

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**AIR FORCE MANUAL 63-144**

**31 MARCH 2016**



**Acquisition**

**DEFENSE BUSINESS SYSTEM LIFE  
CYCLE MANAGEMENT**

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OPR: SAF/AQXS

Certified by: SAF/AQX  
(Mr. Miller)

Pages: 48

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This publication complements Air Force Policy Directive (AFPD) 63-1/20-1, Integrated Life Cycle Management and Air Force Instruction (AFI) 63-101/20-101 Integrated Life Cycle Management. This Air Force Manual (AFMAN) provides guidance for Air Force (AF) organizations acquiring Defense Business Systems (DBS) procured under Department of Defense Directive (DoDD) 5000.01, The Defense Acquisition System and DoD Instruction (DoDI) 5000.02, Operation of the Defense Acquisition System (collectively called the DoD 5000 acquisition series). This AFMAN shall be used in conjunction with the DBS requirements process documented in AFMAN 33-402, Service Development and Delivery Process (SDDP). Additional non-mandatory guidance on best practices, lessons learned, and expectations is available in the Defense Acquisition Guidebook.

If there is any conflicting guidance between this publication and DoD 5000-series, CJCSI 3170.01, JCIDS Manual, or other AF Directive Publications, higher level guidance shall take precedence. To ensure standardization, any organization supplementing this publication must send the implementing publication to SAF/AQX for review and coordination before publishing. This publication applies to all military and civilian AF personnel, including Air Force Reserve Command (AFRC) units and the Air National Guard, and other individuals or organizations as required by binding agreement or obligation with the Department of the Air Force (DAF).

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In accordance with the acquisition chain of authority specified in AFI 63-101/20-101, mandates to the acquisition execution chain are not considered Wing level mandates and tiering does not apply.

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## Chapter 1

### DEFENSE BUSINESS SYSTEM (DBS) LIFE CYCLE MANAGEMENT

**1.1. Purpose.** This publication establishes tailored processes for the system planning, design, acquisition, deployment, operations, maintenance, and modernization of DBS, as defined in DoDI 5000.02, and assigns tailored responsibilities and procedures for meeting DoDI 5000.02 and AFI 63-101/20-101 requirements. This manual is focused on guidance for the acquisition and sustainment of DBS resulting from the documentation of requirements defined IAW AFMAN 33-402 and can be used as a guideline and for tailoring IAW statute and sound business practice.

**1.2. Applicability.** This manual applies to the acquisition management of DBS from the Materiel Development Decision (MDD) to Disposal. All members of the acquisition and sustainment community should use this guidance in partnership with higher level guidance cited, other Air Force Directive Guidance, and the Defense Acquisition Guidebook (DAG). All DBS programs are Acquisition Category (ACAT) programs and this manual is applicable throughout the program life cycle including the Operations and Support Phase to Disposal. All DBS programs under Major Automated Information System (MAIS) thresholds shall be managed under the appropriate Air Force Program Executive Officer (PEO). The PEO shall act as Milestone Decision Authority (MDA) unless otherwise directed. The Functional Sponsor shall use the PEO Portfolio Assignment Process for assignment to the appropriate PEO.

1.2.1. This manual is applicable to DBS under the Air Force Service Acquisition Executive (SAE) oversight (ACAT IAC / ACAT III) and AF PEO control. DBS meeting the MAIS threshold or designated special interest or subject to Office of the Secretary of Defense (OSD) oversight shall meet the requirements of DoDI 5000.02 and may not implement the tailored procedures specified within this AFMAN without the consent of the OSD Milestone Decision Authority (MDA), but may use this AFMAN for guidance.

1.2.2. Regardless of ACAT, where there is a clear conflict between approved courses of action and where policy/guidance does not allow for tailoring of acquisition processes, the programmatic chain of authority shall request waivers from the appropriate office.

**1.3. Background.** This AFMAN and the tailored processes within were written to help deliver capability quickly; it recognizes that Information Technology (IT) requires frequent upgrades, requirements may need to be reprioritized, and new opportunities may emerge. The goal of this AFMAN is to enable the acquisition and deployment of viable DBS capabilities to match the speed at which they are needed by the user. This AFMAN streamlines standard processes, decision milestones, and information requirements to achieve quicker, more responsive programs to deliver capability quickly and efficiently. The following key tenets contribute to achieving this goal:

1.3.1. Early and continuing user and PEO/Program Manager (PM) involvement. The Functional Sponsor, on behalf of the user, needs to ensure that the PM or Development Planning (DP) for the PEO is involved in the early upfront technical and lifecycle requirements definition to ensure clearly defined functional requirements are passed onto the developers of the materiel solution. Additionally, the PM needs to ensure Functional Sponsor continuing involvement to facilitate design tradeoffs and to better align end user

follow-on requirements and impacts across the Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, and Policy (DOTMLPF-P) spectrum. These tradeoffs may include training plans, operational procedures, personnel skills, information security, and facility maintenance. Engagement during the design and build process can allow for greater efficiency, with some level of requirements sequencing, tradeoffs, or Commercial-Off-The-Shelf (COTS) presented design decisions to deliver, operate, and sustain the capability.

1.3.2. Rapidly deliver capability incrementally. The PM needs to consider approaches which deliver increased capability over time, recognizing up-front the users' need for future capability improvements. To ensure this approach is viable, the PM will work with the Functional Sponsor to define capability improvements that can deliver useful and supportable operational capabilities that can be developed, tested, produced, deployed, and sustained. The PM should consider the agile framework to provide almost continuous feedback to help refine the deployment of the capability. To the extent practical, incremental transformation plans and incremental DBS capability delivery requirements should be identified in the Sponsor's Implementation Plans and Bounded User Requirements.

1.3.3. Tailor acquisition to meet user requirements based on risk. The objective is to bring the right information and people to the point of decision-making while reducing non-value added work. This tenet is based on the need for decisions to be focused on delivering capabilities with the most efficient cost and schedule given the risks. Decisions should not be based on non-value added or standard documentation, if that is counter to the appropriate level of risk for the capability. This is supported by utilizing portfolio approaches (documented in Chapter 3) and identifying the appropriate documentation vice relying on a standard checklist. The PM should leverage information developed as part of the requirements process.

1.3.4. Be outcome oriented. The Functional Sponsor identifies outcomes that improve effectiveness (e.g., help improve the quality of the user's performance) and/or efficiency (e.g., enable the user to perform more quickly or accomplish the same performance with fewer resources) as compared to the user's current level of performance. Improved performance, both in terms of effectiveness and efficiency, is captured through high-level performance measures. If a materiel solution is necessary, performance measures related to the materiel solution should be quantitative and testable, support the definition of specific performance requirements for the materiel solution, and inform the test and evaluation planning and assessment of the capability. The PM should expect and require clear performance measures from the Functional Sponsor that can be linked to the acquisition requirements that must be satisfied. Understanding what the target goal is and measuring capability performance against the target goal provides verification the capability is functioning as expected and the end user's problem is solved or needs are met.

#### **1.4. Key DBS Tailoring Concepts.**

1.4.1. Agility in Acquisition. Tailoring, Delegation of Decision Authority, and the Portfolio Approach help support Agility in Acquisition by setting up constructs to allow PEOs and PMs to effectively field capabilities in shorter timeframes. With reduced documentation and portfolio level processes defined in this AFMAN, programs can limit the amount of approvals needed to deploy and gain approval.

1.4.2. Tailoring. Tailoring provides the ability to integrate, consolidate, incorporate, and streamline strategies, oversight, reviews, decision levels, documentation, and information. The purpose is to streamline the acquisition program to the maximum extent possible, consistent with risk, in order to deliver a capability most efficiently and effectively. MDAs will promote maximum flexibility in tailoring programs under their oversight to fit particular conditions of that program, consistent with applicable laws and regulations and the time sensitivity of the capability need. MDAs and PMs will tailor within the scope of the applicable statute or regulation and eliminate non-value added tasks whenever possible. MDAs shall not waive requirements when the waiver authority resides outside MDA authority. Waiver authority, other than those explicitly defined, belongs to the publication or requirement owner. A waiver is an expressed or written statement to relinquish or provide exceptions to specific statutory or regulatory requirement.

1.4.3. Delegate Decision Authority. Decision authority should be delegated when appropriate and when properly documented. The MDA should assign responsibilities to the lowest appropriate and permissible statutory and regulatory level. This approach strengthens accountability, reduces bureaucracy, and accelerates positive outcomes. This AFMAN allows the MDA to delegate multiple decision points and documentation approvals to strengthen this approach.

1.4.4. Portfolio Approach. Portfolio management processes should be used, where available, from the AF Chief Information Officer (CIO), the PEO, and the Functional Sponsor.

1.4.4.1. The CIO process for Portfolio Management (PfM) leverages industry best practices to implement a capability based mission/business process and a scenario driven approach to align IT applications to securely meet Mission Area needs. The process will provide application/infrastructure investment alignment to develop and maintain an integrated risk-controlled portfolio of programs and initiatives for the effective and efficient delivery of materiel solutions in support of mission capability. PfM will leverage a Capital Planning and Investment Control (CPIC) process that links to and supports budget formulation and execution.

1.4.4.2. The PEO should focus on a portfolio approach in respect to process development and shared risk among the programs within the portfolio by proactively applying lessons learned and benefitting from work conducted on one program informing the development of the next program. The PEO should standardize process application among the programs and provide shared resources (tools, techniques, manpower) to apply against multiple programs. This portfolio approach also reduces documentation workload by completing some requirements at the portfolio level one time vice multiple times for each individual program.

1.4.4.3. The Functional Sponsor supported by the PEO should review their requirements to match to the acquisition efforts already in place by accelerating, delaying, or reallocating known requirements as acquisition opportunities present themselves.

## Chapter 2

### ROLES AND RESPONSIBILITIES

**2.1. Purpose.** This chapter defines the roles and responsibilities for positions responsible for integrated life cycle management of Air Force Defense Business Systems. This chapter is not meant to be all inclusive; additional complementary functional and organizational roles and the details to execute the roles and responsibilities may be found throughout this document, in AFPD 63-1/20-1, AFI 63-101/20-101, AFI 99-103, Capabilities Based Test and Evaluation, AFI 14-111, Intelligence Support to the Acquisition Life-Cycle, AFI 10-601, Operational Capability Requirements Development, AFI 63-138, Acquisition of Services, AFMAN 33-402, applicable 33-series documents, and other publications referenced in Attachment 1. Responsibilities of headquarters staff are located in Mission Directives (MD). The responsibilities of Assistant Secretary of the Air Force (Acquisition) (SAF/AQ) staff are included in MD 1-10, Assistant Secretary of the Air Force (Acquisition).

#### **2.2. Service Acquisition Executive (SAE):**

2.2.1. Executes SAE responsibilities outlined in DoD guidance for execution of AF acquisitions. The SAE is responsible for the integrated life cycle management of systems and services programs from entry into the defense acquisition management system to system retirement and disposal. This includes research, development, test, evaluation, production, and delivery of new systems, or modifications and support of existing systems.

2.2.2. Establishes service specific acquisition program direction, policies, and procedures for the acquisition of DBS.

2.2.3. Designates the MDA for DBS that do not meet the MAIS threshold or are not otherwise designated. USD (AT&L) is the MDA for ACAT IAM programs. For these programs, management responsibility flows directly, without intervention, from the MDA to the SAE to the PEO to the PM. For all other programs, management responsibility flows directly, without intervention, from the MDA to the PEO to the PM.

#### **2.3. Milestone Decision Authority (MDA):**

2.3.1. Is responsible for approving DBS acquisition decisions unless delegated.

2.3.2. Complies with all portfolio processes as defined by the PEO (only for AF managed programs).

2.3.3. Approves tailoring of regulatory information requirements and acquisition processes and procedures to achieve cost, schedule, and performance requirements and goals.

#### **2.4. Program Executive Officer (PEO):**

2.4.1. Is responsible for total life cycle management of the assigned portfolio including assigned programs and ensures collaboration across other PEOs portfolio and the Integrated Life Cycle Management (ILCM) framework as defined by AFPD 63-1/20-1. The PEO is responsible for, and has authorities to accomplish portfolio/program objectives for development, production, sustainment, and disposal to meet warfighters' operational needs in a cost effective manner.

2.4.2. Establishes mandatory processes for assigned programs. The PEO determines the approach to complete portfolio level documentation, including groupings of portfolio documentation if determined that multiple process level documentation is more efficient than shared processes across the portfolio.

2.4.3. Supports Sponsor/Mission Owner/Lead Command requirements definition work prior to the Materiel Development Decision (MDD), the integration of functional sponsor participation throughout the acquisition lifecycle, and ensures acquisition execution is aligned with requirement decisions and changes.

## **2.5. Program Manager (PM):**

2.5.1. Is accountable for assigned programs through the acquisition execution chain on matters of program cost, schedule, performance, cybersecurity, and risk.

