

**Acquisition Sustainment Tool Kit (ASTK)**

**1 Sept 2011**

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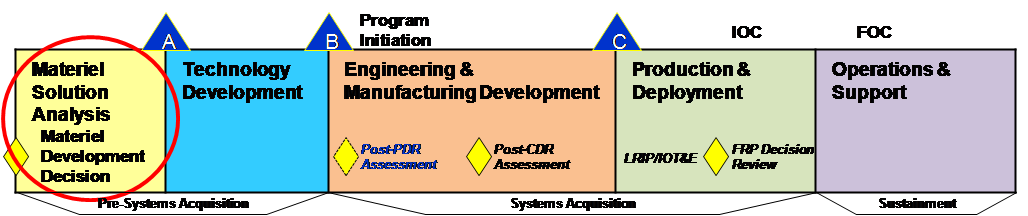
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INTRODUCTION

The ASTK Kneepad Checklist was developed as a quick reference tool for personnel working logistics tasks on weapon system acquisition and sustainment. The tasks are presented by Department of Defense Instruction (DODI) 5000.02 *Operation of the Defense Acquisition System,* Life Cycle Framework phases for easy reference. Each task should be evaluated to ensure that if needed on your weapon system program that it be completed. Appendix A of this document includes checklists that provide more specifics on each task. They include “how to” information, as well as links to reference material. The Product Support Campaign Process Focus Team developed this quick reference tool designed for use with the ASTK Process Matrix and Checklists. All of this material can be found on the Air Force Knowledge Now [Acquisition Sustainment Tool Kit (ASTK) Community of Practice (CoP)](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=MC-LG-01-82) or [ASTK SharePoint Site](https://cs.eis.afmc.af.mil/sites/AST/default.aspx). Any task within the Kneepad that has an expanded checklist in the Appendix is annotated by a hyperlink. All current DOD and Air Force Policy and Instructions, the Acquisition Process Architecture Model, and the Independent Logistics Assessment Handbook were used to develop this list of tasks. The Milestone Decision Authority (MDA) may authorize entry into the acquisition management system at any point consistent with phase-specific entrance criteria and statutory requirements. For programs that enter at points other than directly after the Material Development Decision, refer to the chapters of this guide for the phases which were skipped to ensure coverage of tasks. Specific questions should be addressed through [HQ AFMC/A4U](mailto:AFMC.A4A.Product.Support.Campaign@wpafb.af.mil?subject=A&S%20Tool%20Kit).

Materiel Solution analysis

The purpose of this phase is to assess potential materiel solutions and to satisfy the phase-specific entrance criteria for the next program milestone designated by the Milestone Decision Authority (MDA). Entrance into this phase depends upon an approved Initial Capabilities Document (ICD) resulting from the analysis of current mission performance and an analysis of potential concepts across the DOD Components, international systems from allies, and cooperative opportunities. Following the Materiel Development Decision (MDD), the MDA may authorize entry into the acquisition management system at any point consistent with phase-specific entrance criteria and statutory requirements. 

Task Description

**1.00** ***Analyze Materiel Development Decision (MDD) for Supportability Implications.*** A Materiel Development Decision (MDD) will precede the MDA authorization to enter into this phase. At the MDD review the Joint Staff will present the JROC recommendations. (Reference [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf)). This is the formal entry into the acquisition process and is mandatory for all programs. Evaluate the impact of the decision on any logistics for new or existing systems. Also evaluate the potential impact on Manpower, Personnel, Training and any unique human interface design requirements with respect to new or existing systems. Review LogEA CONOPS for compliance with Architecture.

**1.01** ***Analyze Material Solutions to the Capability Review and Risk Assessment (CRRA) Shortfalls.***A CRRA is a collaborative effort between planning, requirements, acquisition, and sustainment communities and is designed to identify and prioritize Air Force capability needs. The logistician should participate in the analyses where outputs identify potential approaches to resolve identified capability gaps which could be product improvements to existing materiel or facilities alone and/or new materiel starts. The logistician needs to be included on the team to ensure product support is addressed during capability analysis and courses of action that eventually lead to a solution analysis. Product Support includes the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*, Transition to Sustainment Management, Fielding, System Accreditation, Environment, Safety & Occupational Health (ESOH), System Metrics and Classification Guidance supporting System Health and Maintenance Data Collection, Producibility, Interoperability, Corrosion Control, Reliability, Availability, Maintainability and Cost (RAM-C) & System Lifecycle Integrity Management (SLIM) Analyses, Energy Efficiency, and Alternate Fuels considerations. The intelligence professional should participate to insure intelligence supportability, availability, and suitability is considered. Human Systems Integration (HSI), (see [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) Page 7), provides an integrating process to address the human aspect of these areas.

**1.02** ***Analyze Requirements from Other Sources than the Capability Review and Risk Assessment (CRRA).***Ensure product support capabilities and alternatives addressed.

**1.03 *Define Supportability Objectives.***Reference Appendix A, [1.03 Define Supportability Objectives Checklist](#T1_03)

**1.03.1** ***Identify System Lifecycle Integrity Management (SLIM) requirements.*** Reference Appendix A, [2.37.12 Implement SLIM Processes and Programs Checklist](#T2_37_12)

**1.04** ***Define Intelligence Integration During Materiel Solution Analysis.*** This Checklist applies throughout this phase for all tasks. Ensure consideration of the 12 Product Support elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*. Reference Appendix A, [1.04 Accomplish Intelligence Integration throughout the Life Cycle Checklist.](#T1_04) Consider HSI overlapping impacts as contained in [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1).

