) Providing MDSET systems engineering management and expertise to evaluate lessons learned, deficiency reports, and operational issues identified by MDA/DW, MDA/MOC, and USSTRATCOM.
- e) Supporting the Operational issue and resolution/closure activity to ensure that the Warfighter has a satisfactory process to communicate and vet issues discovered during wargame and associated M&S efforts.

3.3.3 Products

- a) The MDSET (I) shall support efforts to produce and deliver the PCL Response/ACL as captured on the DAL list.

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3.4 System Assessment and Analysis Engineering (AAT)

System Assessment and Analysis Engineering team shall provide the MDSET Product Teams and MDA leadership analysis at multiple security classification levels. AAT analyses include trade studies and BMD System Specifications performance predictions of threat scenarios that incorporate countermeasures and raids. AAT analysis products are the foundation for new capability definitions, BMD System Specifications, and Test Planning and Certification. Additionally, AAT supports the MDA Quick Response Team and the Combined Engineering Team with analysts and products in support of MDA leadership tasking.

3.4.1 Function

3.4.1.1 Analysis Management

The System Assessment and Analysis Engineering Team (AAT) shall support MDA system engineering efforts and product team tasks by managing, tracking and coordinating study products with MDA and product team customers by:

- a) Performing internal reviews at key milestones through a study to ensure consistency, technical accuracy, and to ensure answers are provided to customer questions
- b) Performing a final internal review to ensure format, markings, and content before release to customer
- c) Completing a technical review with the National Team Chief Engineer's Technical Review Board for studies that are in response to MDA customers or will go to customers outside the agency
- d) Coordinating with the MDA Quick Reaction Team (QRT) on tasks for MDA leadership to ensure consistency
- e) Maintaining a Task Tracker database of all ongoing tasks/studies and ensuring AAT government lead is kept informed of tasks being performed
- f) Ensuring that DEH government lead prioritizes study tasks
- g) Assigning analysts to the QRT to aid MDSET awareness of their activities, to assist the QRT with the pace of their activities and to facilitate consistency of products
- h) Assigning analysts to CET to support MDA DE/E with analysis of key issues
- i) Supporting the SEIC by preparing and presenting informational and decision briefings that are presented to MDA System Engineering leadership before going to the ISG and PCB
- j) Evaluating and supporting DE/E Action Items



3.4.1.1.1 Analysis

3.4.1.1.1.1 Analysis for Concepts and Planning (CPT)

AAT shall provide analyses and assessments for BMDS new concepts and planning that includes:

- a) Providing performance analysis and capability assessments support for future BMDS capability development.
- b) Identifying and conduct trade studies to support development and production of CPS development.

3.4.1.1.1.2 Analysis for System Design and Requirements (SD&R)

AAT shall provide limited analyses and assessments for BMDS design and specification that includes:

- a) Providing performance analysis and capability assessments to support BMD SS development
- b) Performing trades for identification and execution of alternative options for system design trades
- c) Analyzing functional handover requirements within the BMDS design
- d) Performing raid performance analyses for inclusion in the BMD SS
- e) Analysis of functional, timing, communications, and handover requirements within the BMDS design

3.4.1.1.1.3 Analysis for Integration and Verification (IVT)

AAT shall provide limited analyses and assessments for integration and verification that includes:

- a) Providing analysis for integration and test planning
- b) Conducting performance analysis of test scenarios
- c) Providing scenario certification analyses for the test and wargame events
- d) Conducting analysis for Block or Build “Handbooks”, as appropriate

3.4.1.1.1.4 AAT LOE Tasks

AAT’s MDA analyses support shall include, but is not be limited to:

- a) Providing analysis for MDA/DE and DE/E special directed topics
- b) Developing and maintaining the Element/Component Characterization Analysis (E/CCA), a repository for technical description and performance data for all BMDS Elements and Components
- c) Providing analysis as requested by MDA in response to E-Taskers

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3.4.1.2 Maintain and Integrate Analysis Tools

AAT support shall also support analysis tool maintenance and integration as follows:

- a) Interfacing with MDA/DES for modeling and simulation support
- b) Leveraging existing Element tools for inclusion/integration into existing tools
- c) Coordinating MDSET modeling and simulation efforts with MDA/DES to ensure an integrated plan
- d) Maintaining, developing, and integrating Mission Models to ensure these simulations keep up with the analysis needs of the customer (e.g., Raid Size Capacity and other TOG metrics)

3.4.2 Products

The MDSET (I) shall produce and deliver Element/Component Characterization for Analysis (E/CCA)

3.5 Modeling and Simulation Team (M&ST)

The M&ST shall provide functional engineering resources and products consistent with and supporting the end-to-end System design for M&S. Specifically, the M&ST shall be functionally organized to implement concepts and planning, to develop Capability Packages and CPSs.

3.5.1 M&S Functions

3.5.1.1 M&S Concepts and Planning

The concepts and planning functions support developing Capability Statements and Capability Packages to translate Stakeholder Needs and capabilities, which are used in CPSs.



3.5.2 M&S Products

3.5.2.1 M&S Concepts and Planning Products

The concepts and planning function primarily supports the capture of Stakeholder Needs in the Capability Packages and M&S capabilities in the CPS documents. The function supports the development of the following artifacts.

- a) Capability Packages that capture M&S Stakeholder Needs and the corresponding Capability Statements.
- b) Initial CPS document for the individual M&S Use Case of BMDS Element Integration.
- c) Each CPS will be updated as specified after its initial CPS publication according to Attachment 3.

3.6 Program Control (PCT)

MDSET(I) Program Control provides overall guidance and support of the engineering product teams. This includes Program Director (PD), Business Management and Program Operations. PD is comprised of the Program Director, the Deputy Program Director, and the Office of Program Director. Business Management functions include Contracts and Pricing, Supplier Management, Program Planning and Control, and Scheduling. Program Operations reports to Business Management and it encompasses Facilities personnel as well as Document Production, Graphics, Data Management/Technical Data Library, and a variety of other support duties included in Program Coordination. Program Operations also involves program Security and Information Technology.

3.6.1 Program Director

MDSET (I)'s senior leadership shall provide guidance and oversight to plan, direct, manage, and oversee the activities and operations of the MDSET.

3.6.1.1 Senior Program Management

MDSET(I) senior PM consists of the MDSET(I) Program Director and the MDSET(I) Deputy Program Director. They develop program strategy and direction as well as guide and manage technical content and deliverables. They are responsible for overall management of the program including coordination of assigned activities and use of program resources. At the discretion of the MDSET(I) PD, program resources are reallocated, matrixed, or assigned to another product team in order to support both program direction as defined by MDA/DE and technical content development as defined by MDA/DE/E.

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3.6.1.2 Office of Program Director (OPD)

The MDSET (I) OPD Group is composed of senior staff-level engineering functions that address the following traditional engineering roles and provide direct support to MDSET PM and MDA leadership while providing day-to-day technical guidance to the representative MDSET product teams:

- a) Senior Chief Scientist
- b) Senior System Chief Engineer
- c) Senior Chief Integrator

3.6.2 Business Management

MDSET (I) Business Management supports the other product teams and ensures that the program is operating within established company procedures. Business Management functions include Contracts and Pricing, Supplier Management and Procurement, Program Planning and Control, and Scheduling. The MDSET (I) shall manage cost and schedule visibility by utilizing a modified earned value management system. The MDSET (I) shall deliver the cost performance report (ADRL 1.01) and the MDSET Engineering Master Schedule (EMS) (ADRL 4.1-2). The performance report provides budget versus actual cost expenditures over time by product team and tracks costs by Agreement Line Item Number (ALIN).

3.6.2.1 Contracts and Pricing

MDSET (I) Contracts and Pricing (C&P) personnel are involved in the preparation of contracts, proposals and agreements, related negotiations, pricing review and approval, contracts administration, and customer contact and interface. Additional duties include maintaining the firewall construct agreements, such as the confidential disclosure agreement, associate MDSET Industry Team agreements, and licenses and proprietary information agreements. C&P prepares/negotiates Rough Order of Magnitude and prime contract estimates and proposals. C&P manages incoming and outgoing correspondence, administers the program contract and its modifications, and issues work authorization documentation.