2.5.2. Is responsible for program execution, delivery, and sustainment of systems to meet validated and funded user requirements while seeking to minimize costs and improve efficiency and effectiveness throughout the life cycle.

2.5.3. Ensures assigned programs comply with all applicable statutes, executive orders, DoD issuances, AF publications, Federal Acquisition Regulation (FAR), Defense Federal Acquisition Regulation Supplement (DFARS), Air Force Federal Acquisition Regulation Supplement (AFFARS), and the requirements in this publication.

2.5.4. Develops appropriate programmatic documentation as required by this and other applicable instructions. Ensures the programmatic documentation is coordinated with all applicable stakeholders. Maintains programmatic documentation throughout the life cycle of the system in accordance with this and other instructions.

2.5.5. Develops tailored program strategies and oversight, including documentation of program information, acquisition phases, the timing and scope of decision review, and decisions levels, to fit the particular conditions of that program. The program strategy will be developed as appropriate for the program risk, for approval by the MDA.

2.5.6. Supports technical requirements development/definition and ensures compliance with the technical, operational, and interface baselines as defined in AFPD 33-4.

2.5.7. Complies with all portfolio processes as defined by the PEO.

## **2.6. Development Planning Organization:**

2.6.1. Provide PM acquisition support responsibilities until a Program Office is established.

2.6.2. Provide Market Research support to Functional Sponsor.

2.6.3. Provide engineering analysis and technical planning support to inform Functional Sponsor Course of Action/AoA analysis.

2.6.4. Comply with all portfolio processes as defined by the PEO.

## **2.7. Investment Review Board (IRB):**

2.7.1. Reviews Problem Statements (IRB Chair will approve the Problem Statement).

2.7.2. Advises the MDA for Milestone (MS) Decisions.

2.7.3. Certifies investment certification requests and recommends approval to the Defense Business Council (DBC).

## **2.8. Enterprise Senior Working Group (ESWG):**

2.8.1. Provides entryway to begin DBS capabilities requirements development.

2.8.2. Supports investment certification requests for DBS.

2.8.3. Provides AF review of activities required for IRB approval.

## **2.9. Functional Sponsor (Defined in DoDI 5000. 02):**

2.9.1. Is responsible for ensuring requirements development is accomplished IAW AFMAN 33-402.

2.9.1.1. Leads the work performed in developing and gaining approval for the Problem Statement.

2.9.1.2. Utilizes AFMAN 33-402 analysis to support the PM in developing the Acquisition Strategy post MDD.

2.9.1.3. Ensures that acquisition is involved in the early upfront technical and lifecycle requirements definition to ensure clearly defined functional requirements are passed onto the developers of the materiel solution. The Functional Sponsor initiates a PEO Portfolio Assignment IAW AFI 63-101/20-101 request prior to MDD if a materiel solution is identified as required to meet the user requirement.

2.9.2. Is responsible for ensuring all necessary funding is identified and obtained in accordance with applicable funding regulations (e.g., DoD FMR) and IAW AFI 65-601, Budget Guidance and Procedures.

2.9.3. Supports the development of the materiel solution by ensuring all Doctrine, Organization, Training, Leadership and Education, Personnel, Facilities, and Policy (DOT\_LPF-P) and cybersecurity elements that are required to operate and sustain the materiel solution are ready from delivery of the solution throughout its lifecycle.

2.9.4. Advocates and ensures certification for DBS funding is in compliance with statute and regulatory policy.

2.9.5. For the purposes of the Air Force, the appropriate AF 2-Letter Director (GO/SES level) or the organization (GO/SES level) who has the authority to change the DOTMLPF-P capability set serves as the Functional Sponsor.

## **2.10. Deputy Chief Management Office (SAF/MG):**

2.10.1. As the Air Force Deputy Chief Management Officer (DCMO), supports Functional Sponsor requirements definition work IAW AFMAN 33-402.

2.10.2. Facilitates the review and certification of AFMAN 33-402 artifacts by the appropriate governance authority within the AF Corporate Structure.

2.10.3. AF DCMO, designated as the Pre-Certification Authority (PCA) on AF Priority DBS and the Certification Authority (CA) on Covered DBS, will assert compliance with DoD Business Enterprise Architecture (BEA) and the guidelines for Business Process Reengineering (BPR).

**2.11. Chief, Information Dominance and Chief Information Officer (SAF/CIO A6):**

2.11.1. Responsible for developing and defining enterprise level architecture, cybersecurity, interoperability, and IT infrastructure requirements.

2.11.2. Ensures compliance on Clinger-Cohen Act (CCA), NDAA, Risk Management Framework (RMF), Federal Information Security Management Act (FISMA), Privacy, Section 508, and Records Management.

2.11.3. Responsible for development and reporting of the Air Force Information Technology Budget.

2.11.4. Monitors and evaluates the performance of information technology investments through a CPIC process, and advise on whether to continue, modify, or terminate a program or project in compliance with statute and regulatory policy.

## Chapter 3

### DBS UNIQUE PROCESSES AND TAILORING

**3.1. Organizational Execution Plan (OEP).** The PM supports the Functional Portfolio Manager to follow the process as defined per applicable OSD DBC DBS Investment Management guidance and AF DCMO DBS Investment Management guidance to achieve certification on Priority and Covered DBS.

3.1.1. The requirements satisfied by the OEP are codified in 10 USC §2222. The Functional Portfolio Manager may be required to address new requirements arising from the Office of the Secretary of Defense, Deputy Chief Management Officer (OSD DCMO) or the Air Force DCMO.

3.1.2. General OEP Guidance. Along with the Service OEPs, the Air Force DCMO, as the PCA on Air Force Priority DBS and Certification Authority on Air Force Covered DBS, will provide a single memorandum asserting compliance with Business Enterprise Architecture (BEA) and compliance with the guidelines for Business Process Reengineering (BPR). The OEP certification requests must comply with laws, regulations, and policy, such as the Clinger-Cohen Act. The PCA submits the Portfolio Certification Request (PCR) to the OSD DCMO to formally assert the need for all systems requiring certification.

### 3.2. Required DBS Processes.

3.2.1. Service Development and Delivery Process (SDDP). SDDP, documented in AFMAN 33-402, ensures the Functional Sponsor considers all possible Doctrine, Organization, Training, Material, Leadership and Education, Personnel, Facilities, and Policy (DOTMLPF-P) solutions to the end user's need/problem, enables successful implementation of IT investments and ensures IT capabilities are not acquired unnecessarily. The end user problems are driven by a need to improve the effectiveness and efficiency in the execution of AF mission processes. These processes include the business processes associated with logistics, personnel, finance, acquisition and business operations. AFMAN 33-402 is required prior to a DBS undergoing a development or modernization effort that adds capabilities that are outside the scope of the current problem statement. AFMAN 33-402 is required whenever the following conditions apply:

3.2.1.1. Development of a new mission capability;

3.2.1.2. Modernization of an existing capability that adds or modifies the functional capability of the existing system;

3.2.1.3. Organizational restructuring or alignment resulting in process re-engineering that affects the supporting systems; or

3.2.1.4. When an existing capability is extended to a new user base.

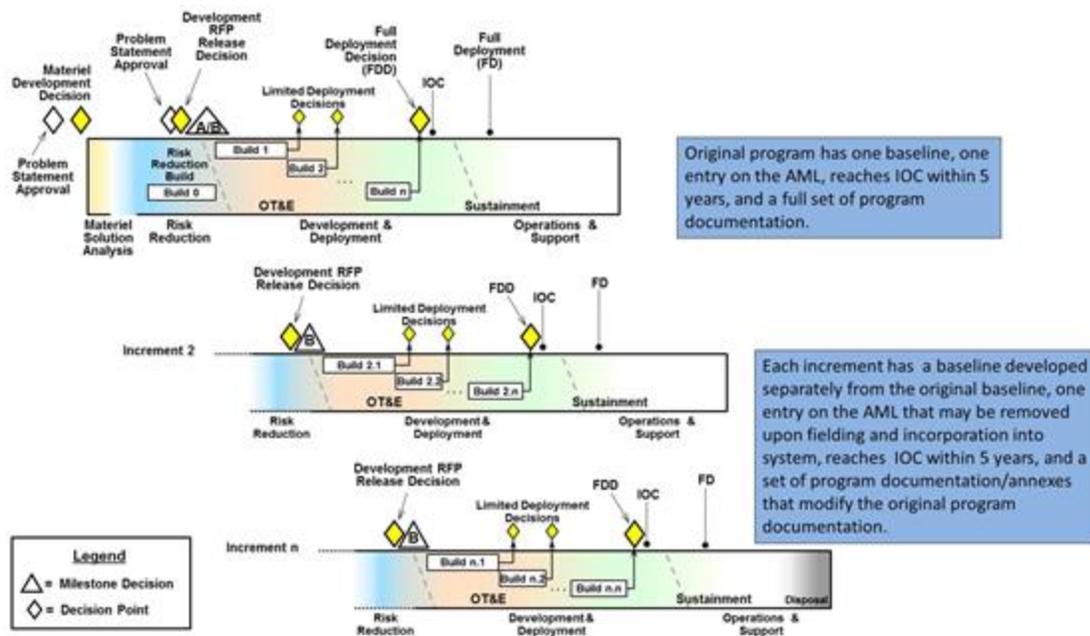
3.2.2. Clinger-Cohen Act (CCA) Compliance. DBS programs are required to comply with CCA as documented in AFMAN 33-407, Air Force Clinger-Cohen Act (CCA) Compliance Guide. Prior to every milestone decision starting with MS A and contract award, the PM shall ensure that the required documentation is available to ensure CCA compliance. All

DBS programs are required to submit a completed CCA compliance table and supporting documentation to the AF CIO IAW AFMAN 33-407.

3.2.3. Business Process Reengineering (BPR). BPR is required for all DBS systems and is done IAW processes laid out in AFMAN 33-402. BPR is a comprehensive process requiring a change in the fundamental way business processes are performed. Business Process Reengineering/Process Reengineering identifies unnecessary activities, eliminates them, and wherever possible, automates manual procedures. This may include eliminating non-value added process steps, consolidating separate functional tasks into end-to-end cross-functional processes, and integrating business functions as much as possible to improve business operations and to achieve the desired outcome(s). To the greatest extent possible, PMs and acquisition teams should acquire those materiel solutions that enable the functional's re-engineered processes, but processes may also need to be revised based on the features presented by the materiel solution to ensure that customization of the materiel solution is limited as much as possible. The business processes inherent in the materiel solution should be adopted, not adapted, by the organization implementing the product. This means the organization changes its processes to accommodate the materiel solution not vice versa. PMs and Functional Sponsors should work together to update any BPR documentation when presented with opportunities to take advantage of materiel solution features that may diverge from the requirements developed before a solution was acquired.

**3.3. Defense Business System Tailored Framework.** This framework (Figure 3.1) is the Air Force tailored DoDI 5000.02 model suggested for use by DBS programs. The model takes advantage of work conducted during the requirements process to streamline the early stages and focuses on utilizing a common infrastructure and standards to simplify sustainment of DBS. This model combines the MS A and B decision point based upon the work conducted in partnership with the Functional Sponsor during the requirements process. MS A may be added back in to limit risk at the discretion of the MDA. **Note:** DoDI 5000.02 defines the requirements and timing for reaching IOC within 5 years and the determination of what constitutes IOC. "This model is distinguished from the previous model by the rapid delivery of capability through multiple acquisition increments, each of which provides part of the overall required program capability. Each increment may have several limited deployments; each deployment will result from a specific build and provide the user with a mature and tested sub-element of the overall incremental capability. Several builds and deployments will typically be necessary to satisfy approved requirements for an increment of capability. The identification and development of technical solutions necessary for follow-on capability increments have some degree of concurrency, allowing subsequent increments to be initiated and executed more rapidly." (DoDI 5000.02, 7 January 2015)

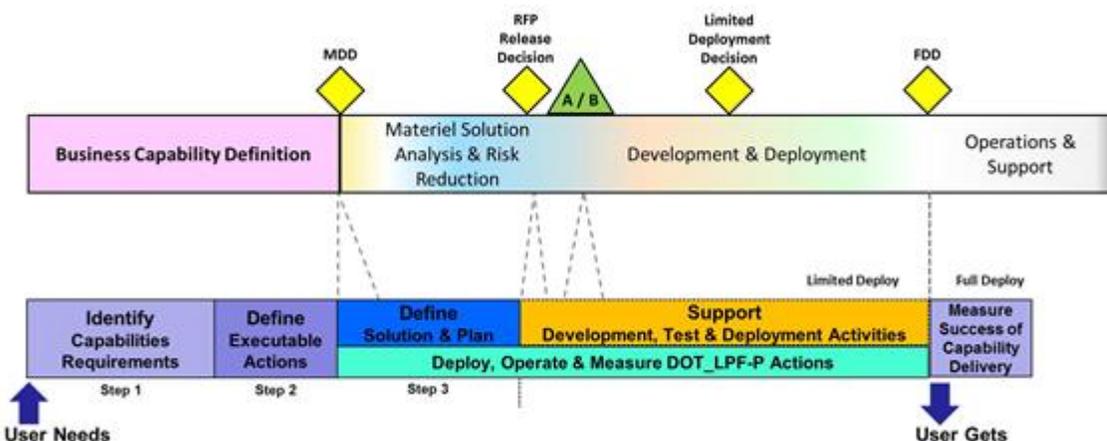
Figure 3.1. Tailored DBS Life Cycle Management Model.