**1.05** ***Include Supportability Objectives in Initial Capabilities Document (ICD).***Those supportability objectives identified previously should be documented in the ICD to include Technical Data, the 12 Product Support elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*, and Asset Marking to include Item Unique Identification (IUID). Design Interfaces (hardware, software and human), Transition to Sustainment Management, Fielding, System Accreditation, Environment, Safety & Occupational Health (ESOH), System Metrics and Classification Guidance supporting System Health and Maintenance Data Collection, Producibility, Intelligence, Interoperability, Corrosion Control, and Reliability, Availability, Maintainability and Cost (RAM-C) (consistent with the operational support concepts and intended maintainers) & System Lifecycle Integrity Management (SLIM) Analyses must also be considered. Human Systems Integration (HSI), (see [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) Page 7), provides an integrating process to address the human considerations in the ICD. Technical Data includes technical publications, engineering data, and support data (Ref. [FAR 52.227-14](https://www.acquisition.gov/far/html/52_227.html#wp1139363)). The ICD defines the capability gap in terms of the functional area, the relevant range of military operations, desired effects, and time. The ICD supports the concept decision and Milestone A. Logistics, HSI and Intelligence experts should be members of the High Performance Team (HPT) that develops the ICD. Reference Appendix A, [1.05 ICD Checklist](#T1_05)

**1.06** ***Include Product Support Capabilities in Analysis of Alternatives (AoA) Plan*.** Reference Appendix A, [1.06 Analysis of Alternative Checklist](#T1_06)

**1.07** ***Reserved***

**1.08** ***Evaluate Product Support Capability in Analysis of Alternatives (AoA) for the Best Material Approaches.***

**1.09** ***Participate in and Document the Initial Technology Review.*** Current organization and operations are discussed and compared to possible new ways of providing the capability. The methodology is described and results and conclusions of the initial analysis are presented. Consider the impact of the 12 Product Support elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*, Technical Data, Maintenance Concept, Asset Marking to include Item Unique Identification (IUID) and Intelligence supportability. Ensure logistics related design parameters (Design Interface) such as Reliability, Availability, Maintainability and Cost (RAM-C), System Lifecycle Integrity Management (SLIM), Producibility, Testability, Human Factors, Systems Safety, Survivability and vulnerability, Hazardous Material Management, Standardization and Interoperability, Energy Management, Corrosion Control, Non-Destructive Inspection, Energy Efficiency, Noise (ambient & occupational), Alternate Fuels considerations and lifecycle support costs are considered. Human Systems Integration (HSI), (see [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) Page 7), provides an integrating process to address the human aspect of these areas.

**1.09.1 *Address Environmental Safety and Occupational Health (ESOH) issues.*** Reference Appendix A, [1.09.1 Address Environmental Safety & Occupational Health Checklist](#T1_09_1)

**1.10** ***Include Product Support Concepts in Preferred System Concept.*** Reference Appendix A, [1.10 Preferred Systems Concept Checklist](#T1_10)

**1.11** ***Participate in Defining, Analyzing and Selecting Course of Action (COA).*** The COA presents the operational MAJCOM commander with acquisition strategy options for the selected materiel solution resulting from AoAs. The AoAs should clearly articulate performance, schedule, and cost expectations as well as initial risk assessment of the program to ensure expectations are known and agreed to up front. The COA will serve as the basis for the Acquisition Strategy, TDS, T&E Strategy, LCMP and PMA/EMA. Approval at the lead MAJCOM commander and MDA level for the selected COA will ensure agreement among leadership on program expectations, risks and performance (or incremental performance) for specified cost and schedule goals. Ensure COA addresses product support capabilities and alternatives. Logistics, HSI and Intelligence experts should be members of the High Performance Team (HPT) that develops the COA. Review LogEA CONOPS for compliance with architecture.

**1.12** ***Participate in Test and Evaluation Strategy (TES).*** The test and evaluation strategy is a broader view of the risk reduction efforts across the range of test activities that will ultimately produce a valid evaluation of operational effectiveness, suitability, and survivability before full-rate production and deployment. Over time the TES will evolve into the Test and Evaluation Master Plan (TEMP) due at Milestone B. Ensure the TES addresses product support capabilities, alternatives, and testability to include calibration. Ensure Intelligence support concept and technologies are included in the strategy. Ensure logistics, HSI and Intelligence experts interact with the Integrated Test Team (ITT) to address the testing of product support capabilities and alternatives. Ensure that HSI specific concerns and impacts are identified and addressed.

**1.13** ***Participate in System Engineering Plan (SEP) Development*.** The purpose of the SEP is to document the systems engineering effort guiding all technical aspects of the program from the technical strategy. The SEP provides the overarching plan for bringing the hardware, software, and human sub-systems into an integrated system. The SEP is developed early in the materiel solution analysis phase and updated prior to each subsequent Milestone. It should also incorporate the planning that is consistent with Technology Readiness Assessments and successfully execute the Technology Development Strategy. It should be a living document, tailored to the program and should serve as a roadmap to support program management by defining comprehensive system engineering activities, addressing both government and contractor technical activities and responsibilities. Ensure HSI planning is documented in the SEP. Ensure Intelligence requirements and deficiencies are addressed. Review LogEA CONOPS for compliance with architecture. The logistician needs to be included on the team to ensure Reliability, Availability, Maintainability and Cost (RAM-C), System Lifecycle Integrity Management (SLIM), and other product support factors are addressed during engineering analysis and documented in the plan. See [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf), *Guide to Acquisition & Sustainment Life Cycle Management*. Reference Appendix A, [1.13 SEP Checklist](#T1_13) and [2.37.12 Implement SLIM Processes and Programs Checklist](#T2_37_12)