3.6.2.2 Supplier Management

MDSET (I) Supplier Management (SM) acts as an authorized agent of the company with responsibility for managing all supplier-related activities and the authority to commit Company resources through contracts and agreements. SM activities include the acquisition of goods and services in support of company operations and the management and improvement of supply chain management and processes. Other duties include defining performance expectations, establishing metrics, evaluating and monitoring supplier performance, meeting with suppliers and Boeing partners to ensure compliance to the contract, developing improvement plans and monitoring progress, and leading regular supplier performance reviews. SM negotiates pricing and other subcontract terms and

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conditions as well as leads the supplier proposal analysis process that selects the best value source.

3.6.2.3 Program Planning and Control

MDSET (I) Program Planning and Control (PP&C) consists of functions required to effectively manage company business operations, budget planning and financial controls, integrated scheduling, financial planning and rate management. PP&C develops, integrates, analyzes, and maintains the budget and schedule baseline for the contract Statement of Work (SOW), initiates detailed analysis in support of risk assessments and contingency or recovery plans, and makes recommendations to PM. PP&C also provides a variety of weekly and monthly reports to ensure accurate cost collection and to effectively communicate business performance to product teams and senior management. PP&C develops, integrates, analyzes, and updates cost and labor forecasts; reconciles data discrepancies; and corrects errors in cost charging for multiple budgets. Long range business planning, monitoring, and management of direct costs and overhead pools are also part of the duties assigned to PP&C.

Integrated scheduling activities are included in PP&C's duties. Integrated scheduling is provided for all phases of programs or projects from inception through completion to meet objectives. Additional duties include interfacing with customer in performing scheduling activities, scheduling forecast performance, performing risk analysis of schedules, and providing management with a complete understanding of the current schedule status. PP&C also maintains the processes for establishing, monitoring, and integrating schedule elements, including scope, execution plans and resources, and the integration of risk/risk mitigation.

3.6.3 Program Operations

MDSET (I) Program Operations is responsible for the support and coordination of day-to-day program activities. This element of the SOW includes Program Operations and Program Coordination efforts. Program Operations functions include Document Production, Graphics, Data Management/Technical Data Library, Program Coordination, Facilities, Security, and Information Technology.

3.6.3.1 Document Production and Graphics

The MDSET(I) shall align document and graphics production capabilities with those of the MDA Chief of Staff (DS) Visual Information Production Center (VIPIC) offices, leveraging existing VIPIC content management capabilities and MDA Records Management systems, as appropriate. MDSET (I) Document Production and Graphics ensure that program deliverables are of high quality, have appropriate classification markings, and are delivered on time. To ensure document quality, highly trained technical editors and document production specialists proofread documents, verify template compliance, ensure that classification markings are applied in accordance with security and handling guidelines, and maintain document configuration control. Additional responsibilities include assigning and tracking document control numbers, coordinating with technical authors, preparing paper and electronic copies of deliverables, and posting and retaining permanent copies. To assure timely delivery of products, this function works closely with Business Management to

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develop a deliverable schedule consistent with the EMS and to coordinate review and approval cycles.

In addition to formal deliveries, this group also acts as a focal point for editing of all other program products including unscheduled deliverables, data accession list items, abstracts, white papers, special projects, and briefings. Program Operations, through Document Production, is also responsible for developing and editing Program Directives. Document Production and Graphics develop and maintain common format templates to meet company and government product requirements.

3.6.3.2 Data Management/Library

The MDSET (I) shall use the MDA Information Infrastructure, in accordance with MDA Directive 8000.01, Information Management, to maintain the technical data library and manage the marking and handling of proprietary and MDNT Controlled Data. The MDA Records Management System (EMS) shall be used to manage all non-proprietary documents, which should be tagged and categorized per DoD 5015.2 Records Management requirements. In conjunction with Business Management, the library coordinates with team members, Subcontractor Company leads, and the office of the MDA CIO to ensure that need-to-know access for all proprietary and controlled documents is obtained, as required.

MDSET (I) shall continue to support the definition of MDSET data management functions and goals and a phased approach to meeting those goals. The MDSET shall, in conjunction with MDA and the MDNTB, support the data management capability to collect, store, retrieve, distribute, and mark program documents.