**3.4. AFMAN 33-402 and DBS Acquisition AFMAN relationship.** The first three steps of AFMAN 33-402 relate to the acquisition process defined in this DBS Acquisition AFMAN similar to the way that JCIDS relates to the acquisition process defined in DoDI 5000.02. AFMAN 33-402 starts the process for the development of new capabilities by defining the Functional Sponsor defined business level requirements in a Problem Statement and then works in conjunction with the acquisition process to refine the requirements for a materiel solution. The Functional Sponsor and the PM then continue to work together refining the requirement which results in an updated Problem Statement and Bounded User Requirement (BUR) which supports development of the System Requirements Document (SRD) as part of the hand-off to the acquisition process defined in this AFMAN. Activities in AFMAN 33-402 after Step 3 support the development of the materiel solution by ensuring DOT\_LPF-P elements required to operate and sustain the materiel solution are available at time of deployment to support the solution throughout its lifecycle. **Note:** Complete SRD IAW AFI 63-101/20-101

3.4.1. AFMAN 33-402 and DBS Acquisition AFMAN alignment. AFMAN 33-402 and the DBS Acquisition AFMAN steps align per Figure 3.2. Basic alignment tenets can be described as follows: (1) MDD is aligned with the beginning of Step 3 of AFMAN 33-402 but must occur prior to COA Evaluation; (2) Development RFP occurs after Step 3 of AFMAN 33-402, after delivery of the Bounded User Requirements (BUR) and after the updated Problem Statement is approved; and (3) After delivery of the BUR, the updated Problem Statement, and completion of the SRD, AFMAN 33-402 is focused on DOT\_LPF-P planning and execution not the development of the Materiel Solution.

Figure 3.2. AFMAN 63-144 and AFMAN 33-402 Alignment.



**3.5. Portfolio and Program Approach.** DBS should be delivered using a portfolio approach. The portfolio approach enables some of the common acquisition processes and documents to be built and maintained at the portfolio level and applied to multiple programs. A program can implement all aspects of the portfolio approach or create annexes/alterations appropriate for that program. The PEO will determine and document the portfolio processes (can be one portfolio process per PEO or can be split into multiple processes for different programs to implement), allowing programs to document only the differences between the approved portfolio processes and implementation requirements at the program level. The PEO will utilize shared resources including tools, techniques, and manpower to reduce cost and ensure standard application. Example: The PEO-level portfolio risk management plan will identify the processes used to determine program risks and mitigation strategies. The program specific information shall be documented per PEO direction and will identify the program specific risks and mitigation but will not have to define a separate process. The portfolio risk management plan would relieve a program of developing a stand-alone risk management plan.

3.5.1. Portfolio Documents. Portfolio documents, when implemented, will be prepared and approved at the PEO level. The documents will be focused on acquisition process documentation that describes shared processes to be used by all or some of the programs in a PEO portfolio. Portions of the documents that require specific program information will be documented per PEO direction for the program. The specific program information will be provided for MDA approval when required. Programs will identify the specific Portfolio Documents being used. PEOs may have multiple sets of portfolio level documents. Table 3.1 identifies candidate portfolio documents.

Table 3.1. Portfolio Documents.

PORTFOLIO DOCUMENTS			
Process Information should be contained in the Portfolio Level Document – Unique Program Information shall be documented per PEO direction			
Document	Approval Levels		Notes
	ACAT IAC	ACAT III	
Intellectual Property	PEO	PEO	Unique Program Information shall

Strategy			be documented per PEO direction and included for MDA decisions when required.
Item Unique Identification Implementation Plan (IUID)	PEO	PEO	Unique Program Information shall be documented per PEO direction and included for MDA decisions when required.
Life Cycle Sustainment Plan (LCSP)	MDA	PEO	Unique Program Information shall be documented per PEO direction and included for MDA decisions when required.
Program Protection Plan (PPP)	PEO	PEO	Unique Program Information shall be documented per PEO direction and included for MDA decisions when required. (Critical Program Information, Criticality Analysis). The Cybersecurity Strategy is required for each program.
Systems Engineering Plan (SEP)	PEO	PEO	Unique Program Information shall be documented per PEO direction and included for MDA decisions when required.
System Threat Assessment Report (STAR)	DIA	AF/A2	Use the Cyber Capstone Threat Assessment. Acquisition Intelligence products and services can be provided through the supporting Senior Intelligence Officer
Test and Evaluation Master Plan (TEMP)	PEO	PEO	Unique Program Information shall be documented per PEO direction and included for MDA decisions when required. DBS programs on the OSD oversight list or USD(AT&L) designated special interest programs require a standalone TEMP approved by DOT&E and/or DASD(DT&E).
Risk Management Plan	PEO	PEO	Unique Program Information shall be documented per PEO direction and included for MDA decisions when required.

3.5.2. Program Documents. Program documents are prepared at the program level and approved as identified in Table 3.2. Program documents are required for each program even if a Portfolio document strategy is being implemented; however, appropriate tailoring should be considered including combining documents, streamlining information requirements, and waiving documents with approval of the designated waiver authority. All tailoring and

waiving considerations should be documented in the Acquisition Strategy. For follow-on modifications and increments, programs should update the original program documentation versus completing new documentation. Table 3.2 identifies program documents.

**Table 3.2. Program Documents.**

<b>PROGRAM DOCUMENTS</b>			
<b>Document</b>	<b>Approval Levels</b>		<b>Notes</b>
	<b>ACAT IAC</b>	<b>ACAT III</b>	
Acquisition Decision Memorandum - Including Exit Criteria	MDA	MDA	Refer to AFI 63-101/20-101 and DoDI 5000.02 for more information
Acquisition Program Baseline	MDA	MDA	Tailored APB format is in SMART. Refer to AFI 63-101/20-101 and DoDI 5000.02 for more information
Affordability Analysis	MDA	MDA	Guidance is contained in DoDI 5000.02, Encl. 8 for the establishment of the affordability target. Guidance is contained in AFI 63-101/20-101 for the completion of the affordability analysis for ACAT III programs
Analysis of Alternatives (AoA) Study Guidance and Plans	DCAPE or AFCAA	MDA	Guidance is contained in DoDI 5000.02 for completion of AoAs.
AoA	DCAPE or AFCAA and MDA	MDA	Guidance is contained in DoDI 5000.02 for completion of AoAs.
Acquisition Strategy -Unique LCSP, TEMP,PPP, SEP requirements -Implementation of Intellectual Property Strategy (IPS) IUID -Business Process Re-Engineering -Market Research -Should Cost Target -Consideration of Technology Issues -Cooperative Opportunities (if applicable) -Industrial Base	MDA	MDA	DBS programs will document program specific implementation from portfolio level documents in summaries section of Acquisition Strategy. For example, document how the program implementation differs from the Portfolio SEP processes or specific information concerning the implementation of the SEP requirements (ie, reviews, schedules). BPR is conducted IAW with AFMAN 33-402. The Acquisition Strategy should point to AFMAN 33-402 artifacts to meet this requirement Refer to AFI 63-101/20-101 and

Capabilities			DoDI 5000.02 for more information
Clinger-Cohen Act	AF CIO	AF CIO	Provide table to AF CIO consistent with instructions in AFMAN 33-407.
Component Cost Estimate & Component Cost Position	SAF/FM		Refer to DoDI 5000.02 for more information
Cost Analysis Requirements Description	MDA/PEO		Procedures are in AFI 65-508
Cybersecurity Strategy	DoD & AF CIO	AF CIO	Programs should document security levels of the program. Refer to DoDI 5000.02, DoDI 8500.01, and AFI 33-210 for more information
Economic Analysis	AFCAIG Chair	SAF/FMC	Procedures and Applicability are in AFI 65-501 and AFMAN 65-506. SAF/FMC has developed a tailored Economic Analysis to assist smaller DBS programs
Full Funding Certification Memo	DCAPE and MDA		Refer to DoDI 5000.02 for more information
Independent Cost Estimate	DCAPE or AFCAA and MDA		Requirement specified in DoDI 5000.02
Information Support Plan	AF CIO	AF CIO	Joint programs are approved by AF CIO in coordination with the DoD CIO
Interoperability Test Certification	JITC – CIO	JITC – CIO	Refer to DoDI 5000.02 for more information
Operational Test Plan	OTA or OTO	OTA or OTO	Operational Test Agency (OTA) or Operational Test Organization (OTO) Refer to DoDI 5000.02 and AFI 99-103 for more information
Post Implementation Review	Functional Sponsor – CIO	Functional Sponsor – CIO	Refer to AFI 63-101 and AFMAN 33-407
Problem Statement	IRB Chair	IRB Chair	This is the requirements document for DBS. At MDD, the Problem Statement includes the PRM and may be informed by other AFMAN 33-402 artifacts even if not approved At Development RFP, the Problem Statement includes the PRM, BRM,

			and DOTMLPF-P Implementation Plan. The BUR is certified by the AF DCMO Ensure inclusion of Return on Investment (ROI) for the DBS While a CDD is not required, DBS need a Systems Requirements Document (SRD) prior to Development RFP The Problem Statement and the BUR are the business level requirement documents that will be used in lieu of the JCIDS documents for all program activities to include testing Refer to DoDI 5000.02 and AFMAN 33-402 for more information
Program Certification to the DBC	DBC Chair	DBC Chair	Required prior to obligating funds - applicable if over \$1M over the FYDP Refer to DoDI 5000.02 and AFMAN 33-402 for more information
System Security Plan	AO	AO	Required by DoDI 8510.01

3.5.3. As Needed Documentation. These documents are normally not required for DBS programs, but should be assessed and the justification provided to the MDA for concurrence as part of the Acquisition Strategy. Table 3.3 identifies as needed documents.

**Table 3.3. As Needed Documents.**

<b>AS NEEDED DOCUMENTS</b>			
<b>Document</b>	<b>Approval Levels</b>		<b>Notes</b>
	<b>ACAT IAC</b>	<b>ACAT III</b>	
Bandwidth Requirements Review	CIO	CIO	
Benefit Analysis and Determination	MDA	MDA	If needed, summarize in Acquisition Strategy - Required for bundled acquisitions to demonstrate it is necessary and justified
Cooperative Opportunities	MDA	MDA	If needed, summarize in Acquisition Strategy
Corrosion Prevention and Control Plan	PEO		If needed, summarize in Acquisition Strategy, or identify differences with Portfolio SEP
DOT&E Report on initial IOT&E	DOT&E	DOT&E	Only required for programs on OT&E oversight list
Frequency Allocation	NTIA	NTIA	National Telecommunications and

Application (DD FORM 1494)			Information Administration (NTIA)
General Equipment Valuation	MDA	MDA	
Independent Risk Assessment	MDA	MDA	
Initial Threat Environment Assessment	DIA		Done in support of MDD. Defense Intelligence Agency (DIA) – Optional for ACAT III but not required – most DBS should refer to the Cyber Capstone Threat Assessment
Life Cycle Mission Data Plan	PEO	MDA	Only if program uses Intelligence Mission Data
PESHE and NEPA Compliance Schedule	PEO	PEO	Not required for software programs with no hardware component - Document as part of SEP section in Acquisition Strategy if the software can contribute to an Environment, Safety, or Occupation Health (ESOH) risk or risks whether there is a hardware component or not
RFP Decision Brief	PEO	PEO	Per PEO
Small Business Innovation Research/Small Business Technology Transfer	MDA	MDA	Only for contracts over \$100M
Spectrum Supportability Risk Assessment	CIO	CIO	Refer to DoDI 5000.02 for more information
Technology Targeting Risk Assessment	DIA	AF/A2	
Waveform Assessment Application	CIO	CIO	

3.5.4. Not Required for DBS Programs. Table 3.4 identifies documents not required nor needed to be documented in a program ADM.