**1.13.1 *Address Human Systems Integration (HSI) Considerations.*** Reference Appendix A, [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1)

**1.14** ***Develop Technology Development Strategy (TDS) to Include Product Support.*** This is the primary planning document for technology containing all of the important elements necessary to accomplish development and transition of the technologies to the customers. Ensure TDS addresses product support capabilities, technical data, Reliability, Availability & Maintainability (RAM) program, System Lifecycle Integrity Management (SLIM), and alternatives to include Energy Efficiency and Alternate Fuels considerations. Per [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Encl 4, Table 3, a TDS is required for all acquisition programs. Reference Appendix A, [1.14 Develop Technology Development Strategy Checklist](#T1_14)

**1.15** ***Develop Initial Product Support Strategy in the Life Cycle Management Plan (LCMP).*** Utilize the Next Generation CLS [Contract Sustainment Support Guide (CSSG)](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=11621638&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) for proven best practices in developing product support strategies. Reference Appendix A, [1.15 Initial Product Support Strategy in LCMP Checklist](#T1_15)

**1.15.1 *Review Requirements Documents / Initial Capability Document (ICD).***

**1.15.1.1 *Review unique munitions acquisition activities.*** Reference Appendix A, [1.15.1.1 Unique Munitions Acquisition Activities Checklist.](#T1_15_1_1)

**1.15.2 *Review strategies for similar products / strategies.***

**1.15.3 *Develop Alternatives for Product Support Strategy.***

**1.15.4 *Conduct risk assessment for alternatives.***

**1.15.5 *Develop Cost Estimate for alternatives.*** Cost estimates should include all phases of the program including development, procurement, and operating and sustainment costs. Cost estimates should be based on the best available estimating methodologies using a parametric, analogy, or bottoms-up approach. Create a work-breakdown structure to ensure your cost estimate covers all applicable costs. The Air Force Total Ownership Cost (AFTOC) database is a good starting point for cost estimates. Ensure that cost estimates actually look at the comparative people costs of the various alternatives. This should be expanded to correctly capture the CARD or other similar document and ensure that the full costs are considered. The use of LCOM or similar data to run Manpower Personnel & Training (MPT) analyses for various maintenance / support concepts can be very effective in driving the design rather than reacting to it.

**1.15.6 *Edit and coordinate writing of Life Cycle Management Plan (LCMP).***

**1.15.7 *Review entire LCMP for disconnects.***

**1.15.8 *Approve Product Support Strategy(s) (Acquisition Strategy Panel (ASP).***

**1.15.9 *Finalize LCMP based on ASP recommendations.***

**1.16** ***Ensure Supportability in Program Management / Expectation Management Agreements (PMA/EMAs).*** Reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16)

**1.17** ***Include Supportability in the Source Selection Plan (SSP).***Reference Appendix A, [1.17 Include Supportability in SSP Checklist](#T1_17)

**1.18** ***Participate in the Acquisition Strategy Review.***

**1.19** ***Complete Acquisition Strategy Plan (ASP) Supportability Template.*** The ASP briefing template provides an idea of the types of information SAF/AQ will expect to be addressed to include Human System Integration & Environment, Safety, and Occupational Health. The template can be adjusted as necessary to meet unique program information and technical data requirements. The product support strategy is part of the template to address sources of repair and supply, performance based logistics, Product Support KPP compliance, etc. For guidance on ASPs see the Acquisition Excellence and Change Office (SAF/AECO). [Link to ASP template](https://www.my.af.mil/gcss-af/USAF/ep/browse.do?programId=t6925EC2D4C750FB5E044080020E329A9&channelPageId=s6925EC13430A0FB5E044080020E329A9) Services acquisition strategy templates are found at: [AFPEO/CM CoP](https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-AQ-AF-25)

**1.20** ***Include Supportability Requirements in Request for Proposal (RFP).***Reference Appendix A, [1.20 Include Supportability Requirements in RFP Checklist](#T1_20) and [2.50.1 Manage Technical Order Acquisition Program Checklist](#T2_50_1).

**1.21** ***Include Data and Data Rights in the Request for Proposal (RFP).*** The AF should request all of the data and data rights entitled through contractual requirements or government funding of development of the part or system. The contractor will need to provide a matrix identifying all data rights that they assert. The burden of proof that the contractor is allowed to retain rights to data is now on the contractor per [10 USC 2320](http://www.gpoaccess.gov/uscode/index.html) & [10 USC 2321](http://www.gpoaccess.gov/uscode/index.html). The contractor may want to offer up rights that they could otherwise retain to enhance their position during source selection. The actual rights received by the Air Force will result from negotiations.  All ACAT I and ACAT II programs, regardless of planned sustainment approach shall assess the long-term technical data needs (including product definition, operations, maintenance, installation and training data) and reflect that assessment in the Technical Data Rights Strategy. For the acquisition of engineering data reference [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/html/500002.htm) Enclosure 12. Also see [Product Data Acquisition (PDAQ) Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM) on PDAQ web page. Reference Appendix A, [1.20 Include Supportability Requirements in RFP Checklist](#T1_20)

**1.21.1** ***Review*** [***Berry Amendment***](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+10USC2533) ***For Application To Your Program And Ensure Compliance in All Contracting Actions.***

**1.21.2** ***Include options for* *Radio-frequency identification (RFID) in the Request for Proposal (RFP).*** RFID is an automatic identification method, relying on storing and remotely retrieving data using devices called RFID tags or transponders. A significant thrust in RFID use is in enterprise supply chain management, improving the efficiency of inventory tracking and management. Ensure that provisions for RFID are considered for inclusion in the RFP.