The MDSET (I) shall plan and perform data retrieval of relevant data from MDA and non-MDA programs in support of the total MDA mission and BMDS, and store the data in useable forms (both classified and unclassified). Products developed under this SOW shall be available in an electronic format in the MDSET controlled information management system.

3.6.3.3 Program Coordination

MDSET (I) Program Coordination performs a variety of tasks associated with general event planning and coordination activities, executing program staffing processes, and facilitating abstract and conference paper submittals.

Relative to the staffing process, Program Coordination posts, maintains, and tracks job requisitions, supports the hiring process, and conducts new employee orientations with support from other functions. In addition, Program Coordination maintains the employee database, tracks arrivals and departures, and implements the employee exit process.

3.6.3.4 Facilities

MDSET (I) Facilities effort involves the coordination of all aspects of building maintenance and operations. Facilities also act as a liaison with the property owners regarding lease commitments including leasehold improvements, construction, and building-contracted services.

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3.6.3.5 Security

MDSET (I) Program Security has the responsibility of ensuring that performance is in accordance with all applicable DoD-, Industrial-, MDA-, and program-level security policies and guidance.

Management of physical security of the premises, proper handling and tracking of classified information, and oversight of day to day security operations are included.

Security will continue to implement and manage MDSET security disciplines to protect government and company property and devise policies and procedures to safeguard automated information systems from unauthorized disclosure in accordance with DOD 5220.22-M National Industrial Security Program (NISPOM). Responsibilities also include providing instruction for safeguarding sensitive program information and accomplishment of security education and awareness training that are tailored to program needs. Security is responsible for Operations Security (OPSEC) and Communications Security (COMSEC) for all employees, including Special Access Program needs.

Additional areas of support include badging, visitor control, document control, clearance checks, material and data classification marking checks, computer security for Local Area Network/Wide Area Network (LAN/WAN) and end users, and special security requirements. MDSET shall support government-led security working group meetings to identify specific MDSET security requirements and propose security solutions for the protection of MDA data and technologies.

MDSET (I) shall participate in protection assessments and ensure that program protection considerations and actions are implemented properly.

3.6.3.6 Information Technology

Information Technology (IT) is responsible for developing, maintaining, and managing the systems and tools that allow program team members to effectively execute the SOW. The MDSET (I) shall provide common IT infrastructure for both itself and the MDNTB. The information system will be designed and implemented in a manner that enables the free flow of information while providing appropriate protection of proprietary and competition-sensitive information from exposure outside the program.

Specific support includes collaborative systems Team Integrated Network System/Classified Team Integrated Network System (TINS/CTINS) for program management and support, program visibility and metrics, information management; and Virtual Private Network (VPN) connectivity providing remote access to company networks for the primary five teammates, business management, requirements management, data management, engineering, analysis, document delivery, video teleconferencing, voice services, email, printing, and data storage. The IT infrastructure shall include multiple classified and unclassified networks that connect primary MDSET sites and remote enclaves. The infrastructure shall include servers, data storage devices, and desktop/laptop computers loaded with a standard suite of productivity and connectivity tools to support management, engineering, and analysis functions. This function also maintains



control and accountability of Government Furnished Equipment in accordance with government-approved property management systems.

Specific common infrastructure between the MDSET and MDNTB includes VPN connectivity and support to mdnt.com from external networks, Active Directory infrastructure and support for mdnt.com for MDSET and the five primary C2BMC sites, Microsoft Exchange server support and maintenance for mdnt.com, mail relay server support for mdnt.com (includes spam and virus filtering), BlackBerry server support and maintenance for mdnt.com, and firewall support and maintenance for mdnt.com. Changes will be managed via an IT configuration change board.

The MDSET (I) shall provide full Information Systems Security Officer (ISSO) support to ensure compliance with Defense Security Service (DSS) accreditation. The ISSO establishes security plans and works as a liaison with IT, Security, DSS, and MDA Information Assurance (DOCV) office to ensure compliance.

3.6.3.7 PCT Products

The MDSET (I) shall produce and deliver the following:

- a) MDSET Industry EMS
- b) Monthly Contract Performance Reports
- c) Site List for the Transfer of Classified Information