**Table 3.4. Documents not required.**

<b>DOCUMENTS NOT REQUIRED FOR DBS</b>			
<b>Document</b>	<b>Approval Levels</b>		<b>Notes</b>
	<b>ACAT IAC</b>	<b>ACAT III</b>	
Capability Development			Replaced by the Problem Statement (PRM/BRM/DOTMLPF-P)

Document			Implementation Plan) and the BUR certified by the AF DCMO
Capability Production Document			Replaced by the Problem Statement (PRM/BRM/DOTMLPF-P Implementation Plan) and the BUR certified by the AF DCMO
DoD Component Live Fire Test and Evaluation Report			
Independent Logistics Assessment			
Initial Capabilities Document			Replaced by Problem Statement
Live Fire Test and Evaluation Report			
Low Rate Initial Production Quantity			
Manpower Estimate			Only required for MDAP
Preservation and Storage of Unique Tooling			
Replaced System Sustainment Plan			
Technology Readiness Assessment			
Termination Liability Estimate			Only for contracts over \$100M

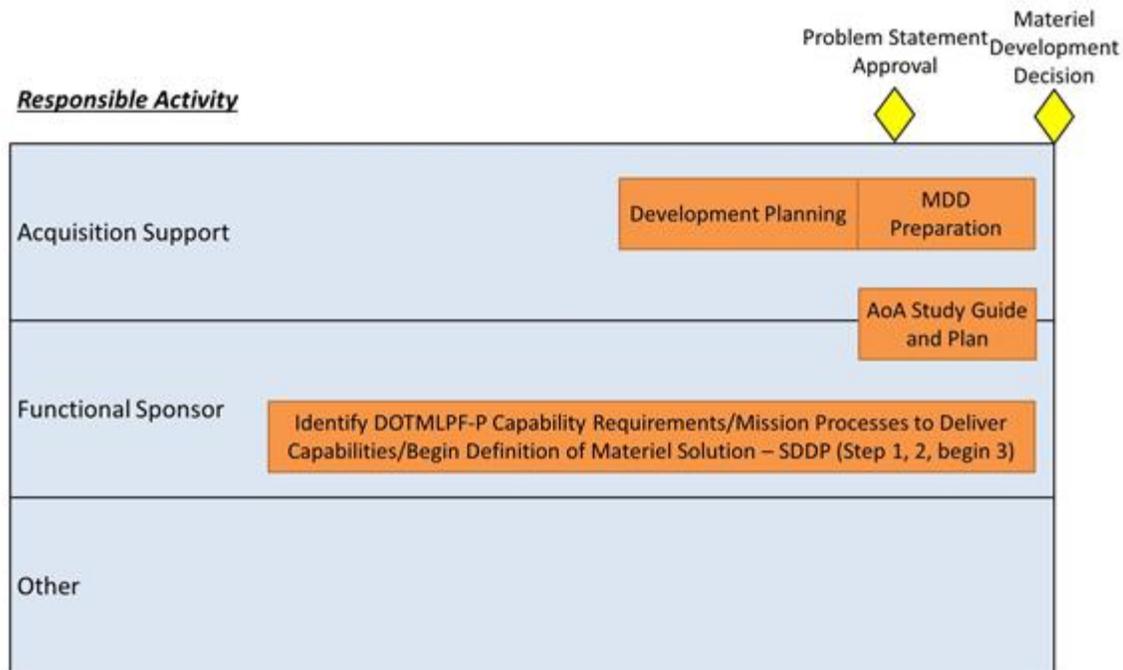
Chapter 4

**BUSINESS CAPABILITY DEFINITION (PRE-MDD TO MDD)**

**4.1. Purpose.** The activities performed and the documentation required in the DBS Problem Statement will be used in lieu of JCIDS capability requirements documents. Business Capability Definition precedes the MDD, and is designed to assess the business problem, identify required business process re-engineering, and inform development of the Initial Problem Statement (PRM). The work conducted during this phase is primarily the responsibility of the Functional Sponsor and will result in a thorough understanding of the problem, need, or gap at a root cause level, the successful identification of the desired outcome, and the completion of a clearly-defined, scoped, and approved Initial Problem Statement (PRM) along with other DOT\_LPF-P actions. The execution of this phase results in process-derived solutions across the entire DOTMLPF-P spectrum. The initial activity focuses on defining the end user problem in detail, transforming business or mission processes, and identifying a set of potential DOTMLPF-P actions to address the need or problem. It is conceivable an effort would terminate when a Sponsor selects an identified non-materiel solution that would resolve the original user problem. Termination would still be considered a success, as user needs may be fulfilled with non-materiel solutions.

**4.2. Phase Activities and Considerations.** Activities during this phase will result in the successful completion of the work required to complete a MDD and be conducted by the Functional Sponsor utilizing AFMAN 33-402. The work conducted during this phase aligns with steps 1, 2, and the beginning of Step 3 of AFMAN 33-402. A general sequence of activity for phase activities is contained in Figure 4.1.

**Figure 4.1. BCD Phase Activities.**



4.2.1. Acquisition Support. Acquisition support during Step 2 and the beginning of Step 3 of AFMAN 33-402 can be provided by Development Planning (DP) or by a PM. Development planning activities provide: market research on products and services identifying realm of possible; enterprise architecture; architecture tools; business model traceability; facilitate mission threads; technical considerations; and initial cost and schedule estimates to meet MDD requirements. **Note:** As the Functional Sponsor is executing AFMAN 33-402 to identify Mission Processes to deliver DOTMLPF-P Capabilities they should identify if acquisition support is needed. The acquisition organization will provide a proposal for the effort and funding required for accomplishing the work. Contact the AFPEO/BES Acquisition Support Office (AFLCMC/HID) for acquisition support ([ASO@us.af.mil](mailto:ASO@us.af.mil)).

4.2.2. Materiel Solution. The Functional Sponsor will determine whether a materiel solution may be required to solve the problem. Assuming the Functional Sponsor's course of action may consist of a materiel solution; they with acquisition support (DP or PM) will determine what areas to analyze post-MDD and make the determination as to the appropriate solution mix (materiel and non-materiel) that will achieve the defined outcomes. If the requirement may result in the acquisition of a materiel solution, the analysis and selection will also support an MDD and selection of the preferred alternative post-MDD. The Functional Sponsor with acquisition support (DP or PM) will then begin preparation of the documents required for a MDD.

4.2.3. Problem Statement Approval. Problem Statement should be created using the latest DBC approved template. Problem Statement should reuse contents from approved AFMAN 33-402 documents (ex: PRM from AFMAN 33-402 Step 1). Functional Sponsor approved Problem Statement will be coordinated by the ESWG and approved by AF DCMO for Covered DBS or approved by OSD DBC for Priority DBS. Work conducted IAW AFMAN 33-402 will inform the development of the Problem Statement required by DoDI 5000.02.

4.2.4. MDD preparation.

4.2.4.1. PEO Portfolio Assignment. The Functional Sponsor shall inform SAF/AQ of the potential program. Information provided contains proposed program description, estimated dollar value, funding status, and anticipated ACAT. With input from AFMC or AFSPC, SAF/AQ will assign the effort to a PEO and include confirmation of proposed ACAT level and MDA authority. Send PEO Portfolio Assignment requests to SAF/AQXE ([usaf.pentagon.saf-aq.mbx.saf-aqxe--enterprise-execution-wkflw@mail.mil](mailto:usaf.pentagon.saf-aq.mbx.saf-aqxe--enterprise-execution-wkflw@mail.mil)).

4.2.4.2. MDD Documentation. The Functional Sponsor with acquisition support (DP or PM) will utilize artifacts developed using AFMAN 33-402 to prepare the documentation required for an MDD. The documentation required for an MDD is listed in Table 4.1. **Note:** Approval authority for documentation is contained in Section 3.4.

**Table 4.1. MDD Documentation.**

Document	Responsible Activity	Notes:
Problem Statement	Functional Sponsor	Results of activities in this phase are summarized in the Problem Statement by the Functional Sponsor. This summarization should provide

		<p>decision makers with the essential information about the business need to make an informed decision supporting the IRB Problem Statement Review and Approval.</p> <p>At this point the Problem Statement includes the PRM.</p>
AoA Study Guidance and Plan	Functional Sponsor and MDA	<p>AoA Study Plan should take into account the objectives and corresponding measures developed during BCD as well as the results of the initial BPR, as these will provide valuable input to how each alternative will be evaluated.</p> <p>These plans will be presented at MDD for approval by the MDA. Refer to DoDI 5000.02 for AoA requirements.</p>
Affordability Analysis	Functional Sponsor	<p>The purpose of affordability analysis is to avoid starting or continuing programs that cannot be produced and supported within reasonable expectations for future budgets. Affordability analysis is used to ensure capability requirements prioritization and cost tradeoffs occur as early as possible in program planning and throughout the program's life cycle. Affordability Analysis should involve the domain programming, resource planning, requirements, portfolio management, and acquisition communities and will yield tentative cost goals at MDD</p> <p>Refer to DoDI 5000.02 for specific requirements</p>

**4.3. MDD.** The AoA Study Guidance and Study Plan, along with the approved Problem Statement, will be reviewed by the MDA at the MDD. Normally the information required to conduct a MDD is developed by the beginning of AFMAN 33-402 step 3 prior to COA evaluation. This decision directs execution of the AoA including expected timelines, and authorizes the acquiring activity to conduct the next phase. MDD initiates the exploration of possible materiel solutions and does not define a specific materiel solution for implementation. The decision starts the transition from requirements to acquisition which is continued post-MDD.

4.3.1. MDD Exit. Upon completion of the MDD, the MDA shall sign an ADM documenting entry into the next phase. The ADM will also document if the MDA has determined that any document that was considered "as needed" (see Table 3.3) is now required, otherwise the document will be treated as not required. The ADM will also identify the PM for the effort. **Note:** At this point Acquisition Support normally begins the transition from DP activity to activities conducted by a Program Office; however, program office support should gradually ramp up while supporting the AoA to a more substantial presence to meet the requirements of the Development RFP.

4.3.2. Acquisition Master List. The PM shall ensure that the program is listed on the Acquisition Master List, in accordance with AFI 63-101/20-101.

## Chapter 5

### MATERIEL SOLUTION ANALYSIS AND RISK REDUCTION (MDD TO MS A/B)

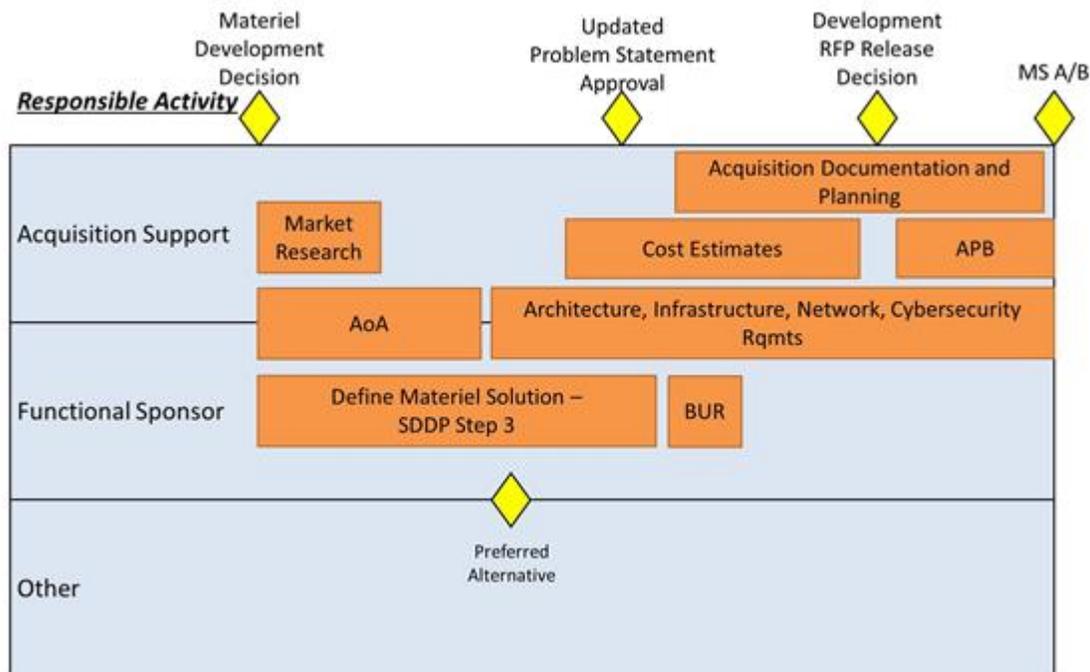
**5.1. Purpose.** To assess potential materiel solutions and develop the strategy to acquire any potential materiel solution, this phase translates validated capability gaps into system-specific requirements including cybersecurity protections. This phase also reduces risk to a point that the decision to contract can be made with confidence. MS A and B can often be combined due to the fact that most DBS rely on existing or commercial technologies utilizing shared infrastructure, existing support processes, and market research and design work conducted as part of the requirements process. MS A may be added back in to address risk at the discretion of the MDA. The expected outcomes and outputs for the phase are summarized in Table 5.1.