**1.21.3** ***Include options for Item* *Unique Identification (IUID)*** ***in the Request for Proposal (RFP).*** IUID isthe set of data for tangible assets that is globally unique and unambiguous and ensures data integrity and data quality throughout life, and supports multi-faceted business applications and users. Ensure that provisions for IUID marking are included in the RFP to include marking of Support Equipment/Automatic Test Systems. IUID is integral to completion of program requirements for the Military Equipment Program Valuation (MEPV).

**1.21.4** ***Define Contractor Supported Weapon System (CSWS) Data Requirements.*** Reference Appendix A, [1.21.4 Define CSWS Data Requirements Checklist](#T1_21_4)

**1.22** ***Participate in Risk Management*.** A risk management approach for use in the acquisition of new systems, end-items, and equipment based upon four attributes: risk management planning, risk assessment, risk mitigation, and risk management control. When properly implemented, an effective risk management program facilitates identification of areas that require special attention and sets realistic, executable technical, schedule, and cost objectives. Risk Management is applicable to all phases and aspects of any acquisition or modernization program. The logistician needs to be included on the team to ensure consideration of product support to include the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*, Producibility, Intelligence, Interoperability, Corrosion Control, and Reliability, Availability, Maintainability and Cost (RAM-C), System Lifecycle Integrity Management (SLIM), Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient & occupational), Alternate Fuels considerations and lifecycle support costs are addressed during cost, schedule, and technical performance risk assessments. These risk assessments must address adverse impacts on warfighters capabilities to operate, maintain and support the system in an effective and safe manner. Consideration must also be given to reclamation, demilitarization and disposal. Reference [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) *Guide to Acquisition & Sustainment Life Cycle Management* Chap 12 and Appendix A [2.46 Participate in Integrated Baseline Review (IBR) Checklist](#T2_46)

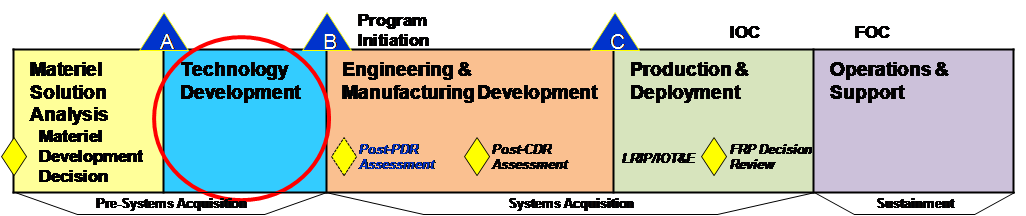
**1.23** ***Include Logistics Activities in the Integrated Master Plan/Integrated Master Schedule (IMP/IMS).*** Reference Appendix A, [1.23 Include Product Support Activities in the IMP/IMS Checklist](#T1_23)

**1.24** ***Participate in Source Selection.***

**1.25** ***Ensure Cost Estimates Include Life Cycle Support Costs****.* Reference Appendix A, [1.25 Ensure Cost Estimate Includes all support Costs Checklist.](#T1_25)

**1.26** ***Prepare Documentation Required for Milestone A.*** Per [10 USC 2366A](http://www.gpoaccess.gov/uscode/index.html), the MDA must provide a signed certification memorandum for record prior to Milestone A approval. Reference Appendix A, [1.26 Prepare Documentation for Milestone A Checklist](#T1_26). NOTE: A favorable Milestone A decision does not mean a new acquisition program has been initiated. Program initiation normally begins at Milestone B.

**Technology Development**

The purpose of this phase is to reduce technology risk and mature the appropriate set of technologies to be integrated into a full system, and to demonstrate Critical Technology Elements (CTEs) on prototypes. Technology Development is a continuous technology discovery and development process reflecting close collaboration between the Science and Technology community, the user, and the system developer. It is an iterative process designed to assess the viability of technologies while simultaneously refining user requirements. Following the Materiel Development Decision (MDD), the MDA may authorize entry into the acquisition management system at any point consistent with phase-specific entrance criteria and statutory requirements. For efforts that enter at Milestone A, ensure coverage of tasks in the previous chapter. 

**Task Description**

**2.01** ***Verify the Mission Assignment Decision for Acquisition and Sustainment management*.** Mission assignment is the designation of the product and logistics centers that will be responsible for acquisition and sustainment management of a weapon system or program. Mission assignment designates initial assignments, realignments, mission transfers, terminations, rescissions, and disposal of weapon systems, support systems, technology groupings, Federal Supply Classification (FSC) items, special programs, and special projects. It is critical the logistician become involved in the mission assignment to determine work loading. Designate the Air Logistics Center (ALC) office including the Defense Logistics Agency (DLA) for Packaging, Handling, Storage, & Transportation and Asset Marking to include Item Unique Identification (IUID) requirements. The process to identify the candidate depot is done at step 2.04. Prior to program initiation contact HQ AFMC/A8/9 to ensure the mission assignment process is started.

**2.02** ***Ensure Adequate Logistic Resources are Considered and Assigned for the Program*.** Ensure a logistician is assigned and considers all 12 Product Support elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*. IAW AFI 63-101, a Product Support Manager (PSM) should be assigned.

**2.02.1** ***Establish a Technical Order (T.O.) Acquisition Program*** Reference Appendix A, [2.02.1 Establishing a T.O. Acquisition Program Checklist](#T2_02_1).

**2.02.2** ***Assign Technical Order Manager.***

**2.03** ***Ensure Adequate Intelligence Resources are Considered and Assigned for the Program*.** Ensure an Intelligence professional is assigned and considers all Intelligence Supportability elements. Reference Appendix A, [1.04 Accomplish Intelligence Integration throughout the Life Cycle Checklist.](#T1_04)

**2.04** ***Initiate the Depot Source of Repair Process (DSOR) and the Depot Maintenance Interservicing (DMI).*** The DSOR process consists of Strategic Source of Repair (SSOR) (if applicable), Source of Repair Assignment Process (SORAP), and DMI. DSOR is the primary method by which depot maintenance posturing decisions for both hardware and software are made. It applies to both new acquisition and fielded programs. DMI is to determine if a DOD depot repair capability already exists (Army, Navy, or Marines). DMI support shall be utilized and provided to the maximum extent possible commensurate with effective support to operational forces and efficient utilization of the Services' depot maintenance resources. All weapon systems, end items, support equipment requiring depot level repairs and their components that require or are planned for depot level maintenance require a DSOR analysis be completed per [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) *Acquisition & Sustainment Life Cycle Management*. Funds shall not be committed to facilitate a specific site for depot maintenance prior to the DMI study. Reference Appendix A, [2.04 Initiate the DSOR Process Checklist](#T2_04)

**2.05** ***Determine the core & assignment Candidate Depot.*** Although this is part of the DSOR process outlined in task 2.04, it is critical and is necessary for Title 10 compliance. Core is the organic depot capability required to assure mission support for weapon systems designated for fulfilling strategic and contingency plans. Core is a legislative requirement. [10 USC 2464](http://www.gpoaccess.gov/uscode/index.html), states the DOD will retain a logistic capability of technical competencies and resources to meet national defense situations. Workloads are used to retain the capability. The amount of organic capability retained is dependent on the risk results – low risk, less organic; high risk, more organic. Core is identified as direct labor hours for each technology. Core exists to reduce risk for operational forces. Core requires government facilities, government equipment and government people.

**2.06** ***Establish the Depot Maintenance Activation Working Group (DMAWG) Team.*** Reference Appendix A, [2.06 Establish DMAWG Team Checklist](#T2_06)

**2.06.1** ***Establish Periodic Logistics Planning Meetings.*** The purpose is to coordinate and plan logistics management to ensure supportability of developed and fielded systems with all stakeholders. Logistics management reviews may be done in conjunction with program reviews.

**2.07** ***Award the Technology Development Contract.***

**2.07.1** ***Ensure Weapon System Program Complies with Air Force Policy for no new Management Information System Development without AF/CIO Approval.*** This excludes Mission Critical Computer Resources (MCCR) and National Security Systems. Review LogEA CONOPS for compliance with architecture – creation of Architecture View 1 document may be required. Reference [AFPD 33-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD33-1.pdf), *Information Resource Management* and [AFI 33-141](http://www.e-publishing.af.mil/shared/media/epubs/AFI33-141.pdf) *AF IT Portfolio Management and IT Investment Review* Para 1.5

**2.08** ***Ensure Supportability in the Program Management / Expectation Management Agreements (PMA/EMAs).*** Reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16)

**2.09** ***Initiate Supportability Reporting Template for Program Executive Officer (PEO) Reviews.*** The Portfolio Review is the culmination of a review process that starts at the program level, continues through the Wing/Direct Reporting Group (DRG) and PEO levels, and culminates in a presentation to SAF/AQ, AFMC/CC, and AF/A4. The most detail will be provided at the Wing/DRG level, with summary data and significant issues only briefed at the PEO and SAF/AQ, AFMC/CC, AF/A4 levels. The Supportability Quad chart provides a summary of supportability/sustainment planning activities to include: major players, transfer eligibility, sustainment funding, and overall Supportability element status (i.e. Support Equipment status, and issues). Review LogEA CONOPS for compliance with architecture – creation of Architecture View 1 document may be required.

**2.10** ***Participate in Operational Site Reviews.*** Operational site reviews are conducted for any or all of the following purposes: (1) To determine the feasibility of a location for planned operations, (2) To validate information about the 12 Product Support elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*, terrain, host nation resources, infrastructure, personnel, compatibility, Operational environmental considerations, Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient & occupational), Alternate Fuels considerations, habitability, survivability (personnel & equipment), force protection etc, (3) To gather critical information for future operations and facilitate planning for the eventual use of a location, and (4) To gather critical information for future Manpower and Personnel requirements (Manpower Estimating Requirements (MER)). Ensure Intelligence and program protection requirements are considered. Reference Appendix A, [2.10 Facilities Concept Checklist](#T2_10) and [2.10.1 Determine Manpower and Personnel Requirements Checklist](#T2_10_1)

**2.10.1** ***Determine Manpower and Personnel Requirements .*** The logistician must ensure through contact with the MAJCOM, Gaining Base Civil Engineers and Communications and Information Systems Officer (CSO), Product Centers and Air Logistics Centers that manpower and personnel considerations are appropriately documented. Reference Appendix A, [2.10.1 Determine Manpower and Personnel Requirements Checklist](#T2_10_1)