**Table 5.1. Phase Expected Outcomes and Outputs.**

Expected Outcomes and Outputs
1) A completed AoA that enables the Functional Sponsor and PM to recommend a preferred alternative
2) A well-defined business and technical management approach that describes how the effort will achieve its objectives using the preferred solution-set. The Acquisition Strategy is the summary level document for plans and strategies which document the approach
3) Compliance with Clinger-Cohen Act requirements
4) Updated Problem Statement (PRM/BRM/DOTMLPF-P Implementation Plan) and the BUR certified by the AF DCMO prior to Dev RFP. User requirements should be derived into system requirements documented in the SRD prior to Dev RFP.
5) An Acquisition Program Baseline (APB)
6) A Request for Proposal (RFP)
7) The ability to award a contract immediately upon receipt of a MS A/B Acquisition Decision Memorandum (ADM)
8) Compliance with Cybersecurity and Program Protection requirements
9) A well-documented Information Support Plan that includes required architectures and, where applicable, the Net-Ready Key Performance Parameter

**5.2. Phase Activities and Considerations.** Activities during this phase will result in the successful completion of the work required to complete a MS A/B. The activities during this phase are the responsibility of the PM and the Functional Sponsor and are focused on the implementation of a materiel solution in the form of IT capabilities and assessing the probability of success of the implementation against performance measures identified as part of the end user's need/problem statement. A general sequence for phase activities is contained in Figure 5.1.

**Figure 5.1. Materiel Solution Analysis and Risk Reduction Activities.**



5.2.1. Portfolio Processes Determination. The PM shall determine the portfolio processes as defined in the portfolio documentation identified in Table 3.1 that the program will follow for execution of the program and document per PEO direction.

5.2.2. Materiel Solution Analysis. The Functional Sponsor will lead an effort to describe the needed requirements to achieve the high-level outcomes and business outcomes defined in the Problem Statement. A framework of outcomes must ensure continuity between the high level objectives and program outcomes, and provide the basis for developing more specific system-level requirements to be tested during execution. This effort will take place from MDD to the Problem Statement Approval and will be done in conjunction with the PM to determine feasibility and requirements for each alternative. This additional information will result in an updated Problem Statement (PRM/BRM/DOTMLPF-P Implementation Plan) and the BUR certified by the AF DCMO. Analysis of the materiel alternatives will consider all possible approaches to implementation, including web services, traditional systems and COTS/GOTS software, including modernization (adding new capability) of legacy systems, and leverage reusable components as much as possible. Additionally, alternatives must be weighed against technical maturity to ensure the alternative is sufficiently mature enough to integrate into a system. Alternatives must also consider requirements associated with the management of data associated with the system and interfaces.

5.2.2.1. Analysis of Alternatives (AoA). The Functional Sponsor with the PM will conduct an AoA to compare the business capability, performance potential, operational effectiveness, cost, and risks of a number of potential alternative solutions to address the problem identified in the Problem Statement. The AoA Study Guide and Plan, as approved by the MDA, is used to conduct the AoA. The Functional Sponsor with the PM shall leverage and align the COA evaluation completed in AFMAN 33-402 to complete the AoA. Each alternative must be evaluated in terms of the initial set of IT requirements

and information assets that address the high level outcomes, business processes, and measures in the Problem Statement and how well it supports the “to-be” state as defined by the initial BPR. Additionally, it will focus on identification and analysis of alternatives: measures of effectiveness; key trades between cost and capability; total life cycle cost, including sustainment; schedule; concepts of operations; and overall risk. The AoA will be informed by affordability analysis, cost analysis, sustainment considerations, early systems engineering and design analyses, cybersecurity, test considerations, threat projections, and market research. The results will be summarized in the Acquisition Strategy and the results of the AoA shall be approved IAW, DoDI 5000.02, and this publication.

5.2.2.2. Market Research. One of the purposes of market research is to determine whether there are products that meet the defined requirements, if existing product could be modified to meet requirements, if existing government owned solutions will meet requirements, or if they could meet requirements modified to a reasonable extent. Reuse of existing solutions will reduce implementation cost and time, simplifies the technical implementation of the materiel solution, and simplifies the programmatic implementation. Market Research is also used to determine a competitive environment and small business capability. Appropriate market research includes thorough, data driven research identifying small business capabilities and expected small business participation levels such as RFIs and surveys. Market research will feed the AoA study plan and the results of the AoA.

5.2.2.3. Selection of Preferred Alternative. The Functional Sponsor with the PM shall select the best-value alternative in terms of cost, best fit for providing the desired business capability, mission-risk, performance, support, and for satisfying the requirement as defined in the Problem Statement. After an alternative has been selected as a result of the AoA, the Functional Sponsor along with the PM will identify when the previously generated “to be” processes will be modified to accommodate the preferred alternative. The selection of the preferred alternative will be used to update the Problem Statement (PRM/BRM/DOTMLPF-P Implementation Plan) and the BUR certified by the AF DCMO approval. **Note:** Refer to DoDI 5000.02 for requirement to reach IOC within 5 years of MS A or selection of preferred alternative.

5.2.2.4. Materiel Solution Refinement. Prior to contracting for the materiel solution the PM in conjunction with the Functional Sponsor will take the requirements identified in the updated Problem Statement (PRM/BRM/DOTMLPF-P Implementation Plan) and the BUR certified by the AF DCMO and derive them into requirements captured in the System Requirement Document (SRD). **Note:** If the preferred alternative is an IT Service then refer to AFI 63-138, Acquisition of Services for the requirements applicable to IT Services. If the preferred alternative involves the procurement of commodities (such as COTS software), and does not involve development or modification activities of a new capability, the acquisition should be considered for exemption to the Acquisition Master List (AML) IAW AFI 63-101. If the preferred alternative is a non-materiel solution or materiel alternative that does not require program office support then the decision may be made to stand-down program office support.

5.2.3. Capability Build Strategies. To provide best-value to the DoD and deliver planned business capabilities to the user within desired Functional Sponsor defined deployment

schedule, the PM and Functional Sponsor should properly scope and allocate the delivery of planned business capabilities (i.e., program outcomes) for the program. The deployable capability should also tie to benefits and/or specific performance measures or outcomes. This approach provides the PM and Functional Sponsor with the ability to deliver high-value business capabilities and flexibility to reduce overall program risk by creating more manageable units of work.

5.2.3.1. Working with the Functional Sponsor the PM will consider an initial capability with basic, militarily useful functionality and a flexible, extensible architecture followed by architecture builds scoped to rapidly deliver new capability. Ensure increments or builds are scaled to be obtainable with an appropriate period of time at an appropriate cost. A user requirement(s) can be satisfied by multiple increments with each increment delivering a subset of useful capability or one increment comprised of multiple builds to meet the user requirement(s).

5.2.3.2. The PM needs to keep track of cumulative cost of increments as they may eventually exceed the MAIS threshold (even if each increment is at the ACAT III level). Additionally, if a MAIS has multiple increments, they are all considered MAIS regardless of dollar value. Reference DoDI 5000.02 for more information.

5.2.3.3. The PM will ensure that the program is structured so that the program is not overwhelmed with frequent milestone or deployment decision points and associated approval reviews. Multiple activities or build phases may be approved at MS B or later decision points subject to adequate planning, well-defined exit criteria, and demonstrated progress. However, each increment should be sufficiently long to deliver a meaningful capability increase over the previous increment. It is important to avoid the superficial appearance of speed by ensuring each increment provides a militarily useful and supportable operational capability.

5.2.4. Architecture. The PM in conjunction with the Functional Sponsor will develop the necessary architectures that align with the Air Force Enterprise Architecture and DoD Business Enterprise Architecture (BEA) to meet the requirements for MS A/B. Alignment with the Business Enterprise Architecture (BEA) should begin as part of the requirements process and extend into the development of the materiel solution. The architecture products include the program's system as well as its potential interfaces and/or impacts to external systems. For systems that will directly support and/or serve as an accountable property system of record, the PM shall ensure that system requirements comply with DoDI 5000.64, Accountability and Management of DoD Equipment and Other Accountable Property. The architectures must be included in the Information Support Plan for Development RFP Release; approved at Milestone B. The PM shall follow the policies and procedures detailed in AFI 33-401, Air Force Architecting.

5.2.5. Infrastructure and Network Requirements. Initial planning begins as support for the AoA to determine the Infrastructure and Network requirements of a number of potential alternative solutions. Once the preferred alternative is selected the PM and the Functional Sponsor will develop requirements that will drive appropriate and affordable infrastructure service solutions for the selected program. The PM will leverage enterprise services and existing infrastructures in order to identify technical requirements for the materiel solution. Technical requirements can be informed by use cases and information exchange

environments that need to interface with the materiel solution, and thus place requirements on the materiel solution implementation. These requirements will be refined into implementable requirements for the Development RFP and other providers. The PM shall ensure that the processes in AFI 33-115, Air Force Information Technology (IT) Service Management, are followed. The PM shall work with PEO Command, Control, Communications, Intelligence & Networks (C3I&N), who manages the implementation baseline of the AF Network, to determine infrastructure and network capabilities.

5.2.5.1. Common Computing Environment (CCE). All new and modernizing (changing configuration baseline) IT applications shall utilize the Air Force CCE. The CCE is provisioned by the PEO C3I&N Managed Services Office (MSO). The MSO has established a set of baseline-driven platform and infrastructure services in both physical and virtual hosting environments. PMs shall follow the processes defined in AFI 33-115 to utilize the CCE.

5.2.5.2. Enterprise Software. The PM should assess the DoD Enterprise Software Initiative (DoD ESI), Federal Strategic Sourcing Initiative procurement vehicles, and Defense Component-level Enterprise Software Licenses when procuring commercial IT. **Note:** The PM must obtain funds for initial start-up expenses, licenses, servers, and first year of maintenance out of program dollars.

5.2.5.3. Data Center Consolidation. If a PM intends to obligate funds for data servers, data centers, or the information systems technology used therein, he or she must obtain prior approval from the DoD CIO. The request must be approved by the Air Force CIO. The PM shall submit requirements for required approvals of data servers and associated IT using the processes described in AFI 33-150, Management of Cyberspace Support Activities.

5.2.5.4. Cloud Computing. PEO C3I&N will act as a technical center to ensure that an application meets the technical requirements to move to a cloud. PEO C3I&N will assist AF acquisition programs to define requirements and capabilities that can be implemented utilizing DoD approved cloud offerings. The DoD CIO released a Cloud Computing Security Requirements Guide (SRG) which outlines the minimum security requirements for the Department when using commercial and internal cloud services. Refer to AFI 33-115 for more information on cloud computing requirements.

5.2.5.5. Interoperability. The PM shall ensure that interoperability certification is achieved in accordance with DoD Instruction 8330.01, Interoperability of Information Technology (IT), Including National Security Systems (NSS) and AFGM2015-33-03, Air Force Interoperability & Supportability of IT/NSS.. Interoperability considerations will be documented in the Information Support Plan (ISP), and test requirements will be coordinated with the appropriate agency (CIO for AF, Joint Interoperability Test Command (JITC) for Joint requirements). Test considerations will be included in test planning and documented in the Acquisition Strategy. Business system interoperability between business systems in different functional areas should be assessed. Programs are required to incorporate funding to execute interoperability certification tests by the JITC in their funding profiles in accordance with DoDI 8330.01 and AFGM2015-33-03.

5.2.5.6. IT System Registration. The Functional Sponsor, Portfolio Manager, and PM shall ensure that the program is registered in EITDR and eMASS per AFI 33-141, Air

Force Information Technology Portfolio Management and IT Investment Review and AFI 33-210, Air Force Certification and Accreditation (C&A) Program (AFCAP).

5.2.6. Cybersecurity. Initial cybersecurity planning supports the AoA by defining the initial security considerations, but once the preferred solution is selected, the PM in conjunction with the Functional Sponsor shall identify the cybersecurity requirements for the program. This will include implementing the processes detailed in the portfolio processes, the cybersecurity strategy, determining the type of Information Technology, categorizing the system, adversary cyber threat inputs, identifying the system-specific controls required per the Risk Management Framework (RMF), and identifying other cybersecurity considerations. Cybersecurity requirements will be captured in the relevant requirements and acquisition documentation and the development RFP. The PM shall obtain System Owner concurrence that system cybersecurity technical requirements are consistent with stakeholder requirements.

5.2.6.1. Risk Management Framework (RMF). The PM in conjunction with the Functional Sponsor shall implement RMF to include the system categorization, continuous monitoring strategy, initial security control selection, and the agreed to list of artifacts supporting the RMF process. RMF activities should be initiated as early as possible in the DoD acquisition process to increase security and decrease cost and build upon the Security Reference Model defined as part of AFMAN 33-402. The PM must ensure the planning and execution of all RMF activities are aligned, integrated with, and supportive of the system acquisition process. The RMF shall be implemented in accordance with DoDI 8510.01, Risk Management Framework (RMF) for DoD Information Technology (IT), and AFI 33-210. For more information on integrating RMF reference, the DoD Program Manager's Guidebook for Integrating the Cybersecurity Risk Management Framework (RMF) into the System Acquisition Lifecycle.