**2.10.2** ***Address National Environmental Policy Act (NEPA) requirements.*** , To ensure compliance with the National Environmental Policy Act (NEPA) of 1969 ([42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)). NEPA requires federal agencies to consider the environmental impacts of their proposed action as part of an agency’s overall planning and decision making. Federal agencies are required to cooperate with federal, state, and local governments and other concerned public and private organizations and citizens during their planning. NEPA ensures that the potential physical, biological, economic and social effects on the quality of the human environment are considered. Reference Appendix A, [2.10.2 Address NEPA Requirements Checklist](#T2_10_2)

**2.11** ***Define and Implement Military Construction (MILCON) and Sustainment Restoration Modernization (SRM) Requirements.*** Based upon facility requirements.Reference Appendix A, [2.11 Define and Implement MILCON Requirements Checklist](#T2_11)

**2.12** ***Include Supportability in Defense Contract Management Agency (DCMA) Memorandum of Agreement (MOA).*** MOA is similar in concept to PMA/EMA; reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16)

**2.13** ***Review the Integrated Master Plan/Integrated Master Schedule (IMP/IMS).*** Reference Appendix A, [1.23 Include Product Support Activities in the IMP/IMS Checklist](#T1_23)

**2.14** ***Participate in Risk Management.*** A risk management approach for use in the acquisition of new systems, end-items, and equipment is based upon four attributes: risk management planning, risk assessment, risk mitigation, and risk management control. When properly implemented, an effective risk management program facilitates identification of areas that require special attention and sets realistic, executable technical, schedule, operational and cost objectives. Risk Management is applicable to all phases and aspects of any acquisition or modernization program. The logistician needs to ensure the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* are addressed during cost, schedule, and technical performance risk assessments. Product Support areas that must be considered are: Reliability, Availability, Maintainability & Cost (RAM-C) & System Lifecycle Integrity Management (SLIM) Analyses, Intelligence, Maintenance Planning & Management, Energy Efficiency, HSI (Manpower, Personnel, Training, Human Factors, Engineering, Survivability, Habitability, Environment, Safety & Occupational Health (ESOH) Noise (ambient & occupational), Alternate Fuels considerations, Life Cycle Support Cost Estimates and Budgeting. These risk assessments must address adverse impacts on warfighters’ capabilities to operate, maintain and support the system in an effective and safe manner. Consideration must also be given to reclamation, demilitarization and disposal. Reference [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) *Guide to Acquisition & Sustainment Life Cycle Management* Chap 12 and Appendix A [2.46 Participate in Integrated Baseline Review (IBR) Checklist](#T2_46)

**2.15** ***Participate in Contract Oversight and Review.***

**2.16** ***Advocate the Proposed Logistics Engineering Design Changes and Trade Studies (Non-Development Item (NDI)), Corrosion, Hazardous Material, Precious Metals,*** [***and BERRY Amendment***](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+10USC2533)***.*** Trade studies are iterative studies performed to evaluate and validate concepts representing new technologies, design alternatives, design simplification, logistics alternatives and compatibility with the production process. The logistician needs to be included to ensure product support is addressed in proposed design changes and trade studies and documented. The logistician must consider the life cycle support implications of System Design that affect the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* to include Diminishing Manufacturing Sources and Material Shortages (DMSMS), and hazardous material.

**2.16.1 *Participate in / verify Engineering Design Changes and Trade Studies to ensure they capture lowest total cost of ownership while achieving required performance.***

**2.16.2 *Participate in / verify Engineering Design Changes and Trade Studies consider production and operational support as part of the study.***

**2.16.3 *Participate in / verify Engineering Design Changes and Trade Studies include sensitivity analyses of key performance and support parameters.***

**2.16.4 *Participate in / verify Engineering Design Changes and Trade Studies are conducted on a continuous basis to ensure performance and supportability goals are met.***

**2.16.5** ***Consider the Life Cycle Implications of Technical Orders and other Technical Data.***

**2.17** ***Evaluate the Technology Demonstration for Supportability.*** The demonstration evaluation criteria will ensure product success during the demonstration of the products. There is no formal format to use for documenting the criteria. The draft CDD includes data from key performance parameters, system threat assessment, and measures of effectiveness/performance; it will provide the basis for evaluation criteria. Ensure Reliability, Availability, Maintainability & Cost (RAM-C) & System Lifecycle Integrity Management (SLIM) requirements, Interoperability, Producibility, Item Unique Identification (IUID), Radio Frequency Identification (RFID, if applicable), System Accreditation, Life Cycle Support Cost Estimates, Budgeting, usability and / or accessibility, and the implications of the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* to include Diminishing Manufacturing Sources and Material Shortages (DMSMS) are considered in the evaluation and identified as KPPs in the CDD. Ensure Environment, Safety & Occupational Health (ESOH) considerations are addressed during the technology demonstration. Reference Appendix A, [1.09.1 Address Environmental Safety & Occupational Health Checklist](#T1_09_1)

**2.17.1** ***Contact Air Transportability Test Load Agency (ATTLA) for Air Transportability requirements.*** Air drop and test loading i.e. G-force, HAZMAT.

**2.17.2** ***Address Human Systems Integration (HSI) Considerations.*** Reference Appendix A, [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1).

**2.17.3** ***Address Environmental Safety and Occupational Health (ESOH) issues.*** Reference Appendix A, [1.09.1 Address Environmental Safety & Occupational Health Checklist](#T1_09_1)

**2.18** ***Refine the Supportability Objectives.***The Product Support Manager (PSM) will review and modify as necessary. Reference Appendix A, [2.18 Refine Supportability Objective Checklist](#T2_18) and [1.03 Define Supportability Objectives Checklist](#T1_03)

**2.18.1** ***Consider Application of Modeling, Simulation, and Analysis Tools***. Reference Appendix A, [2.18.1 Consider application of modeling, simulation and analysis tools Checklist](#T2_18_1).