5.2.6.2. Data Protection. PMs in conjunction with the Functional Sponsor of AF DBS systems (including those supported through contracts with external sources) that collect, maintain, use, or disseminate data must protect against disclosure to non-approved sources while meeting the organization's record keeping needs. Unclassified Controlled Technical Information will be protected IAW DFARS 204.73 and AFI 61-204.

5.2.6.3. Privacy. The PM in conjunction with the Functional Sponsor shall ensure privacy requirements and risk management controls are identified that protect privacy act and personally identifiable information in accordance with DoD 5400.11-R, DoD Privacy Program and AFI 33-332, Air Force Privacy and Civil Liberties Program.

5.2.7. Program Protection Planning. Initial planning for program protection begins as support for the AoA by defining the initial program protection considerations and builds upon the Security Reference Model defined as part of AFMAN 33-402. Once the preferred solution is selected, the PM shall identify the program protection requirements for the program. The PM will implement the portfolio-level processes and methodologies and define program-specific information including critical program information, software assurance, and implement Trusted Systems and Network procedures. Program-specific items shall be documented. Refer to AFPAM 63-113, Program Protection Planning for Life Cycle Management, DoDI 5200.44, Protection of Mission Critical Functions to Achieve Trusted

Systems and Networks (TSN), and DoDI 5200.39, Critical Program Information (CPI) Identification and Protection Within Research, Development, Test, and Evaluation (RDT&E) for more information.

5.2.7.1. Software Assurance (SwA). The PM shall identify how software will be designed and tested to assure protection of critical functionality, identify how software of unknown pedigree (i.e., software from sources buried in the supply chain) will be protected and tested/vetted, and define the software assurance countermeasures that will be implemented.

5.2.7.2. Trusted Systems and Networks (TSN). The PM shall implement TSN requirements IAW DoDI 5200.44, if the system is determined to be NSS, has a high impact to loss of confidentiality, integrity or availability, or other DoD information systems that the SAE or CIO determines to be critical to the direct fulfillment of military or intelligence missions.

5.2.7.3. Acquisition Intelligence Support. Acquisition Intelligence products and services can be provided through the supporting Senior Intelligence Officer. Refer to AFI 63-101 for more information.

5.2.8. Test Planning. The PM shall implement the portfolio-level processes and methodologies defined in the Portfolio TEMP and define program specific information including the system critical technical parameters (CTP) and evaluation framework prior to development of the materiel solution. Program-specific information will be documented and shall identify the necessary plans needed to confirm the system's technical requirements to include cybersecurity. The portfolio process should identify shared resources, organizations, processes, and evaluation approaches that are not program specific. Refer to AFI 99-103 for more information on test planning and execution. **Note:** DBS programs on OSD oversight require a standalone TEMP.

5.2.8.1. Critical Technical Parameters. The PM shall ensure CTPs are measurable and testable, traceable to key system requirements and architectures, and help the PM translate CTPs into system requirements for development and integration. CTPs measure critical system characteristics that, when achieved, enable the attainment of desired operational performance capabilities. While not user requirements, CTPs are technical measures derived from desired user capabilities. CTPs must reflect the system's definition and design for key elements and should be correlated to Critical Operational Issues (COI) and OT&E test objectives (i.e., Measures of Effectiveness (MOE), Measures of Suitability (MOS), and Measures of Performance (MOP)).

5.2.8.2. Development Evaluation Framework. The PM shall develop a development evaluation framework that shows the correlation between the Critical Operational Issues (COI), key requirements (Key Performance Parameters (KPP) and Key System Attributes (KSA), key test measures (CTPs, MOEs, MOSs, and MOPs), planned test methods, and test resources, facilities, or infrastructure needs.

5.2.9. Product Support. Product support planning begins with the AoA which describes the notional high-level product support and maintenance concepts to be used for a number of potential alternative solutions. Once the preferred solution has been selected these concepts are expanded into a strategy for the entire program based on the technology and acquisition

approach. The PM in conjunction with the Functional Sponsor shall implement the portfolio-level processes and methodologies and define program-specific information including requirements; system performance indicators or other key drivers and key supportability requirements included in the system and design specifications. Portfolio methodologies should include assessments; support strategy; performance-based agreements; key metrics, the view of sustainment contracts, and the major product support elements and plan/agreement for acquiring and deployment the preferred solution. These activities will inform the topics addressed in product support planning. Product support activities and requirements are further documented in Chapter 7.

5.2.9.1. Cyber Product Support Considerations. The PM shall ensure that product support planning is sufficient for the system to implement all actions required by Cyber C2 orders directing NetOps Services (e.g. Vulnerability Management) and report compliance/non-compliance according to the orders and applicable methods and procedures for NetOps Services.

5.2.9.2. Product Support BCA. When applicable, the PM will conduct a Product Support BCA in accordance with AFI 63-101/20-101.

5.2.10. Funding and Cost Estimating. Once the alternative is selected, the PM will prepare a Funding Profile that documents the proposed overall strategy for funding the program. Defining a Funding Profile is essential for ensuring program stability over its planned lifecycle and for providing a disciplined approach for PMs to execute their programs within cost and available funding. The Functional Sponsor is ultimately responsible for ensuring that funding is identified and obtained. The Functional Sponsor is also responsible for ensuring funds are certified IAW 10 USC 2222.

5.2.10.1. Cost Estimates. A Program Office Estimate (POE) is required for all DBS and shall be completed annually with the concurrence of the life cycle management, nuclear warfare, and sustainment center (if required) financial management cost organization. If the DBS is an ACAT IA program, the PM shall also prepare a Cost Analysis Requirements Description in accordance with DoDI 5000.02, DoDI 5000.73, and AFI 65-508, and support the development of the Independent Cost Estimate and Service/Component Cost Position. ACAT I DBS programs are required to submit a Service/Component Cost Position for CCA. All other DBS programs submit a Life Cycle Cost Estimate for CCA. Refer to AFI 65-508, Cost Analysis Guidance and Procedures for details.

5.2.10.2. Economic Analysis. The PM shall conduct an economic analysis in accordance with AFI 65-501, Economic Analysis.

5.2.11. Problem Statement Update and Approval. Once the preferred alternative is selected, the Functional Sponsor will update the Problem Statement (PRM/BRM/DOTMLPF-P Implementation Plan) and the BUR certified by the AF DCMO. This action will precede the Development RFP Release Decision Point and provides a basis for preliminary activities supporting the Development RFP that will occur prior to Milestone B unless waived by the MDA.

**5.3. Development RFP Development and Decision.** The PM should finish assessing infrastructure and network, cybersecurity, program protection, test, and product support

requirements for the program and refine them into technical requirements for the RFP. The RFP shall be informed by the updated Acquisition Strategy and must convey a clear understanding of the government's needs to industry.

5.3.1. Network Centric Solutions (NETCENTS). The NETCENTS contracts are the mandatory source for all AF units purchasing IT products and solutions that fall under the scope of the NETCENTS contract, guidance for PMs is contained in AFI 63-101/20-101.

5.3.2. Information Technology Asset Management. The PM should review AFMAN 33-153, Information Technology Asset Management (ITAM), for requirements on IT Hardware and Software Asset Management, including accounting, ordering, and mandatory use contract vehicles associated with IT assets.

5.3.3. Development RFP Release Decision Point. This decision point authorizes the release of the RFP(s) for the next phase. The purpose is to have the MDA review and approve the Acquisition Strategy and authorize the release of the RFP(s) so evaluation can begin while the remaining activities are being completed. The documentation required for the Development RFP Release Decision Point is listed in Table 5.2. **Note:** Approval authority for documentation is contained in Section 1.4 and MS A/B documentation drafts are required for the Development RFP release decision.

**Table 5.2. Development RFP Documentation.**

Document	Responsible Activity	Notes:
Acquisition Strategy	Program Manager	The Acquisition Strategy is approved by the MDA at each milestone or relevant decision point
Draft RFP	Program Manager	The content in the RFP is organized in such a manner to clearly define the scope of products and services for the Increment and allow the Government to effectively evaluate proposals. The PM leads the development of the SRD. The requirements from the BUR are captured in the SRD for inclusion in the RFP.
Analysis of Alternatives	Functional Sponsor	Refer to DoDI 5000.02 for AoA requirements.
Problem Statement	Functional Sponsor	Once the preferred alternative is selected, the Functional Sponsor will update the Problem Statement (PRM/BRM/DOTMLPF-P Implementation Plan) and the BUR certified by the AF DCMO

5.3.4. Development RFP Release Decision Point Exit. Decisions resulting from the Development RFP Release Decision Point will be documented in an ADM. The ADM will document specific criteria required for Milestone A/B approval including needed test actions, affordability requirements, and funding requirements.

**5.4. MS A/B.** This milestone provides authorization to enter into Development and Deployment and to award contracts for Development and Deployment. It also commits the required investment resources to the program. Many requirements for this milestone should be

satisfied by the Development RFP Release Decision Point; however, if any significant changes have occurred, or if additional information not available at the Development RFP Release Decision Point could impact this decision, it must be provided at the Milestone A/B. The documentation required for MS A/B is listed in Table 5.3. **Note:** Approval authority for documentation is contained in Section 1.4. The Development RFP draft documentation shall be finalized for this decision point. Every program will identify the tailoring from the required Portfolio Documents in Table 3.1. All programs should review the documentation identified in Table 3.2 and 3.3 for applicability.

**Table 5.3. MS A/B Documentation.**

Document	Responsible Activity	Notes:
Portfolio Documents	PEO/Program Manager	Every program will identify the tailoring from the required Portfolio Documents in Table 3.1.
Acquisition Strategy	Program Manager	This will include program specific information for test, systems engineering, program protection, and sustainment. The Acquisition Strategy is approved by the MDA at each milestone or relevant decision point.
Acquisition Program Baseline	Program Manager	Milestone B is normally the formal initiation of an acquisition program with the MDA's approval of the Acquisition Program Baseline (APB).
Clinger-Cohen Act (CCA) Compliance	Program Manager	Procedures are contained in AFMAN 33-407.
Cybersecurity Strategy	Program Manager	Programs should document security levels of the program. Refer to DoDI 5000.02, DoDI 8500.01, and AFI 33-210 for more information
Economic Analysis	Program Manager	Procedures and Applicability are in AFI 65-501 and AFMAN 65-506. SAF/FMC has developed a tailored Economic Analysis to assist smaller DBS programs
Information Support Plan	Program Manager	Procedures are documented in AFGM 2015-33-03, DoDI 5000.02, and DoDI 8330.01
DBC Certification	Functional Sponsor	Approval memorandum to obligate funds.
Program Office Estimate	Program Manager	AFI 65-508

5.4.1. MS A/B Exit. The MDA will document decisions in an ADM including the specific technical event-based criteria for making deployment decisions and may delegate limited deployment decisions to the PM. The MDA approves the updated Acquisition Strategy and the APB.

5.4.2. Acquisition Program Baseline (APB). The APB is the agreement between the MDA and the Program Manager and his or her acquisition chain of command that will be used for tracking and reporting for the life of the program or program increment. Milestone B is

normally the formal initiation of an acquisition program with the MDA's approval of the APB.

## Chapter 6

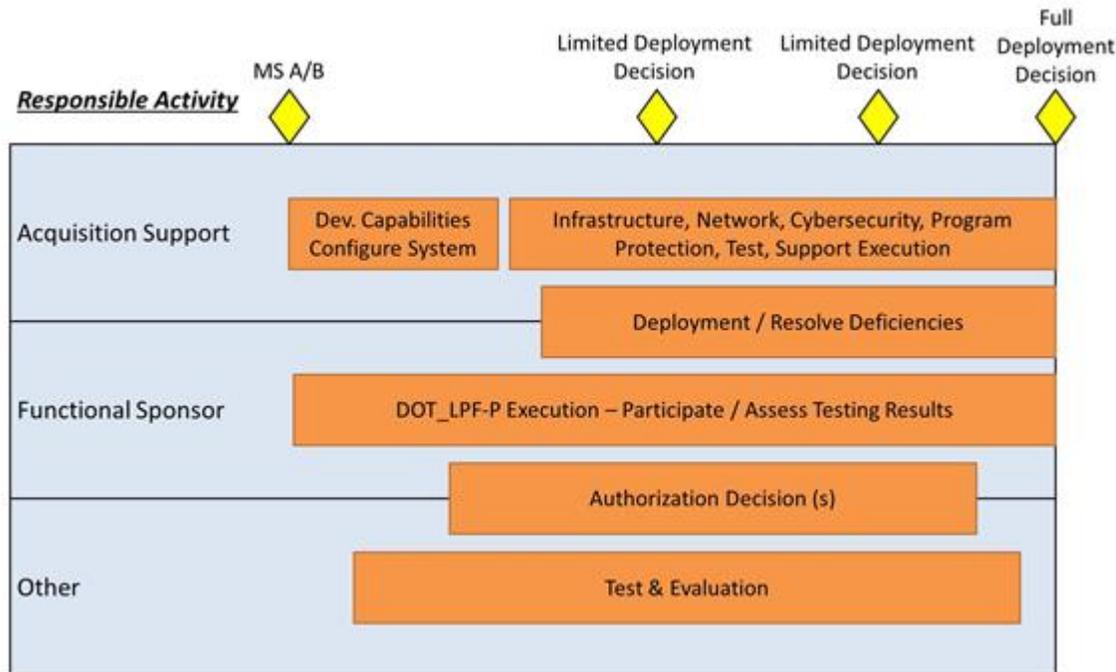
### DEVELOPMENT AND DEPLOYMENT (MS A/B TO FULL DEPLOYMENT DECISION)

**6.1. Purpose.** This phase demonstrates that the materiel solution for the increment has been designed, configured, developed, and tested in a manner consistent with the approved Acquisition Strategy, and to limit risk by providing the capability to a limited number of users or providing the user with a mature and tested (sub-element of the overall incremental) capability. OT&E shall determine the operational effectiveness and suitability of the system. The expected outcomes and outputs for the phase are summarized in Table 6.1.

**Table 6.1. Phase Expected Outcomes and Outputs.**

Expected Outcomes and Outputs
1) Completion of developmental testing with the appropriate Test Agency / Organization according to the pre-established procedures identified in the Portfolio TEMP. Demonstrating that the capability or increment of capability has been designed, configured, developed, and tested in accordance with the test plan and the MS A/B ADM. <b>Note:</b> DBS programs on OSD oversight require a standalone TEMP
2) Completion of operational testing resulting in an operationally tested capability that meets the MDA-approved schedule and that includes capabilities that are secure, suitable, operationally useful, and accepted by the user. All programs that result in a FDD or limited deployment decision require an appropriate type of operational testing supported by sufficient independent evaluation to inform that decision.
3) Making preparations for sustaining the capability (continuing product support planning begun in previous phases)
4) Integrating the DOT_LPF-P aspects of the solution, as appropriate
5) Authority to Operate the system IAW AFI 33-210 and DoDI 8510.01
6) The Functional Sponsor's declaration of Initial Operational Capability (IOC). <b>Note:</b> IOC criteria will be provided by the Functional Sponsor and documented in the APB at MS A/B

**6.2. Phase Activities and Considerations.** Activities during this phase will result in the successful completion of the work required to reach Full Deployment. The activities during this phase are the shared responsibility of the PM and the Functional Sponsor. A general sequence for phase activities is contained in Figure. 6.1.

**Figure 6.1. Development and Deployment Activities.**

6.2.1. Test Execution. The test community shall test and evaluate the delivered capability to determine if it adheres to the outcomes defined and documented. The test planning for the program shall consider all aspects of the system requirements to include security, interoperability, as well as performance. Prior to conducting test activities refer to AFI 33-210 to ensure proper cybersecurity authorizations have been attained.

6.2.1.1. For MAIS, developmental testing shall be conducted in accordance with the test plan, as documented, and approved by the DASD(DT&E). Operational testing shall be conducted in accordance with the Operational Test Plan approved by the DOT&E.

6.2.1.2. For ACAT III programs, testing may be conducted using the processes and procedures, resources, and methodologies described in the Portfolio Test and Evaluation Master Plan. The PM should identify how those processes will be used to execute testing to assess the CTPs.

6.2.1.3. For IT with joint, multinational, and interagency interoperability requirements, PMs must coordinate with JITC in the review of IT developmental and operational test plans to gain as much interoperability test data from those events as possible. Coordination is accomplished through the Air Force Interoperability Steering Group (ISG) Representative.

6.2.2. Limited Deployment. A Limited Deployment Decision may be conducted for each build within an increment of capability. Each increment may have several limited deployments; each deployment will result from a specific build and provide the user with a mature and tested sub-element of the overall incremental capability. Several builds and deployments will typically be necessary to satisfy approved requirements for an increment of capability. The PM and Functional Sponsor can make Limited Deployment Decisions if the delegation of authority is documented and approved by the MDA in the MS A/B ADM.

6.2.2.1. Limited Deployment Decision CCA Review. The PM can bundle all the Limited Deployment Decision CCA reviews into one CCA review in consultation with SAF/A6. This means that if the program has a stable schedule and plans for multiple Limited Deployment Decisions, the PM can submit one CCA review package that will be reviewed for all identified Limited Deployment Decisions.

6.2.2.2. Limited Deployment Operational Testing. Limited Deployments must be supported by the appropriate level of OT&E. DBS may utilize an Operational Utility Evaluation or Operational Assessment IAW AFI 99-103 for their Limited Deployment events. OUEs may be used to support operational decisions (e.g., deploying a system with less than full capability, to include but not limited to integrated testing of releases and increments of IT capabilities).

6.2.2.3. Limited Deployment Decisions for Software-intensive programs. Limited Deployments that have joint interfaces will be assessed for interoperability test assessments (vice) certifications by the Joint Interoperability Test Command (JITC). This coordination will be accomplished through the Air Force Interoperability Steering Group (ISG) Representative.

6.2.3. DOT\_LPF-P Execution. The Functional Sponsor in parallel with the PM deployment of the materiel solution ensures the DOT\_LPF-P elements are completed to complement the deployment schedule.

6.2.4. Operational Testing. The PM will manage the program to ensure system readiness for OT&E and that OT&E will provide sufficient data to assess system operational effectiveness, suitability, and survivability. Functional Sponsor, informed by dedicated operational testing results and DOT&E recommendations (for DBS on the OT&E oversight list), will verify capability requirements are met prior to the Full Deployment Decision. The PM will track, evaluate, and take appropriate actions to resolve deficiency reports (DR). For DBS that have a dedicated phase of OT&E supporting a deployment decision, an OT&E readiness certification will be conducted IAW AFMAN 63-119 and AFI 99-103. Once capability requirements have been verified, the PM will move towards Full Deployment.

6.2.5. Product Support Implementation. The PM shall ensure that lifecycle support is ready to implement as it was defined in planning documents for the program and update the Life Cycle Sustainment Plan (LCSP) program unique factors. Refer to AFI 63-101/20-101 for product support considerations.

6.2.5.1. The PM works with end-users to ensure they are appropriately trained in using the materiel solution and that issues are identified and addressed expediently prior to reaching IOC.

6.2.5.2. The PM shall ensure that the program has the necessary resources, funding, and capability to implement information assurance and program protection requirements throughout the program life cycle. This includes having a structure in place to re-accredit the system according to the Risk Management Framework and update the system to meet new technical standards and protocols.

**6.3. Full Deployment Decision (FDD).** The MDA will conduct a review to assess the results of OT&E and Limited Deployment, and determine whether or not to approve proceeding to Full Deployment. Continuing into Full Deployment requires acceptable performance and reliability,

and the establishment of adequate sustainment and support systems. The Functional Sponsor should ensure all elements of the solution described in the Problem Statement, BUR, and Acquisition Strategy are ready to be implemented in the operational environment. The documentation required for FDD is listed in Table 6.2. **Note:** approval authority for documentation is contained in Table 3.1-4. ACAT I programs may require additional documentation identified in Table 3.2. Every program will identify the tailoring from the required Portfolio Documents in Table 3.1. All programs should review the documentation identified in Table 3.2 and 3.3 for applicability.

**Table 6.2. FDD Documentation.**

Document	Responsible Activity	Notes:
Portfolio Documents	PEO/Program Manager	Every program will identify the tailoring from the required Portfolio Documents in Table 3.1.
Acquisition Strategy	Program Manager	The Acquisition Strategy is approved by the MDA at each milestone or relevant decision point.
Clinger-Cohen Act (CCA) Compliance	Program Manager	Procedures are contained in AFMAN 33-407
Cybersecurity Strategy	Program Manager	Programs should document security levels of the program. Refer to DoDI 5000.02, DoDI 8500.01, and AFI 33-210 for more information
Economic Analysis	Program Manager	Procedures and Applicability are in AFI 65-501 and AFMAN 65-506. SAF/FMC has developed a tailored Economic Analysis to assist smaller DBS programs
Information Support Plan	Program Manager	Procedures are documented in AFGM 2015-33-03, DoDI 5000.02, and DoDI 8330.01
DBC Certification	Functional Sponsor	Approval memorandum to obligate funds
PIR Plan	Functional Sponsor / Program Manager	Requirements are contained in AFI 63-101/20-101 and AFMAN 33-407

6.3.1. FDD Exit. The decision to proceed into full deployment will be documented in an ADM.

## Chapter 7

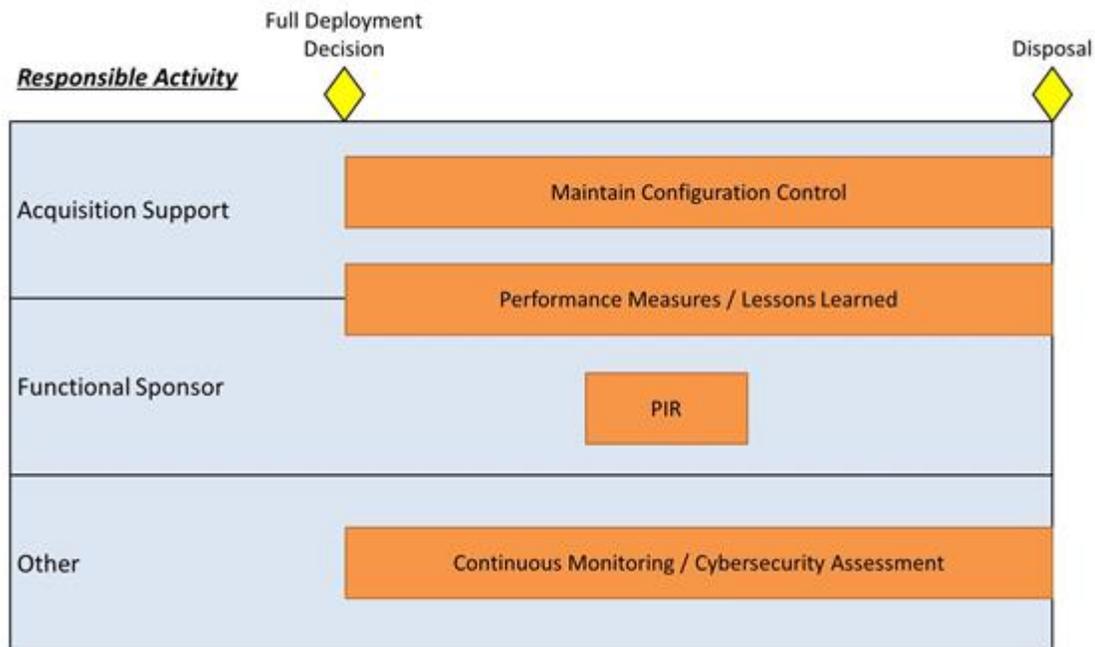
### FULL DEPLOYMENT AND OPERATIONS AND SUSTAINMENT

**7.1. Purpose.** This phase brings together training with technical support to implement the capability to the entire user community described in the Acquisition Strategy in order to maintain materiel readiness, provide operational support (e.g., help desk), monitor performance, and sustain the capability in the most cost-effective manner possible over its total lifecycle. The end of this phase is reached with the disposal of the capability when it has reached the end of its useful life. The expected outcomes and outputs for the phase are summarized in Table 7.1.

**Table 7.1. Phase Expected Outcomes and Outputs.**

Expected Outcomes and Outputs
1) Functional Sponsor schedules and conducts a Post Implementation review
2) Support to users, until disposal of the capability
3) Requirements inputs for next increment that may impact the Acquisition Strategy
4) Implementation of required configuration changes and technical orders to maintain capability and maintain the technical baseline
5) Updates to program processes including product support, systems engineering, program protection, and cybersecurity
6) Maintaining the systems ATO IAW the Risk Management Framework
7) Testing activities required for programs in sustainment undergoing modification as part of each program's lifecycle.

**7.2. Phase Activities and Considerations.** Activities during this phase will result in the remaining production or deployment of the product leading to Full Deployment. Activities will ensure the program meets materiel readiness and operational support performance requirements and sustains the system in the most cost-effective manner over its total lifecycle. The planning for this phase shall have begun prior to Dev RFP and will have been updated continuously throughout the programs useful life.

**Figure 7.1. Deployment and Operations and Sustainment Activities.**

7.2.1. Full Deployment. The Functional Sponsor declares Full Deployment (FD) when all capability requirements are in place.