**2.18.2** ***Refine System Lifecycle Integrity Management (SLIM) Requirements.*** Reference Appendix A, [2.37.12 Implement SLIM Processes and Programs Checklist](#T2_37_12)

**2.19** ***Review the Test & Evaluation (T&E) Strategy for Support Considerations.*** The test and evaluation strategy is a broader view of the risk reduction efforts across the range of test activities that will ultimately produce a valid evaluation of operational effectiveness, suitability, and survivability before full-rate production and deployment. Over time the TES will evolve into the Test and Evaluation Master Plan (TEMP) due at Milestone B. The PSM should review the TES and TEMP. Ensure product support capabilities and alternatives that include the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*, Reliability, Availability, Maintainability & Cost (RAM-C) & System Lifecycle Integrity Management (SLIM) requirements, HSI, usability and / or accessibility, Intelligence, Interoperability, Producibility, Maintenance Planning, Item Unique Identification (IUID), Radio Frequency Identification (RFID), if applicable, Supply Support, System Accreditation, Life Cycle Support Cost Estimates, and Budgeting are addressed. Ensure resources are planned to support the logistics / supportability portions of the test.

**2.20** ***Participate in the System Engineering Plan (SEP) Development.*** The purpose of the SEP is to document the systems engineering planning effort guiding all technical aspects of the program. The SEP provides the overarching plan for bringing the hardware, software, and human sub-systems into an integrated System. The SEP is developed early in the materiel solution analysis phase and updated prior to each subsequent Milestone. It should incorporate the planning that is consistent with Technology Readiness Assessment and successfully execute the Technology Development Strategy. It should be a living document, tailored to the program and should serve as a roadmap to support program management by defining comprehensive system engineering activities, addressing both government and contractor technical activities and responsibilities. Ensure HSI planning is documented in the SEP. Ensure Intelligence is integrated into systems engineering process, as applicable. Review LogEA CONOPS for compliance with architecture – creation of System View document may be required. The logistician needs to be included on the team to ensure Reliability, Availability, Maintainability and Cost (RAM-C), System Lifecycle Integrity Management (SLIM), and other product support factors are addressed during engineering analysis and documented in the plan. Item Unique Identification (IUID) implementation plan will be included in the SEP. See [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf), *Guide to Acquisition & Sustainment Life Cycle Management*. Reference Appendix A, [1.13 SEP Checklist](#T1_13) and [2.37.12 Implement SLIM Processes and Programs Checklist](#T2_37_12)

**2.20.1 *Address Human Systems Integration (HSI) Considerations.*** Reference Appendix A, [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1)

**2.21** ***Participate in the Computer Resources Working Group (CRWG) or the Computer Resources Integrated Product Team (CR-IPT).*** The CRWG (also known as the CR-IPT) is responsible for the development and sustainment of the Computer Resource Life Cycle Management Plan (CRLCMP). Because of the complexity in software driven systems, rapid technology changes, and new net-centric policies, the Life Cycle Management Planning for software driven systems is usually segregated as its own component. This is not a requirement but it is considered best practice and utilized on most Weapon Systems. The logistician must recognize that software driven systems require extensive user involvement, an early start, many spirals, long logistics trails, have traditionally been difficult to complete on time and on budget during their development, and require at times a three year technology refresh cycle to ensure that expertise, software tools, and net centric integration meets current requirements. It is very rare that Commercial Off-the-Shelf (COTS) solutions fully integrate into any weapon system. Any use of COTS, will require a 3 to 5 year technology refresh and expertise of the technology and the current system. Also consider that technology refresh on weapon systems do not occur across the entire system at the same rate. Integrating new technologies and/or incorporation of new capabilities in a current system that must seamlessly work with older and existing technologies is extremely complex. Once fielded, software systems can have bugs but rarely do they break. However, mission profiles can quickly change which in turn requires software systems to make modifications to support the user. Because of the expense, the temptation is to do quick “patches” in the software without ensuring that appropriate testing (including user acceptance), documentation, and configuration control is completed. Logisticians must ensure that disciplined systems engineering practices and solid configuration control are followed throughout the entire life cycle. Contractors or organic support that are certified at a Capability Maturity Model Integrated (CMMI) Level 3, (Level 5 preferred) should give the logistician confidence that a disciplined systems engineering approach and configuration controls are being adequately addressed. Reference Appendix A, [2.21 Participate in the CRWG or the CR-IPT Checklist.](#T2_21)

**2.22** ***Incorporate Supportability Requirements in Draft Capability Development Document (CDD).*** The CDD provides the operational performance attributes, including Key Performance Parameters, necessary for the acquisition community to design a proposed system(s) and establish a program baseline. Each increment must provide an operationally effective, suitable and useful capability in the intended mission environment that is commensurate with the investment, and independent of any subsequent increment. The CDD shall be updated or appended for each Milestone B decision and addresses a single system or System of System only. Human Systems Integration (HSI), (see [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 28), provides an integrating process to address the human considerations in the CDD. The Logistician should work to ensure OSD mandated KPP/KSAs and metrics (See [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)), Reliability, Availability, Maintainability & Cost (RAM-C) & System Lifecycle Integrity Management (SLIM) requirements, Intelligence, Interoperability, Producibility, Maintenance Planning, Item Unique Identification (IUID), Radio Frequency Identification (RFID) , if applicable, Diminishing Manufacturing Sources and Material Shortages (DMSMS), System Accreditation, Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient & occupational), Alternate Fuels considerations, Life Cycle Support Cost Estimates, Budgeting, and the impact of the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition* *& Sustainment Life Cycle Management* to include Calibration Issues are included as KPPs in the CDD. Reference Appendix A, [2.22 CDD Checklist](#T2_22).