7.2.2. Performance Measures and Lessons Learned. As the system is deployed, the PM and Functional Sponsor should pay attention to the performance measures during deployment, as these should be an indicator of potential issues and will inform successive increments. Additionally, the PM and Functional Sponsor should document lessons learned to understand what worked and what did not regarding the solution's quality and performance. PEOs should collect the lessons learned to apply to future efforts, these lessons can result in general program improvement, reduced risk, increased probability of future successes, and reduce the potential for future failures.

7.2.3. Post Implementation Reviews (PIR). PIRs report the degree to which DOTMLPF-P changes have achieved the established measures of effectiveness and efficiencies for the desired capability; evaluate systems and increments to ensure positive ROI and decide whether continuation, modification, or termination of the systems is necessary to meet mission requirements; and document lessons learned from the PIR. If the PIR overlaps with Follow-on Operational Test and Evaluation, the sponsor should coordinate planning of both events for efficiency. PIRs should be submitted to the AF CIO for approval. Results of the PIR shall be reported to SAF/MG.

7.2.4. Configuration Control. The PM shall maintain configuration control of the system by complying with the portfolio processes dictated in the portfolio SEP. The portfolio processes shall identify enterprise-level activities including the strategy, configuration process, boards, and tools that allow the program to integrate across multiple increments and projects on the program and external systems. Automated tools can be utilized that allow continuous integration and testing, but should not dictate unnecessary complexity in the configuration process. Just like any program, the PM should ensure structure and rigor when managing

changes to baselines, designs, engineering, and program documentation. The PM is responsible for maintaining all project documentation in the required registries.

7.2.5. Cybersecurity Management. After the system is approved and fielded for operational use, effectiveness of the program's cybersecurity capabilities is monitored in accordance with the AO approved system-level continuous monitoring strategy. The system-level continuous monitoring strategy must maintain conformance to all applicable published DoD enterprise-level or Air Force continuous monitoring strategies. Any change to the system, its environment (to include adversary cyber threat), or its use has the potential to increase or decrease risk; therefore, a cybersecurity risk assessment is necessary to determine the risk level associated with changes. Results of continuous monitoring and subsequent cybersecurity risk assessments may necessitate changes to the system to mitigate newly identified, and unacceptable risk; therefore, the PM must update the Cybersecurity Strategy and indicate in the Plan of Action and Milestones (POA&M) how and when those changes will be implemented. The PM may need to coordinate with organizations outside the (Program Management Office) PMO to ensure actions identified in the POA&M are feasible and are ultimately implemented to the satisfaction of the user, program office and authorizing official. Refer to DoDI 8510.01, AFI 33-210, and AFPAM 63-113 for more information.

7.2.6. Product Support. Product support management for DBS includes executing the processes identified in the portfolio LCSP and any program unique factors to the program. This should address the required help desk support, IT support contracts, license managements, configuration management processes, and other sustainment activities that are captured in the Product Support Elements.

7.2.7. Maintenance Actions. The correction of discovered faults, keeping a computer program usable in a changed software environment, or improving its processing performance or maintainability without adding new capability should be done IAW the portfolio processes.

7.2.8. Modifications. Functional Sponsor requirements that add new capability, change the functional baseline, or significantly increase capability will be documented in a new or updated Problem Statement per AFMAN 33-402. Major modifications may necessitate a new AFMAN 33-402 cycle with a re-engineering of the business processes. Permanent modifications are normally ACAT programs and should comply with guidance in this AFMAN.

**7.3. FD and O&S Exit.** The PM and Functional Sponsor should consider the requirements to retain/transfer data, dispose of equipment, and privacy information IAW with portfolio processes to dispose of the system.

DARLENE J. COSTELLO  
Principal Deputy,  
Assistant Secretary of the Air Force  
(Acquisition & Logistics)

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFGM2015-33-03, Interoperability and Supportability of Air Force Information Technology and National Security Systems, 23 July 2015

AFI 10-601, Operational Capability Requirements Development, 06 Nov 2013

AFI 14-111, Intelligence Support to the Acquisition Life-Cycle, 18 May 2012

AFI 33-115, Air Force Information Technology Service Management, 16 Sep 2014

AFI 33-141, Air Force Information Technology Portfolio Management and IT Investment Review, 23 Dec 2008

AFI 33-150, Management of Cyberspace Support Activities, 30 Nov 2011

AFI 33-200, Cybersecurity Program Management, 31 Aug 2015

AFI 33-210, Air Force Certification and Accreditation (C&A) Program (AFCAP), 23 Dec 2008

AFI 33-332, Air Force Privacy and Civil Liberties Program, 12 Jan 2015

AFI 33-360, Publications and Forms Management, 01 Dec 2015

AFI 61-204, Disseminating Scientific and Technical Information, 30 Aug 2002

AFI 63-101/20-101, Integrated Life Cycle Management, 07 Mar 2013

AFI 63-138, Acquisition of Services, 21 May 2013

AFI 65-501, Economic Analysis, 29 Aug 2011

AFI 65-508, Cost Analysis Guidance and Procedures, 06 Jun 2012

AFI 65-601, Vol. 1, Budget Guidance and Procedures, 16 Aug 2012

AFI 99-103, Capabilities Based Test and Evaluation, 16 Oct 2013

AFMAN 33-363, Management of Records, 01 Mar 2008

AFMAN 33-402, Service Development and Delivery Process, 25 Sep 2014

AFMAN 33-407, Air Force Clinger-Cohen Act (CCA) Compliance Guide, 24 Oct 2012

AFMAN 63-119, Certification of System Readiness for Dedicated Operational Testing, 20 Jun 2008

AFPD 10-6, Capabilities-Based Planning & Requirements Development, 31 May 2006

AFPD 63-1/20-1, Integrated Life Cycle Management, 03 Jul 2012

AFPAM 63-113, Program Protection Planning for Life Cycle Management, 17 Oct 2013

AFPAM 63-128, Integrated Life Cycle Management, 10 Jul 2014

DoDI 5000.73, Cost Analysis Guidance and Procedures, 9 Jun 2015

DoDI 5000.02, Operation of the Defense Acquisition System, 7 Jan 2015

DoDI 5200.39, Critical Program Information (CPI) Identification and Protection Within Research, Development, Test, and Evaluation (RDT&E), 28 May 2015

DoDI 5200.44, Protection of Mission Critical Functions to Achieve Trusted Systems and Networks (TSN), 5 Nov 2012

DoDI 8330.01, Interoperability of Information Technology, including National Security Systems (IT/NSS), 21 May 2014

DoDI 8510.01, Risk Management Framework for DoD IT, 12 Mar 2014

### ***Prescribed Forms***

No forms are prescribed by this publication.

### ***Adopted Forms***

AF Form 847, Recommendation for Change of Publication.

### ***Abbreviations and Acronyms***

**ACAT** —Acquisition Category

**ADM** —Acquisition Decision Memorandum

**AF** —(U.S.) Air Force

**AF/TE** —Directorate of Air Force Test and Evaluation

**AFFARS** —Air Force Federal Acquisition Regulation Supplement

**AFI** —Air Force Instruction

**AFMAN** —Air Force Manual

**AFMC** —Air Force Materiel Command

**AFOTEC** —Air Force Operational Test and Evaluation Center

**AFPAM** —Air Force Pamphlet

**AFPD** —Air Force Policy Directive

**AFRB** —Air Force Review Board

**AFRC** —Air Force Reserve Command

**AFROC** —Air Force Requirements Oversight Council

**AFRRG** —Air Force Requirements Review Group

**AFSC** —Air Force Specialty Code

**AFSPC** —Air Force Space Command

**AIS** —Automated Information Systems

**ANG** —Air National Guard

**AoA** —Analysis of Alternatives

**AML** —Acquisition Master List

**APB** —Acquisition Program Baseline

**AS** —Acquisition Strategy

**ASP** —Acquisition Strategy Panel

**AT&L** —Acquisition, Technology and Logistics

**BCA** —Business Case Analysis

**BEA** —Business Enterprise Architecture

**CARD** —Cost Analysis Requirements Description

**CC** —Commander

**CCA** —Clinger-Cohen Act

**CCTD** —Concept Characterization and Technical Description

**CD** —Capability Director

**CDD** —Capability Development Document

**CDR** —Critical Design Review

**CDRL** —Contract Data Requirements List

**CDT** —Chief Developmental Tester

**CIO** —Chief Information Officer

**CJCSI** —Chairman of the Joint Chiefs of Staff Instruction

**CLIN** —Contract Line Item Number

**CLS** —Contractor Logistics Support

**COTS** —Commercial Off-the-Shelf

**CPD** —Capability Production Document

**CPI** —Critical Program Information

**CSAF** —Chief of Staff of the Air Force

**CSB** —Configuration Steering Board

**CSCI** —Computer Software Configuration Items

**CV** —Vice Commander

**DASD(DT&E)** —Deputy Assistant Secretary of Defense for Developmental Test and Evaluation

**DAB** —Defense Acquisition Board

**DAE** —Defense Acquisition Executive

**DAF** —Department of the Air Force

**DAG** —Defense Acquisition Guidebook

**DBS** —Defense Business System

**DBC** —Defense Business Council

**DCAPE** —Director of Cost Assessment and Program Evaluation

**DFARS** —Defense Federal Acquisition Regulation Supplement

**DISR** —DoD (Department of Defense) Information Technology Standards Registry

**DoD** —Department of Defense

**DoDD** —Department of Defense Directive

**DoDI** —Department of Defense Instruction

**DOT&E** —Director, Operational Test and Evaluation

**DOTMLPF-P** —Doctrine, Organization, Training, Material, Leadership and Education, Personnel, Facilities, and Policy

**DP** —Development Planning

**DT&E** —Developmental Test and Evaluation

**EITDR** —Enterprise Information Technology Data Repository

**EMD** —Engineering and Manufacturing Development

**EOA** —Early Operational Assessment

**FAR** —Federal Acquisition Regulation

**FDD** —Full Deployment Decision

**FISMA** —Federal Information Security Management Act of 2002

**FMR** —Financial Management Regulation

**FOC** —Full Operational Capability

**FOUO** —For Official Use Only

**FY** —Fiscal Year

**FYDP** —Future Years Defense Program

**HAF** —Headquarters Air Force

**HPT** —High Performance Team

**IA** —Information Assurance

**IAW** —In Accordance With

**ICD** —Initial Capabilities Document

**ILCM** —Integrated Life Cycle Management

**IMP** —Integrated Master Plan

**IMS** —Integrated Master Schedule

**IOC** —Initial Operational Capability

**IPT** —Integrated Product Teams

**IRB** —Investment Review Board

**IS** —Information System

**ISP** —Information Support Plan

**IT** —Information Technology

**ITT** —Integrated Test Team

**JCIDS** —Joint Capability Integration and Development System

**JRAC** —Joint Rapid Acquisition Cell

**JROC** —Joint Requirements Oversight Council

**JS** —Joint Staff

**JUON** —Joint Urgent Operational Need

**LCSP** —Life Cycle Sustainment Plan

**LSE** —Lead Systems Engineer

**MAIS** —Major Automated Information System

**MAJCOM** —Major Command

**MD** —Mission Directive

**MDA** —Milestone Decision Authority

**MDD** —Materiel Development Decision

**MIL-STD** —Military Standard

**MOSA** —Modular Open Systems Approach

**MS** —Milestone

**NDAA** —National Defense Authorization Act

**NR-KPP** —Net Ready Key-Performance Parameter

**NSS** —National Security System

**O&S** —Operation and Support

**OPR** —Office of Primary Responsibility

**OSD** —Office of the Secretary of Defense

**OUSD** —Office of the Under Secretary of Defense

**PEO** —Program Executive Officer

**PIR** —Post-Implementation Review

**PM** —Program Manager

**PPBE** —Planning, Programming, Budgeting, and Execution

**PPP** —Program Protection Plan

**RFP** —Request for Proposal

**RMF** —Risk Management Framework

**RMP** —Risk Management Plan

**SAE** —Service Acquisition Executive

**SAF** —Secretary of the Air Force

**SAF/AQ** —Assistant Secretary of the Air Force (Acquisition)

**SAF/CIO A6** —Chief of Warfighting Integration and Chief Information Officer (CIO)

**SDDP** —Service Development and Delivery Process

**SECAF** —Secretary of the Air Force

**SECDEF** —Secretary of Defense

**SEP** —Systems Engineering Plan

**SOW** —Statement of Work

**SRD** —Systems Requirements Document

**SwA** —Software Assurance

**T&E** —Test and Evaluation

**TEMP** —Test and Evaluation Master Plan

**TSN** —Trusted Systems and Networks

*Terms*

**Refer to AFPAM 63 —128 for a list of Acquisition Terms with Definitions**