**2.23** ***Develop Supportability Key Performance Parameters.*** Reference Appendix A, [2.23 Develop Supportability KPPs Checklist](#T2_23).

**2.24** ***Include the supportability requirements in the system performance Specification****.* Based upon the results of the verification of components, functionality, and system performance, a System Performance Specification should be created. Trade-offs of achievable performance should be complete and captured in the Systems Specification. Critical and/or enabling technologies should have demonstrated adequate maturity (including Support Equipment) to achieve acceptable levels of risk. The System Performance Specification shall include requirements for Reliability, Availability, Maintainability & Cost (RAM-C), System Lifecycle Integrity Management (SLIM), Intelligence, Interoperability, Producibility, HSI, Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient & occupational), Alternate Fuels consideration and Item Unique Identification (IUID). The System Performance Specification serves as the guiding technical requirement for the system development effort. Review LogEA CONOPS for compliance with architecture.

**2.24.1** ***Ensure Consideration of* *Design Interface for Life Cycle Logistics.*** ReferenceAppendix A, [2.24.1 Design Interface Checklist](#T2_24_1) and [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1) to support the design interfaces

**2.25** ***Include the supportability requirements in the Cost Analysis Requirements Description (CARD), Program Office Estimate (POE), Component Cost Analysis (CCA), Independent Cost Estimate (ICE), and Affordability Assessment.*** Reference Appendix A, [2.25 Include Supportability Requirements in the CARD, POE, CCA, ICE, Affordability Assessment Checklist](#T2_25).

**2.25.1** ***Include Support Equipment (SE) in Life Cycle Cost Documents Including Replacement Costs.***

**2.26** ***Initiate the Strategic Source of Repair (SSOR) Process.*** When a DSOR decision cannot be accomplished for program initiation approval (MS B), HQ AFMC will accomplish an SSOR determination. The SSOR determination is based on the best available information during the Technology Development Phase or during the first applicable acquisition phase.

The SSOR determination identifies anticipated SORs early in the acquisition process so that planning and programming documents, and resulting contracts, contain the appropriate sustainment elements needed to support the acquisition strategy. The determination will also support Core & 50/50 requirements, mission assignment, and guide the DSOR initiator in accomplishing timely and efficient product support activities needed for operational capability. The documentation submitted for a DSOR, for both SORAP and DMI decisions, is used for making a SSOR determination with the understanding that the level of information is not sufficient to make a full DSOR decision.

HQ AFMC determines the need for an SSOR within 90 days from submittal of the DSOR package. If an SSOR determination is required, HQ AFMC will provide the documented approved SSOR determination at least 45 days prior to the MS B, or program inception decision. Reference Tasks 2.40 and 2.41. Reference Appendix A, [2.04 Initiate the DSOR Process Checklist](#T2_04).

**2.27** ***Include Supportability in the Acquisition Program Baseline (APB).*** Reference Appendix A, [2.27 Include Supportability in the APB Checklist](#T2_27).

**2.28** ***Include Supportability Requirements in the Program Objective Memorandum (POM) Submission.*** The POM has 2 parts; “Pay” and “Non-Pay”, ensure Manpower requirements are included in the “Pay” portion of the POM. Reference Appendix A, [2.28 Include Supportability Requirements in POM submission Checklist](#T2_28), [2.10.1 Determine Manpower and Personnel Requirements Checklist](#T2_10_1) and [2.11 Define and Implement MILCON Requirements Checklist](#T2_11).

**2.29** ***Refine the Product Support Strategy in the Life-cycle Management Plan (LCMP).***Utilize the Next Generation CLS [Contract Sustainment Support Guide (CSSG)](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=11621638&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) for proven best practices in developing product support strategies. Reference Appendix A, [2.29 Refine Product Support Strategy in the LCMP Checklist](#T2_29).

**2.29.1** ***Review Requirement Document / Capability Development Document (CDD).***

**2.29.1.1 *Review Unique Munitions Acquisition Activities.*** Reference Appendix A, [1.15.1.1 Unique Munitions Acquisition Activities Checklist.](#T1_15_1_1)

**2.29.2** ***Review Strategies for Similar Products / Strategies.***

**2.29.3** ***Refine Alternative(s) for Product Support Strategy.***

**2.29.4** ***Update Risk Assessment for Alternative(s).***

**2.29.5** ***Update Cost Estimate for Alternative(s).*** Ensure that cost estimates actually look at the comparative people costs of the various alternatives. This should be expanded to correctly capture the CARD or other similar document and ensure that the full costs are considered. The use of LCOM or similar data to run MPT analysis for various maintenance / support concepts can be very effective in driving the design rather than reacting to it.

**2.29.****6 *Ensure summary of Programmatic Environmental Safety and Health Evaluations (PESHE) is included in LCMP***

**2.29.7** ***Review Entire LCMP for Disconnects.***

**2.29.****8 *Approve Product Support Strategy (Acquisition Strategy Panel (ASP)).***

**2.29.****9 *Update LCMP based on System Requirements Review (SRR) and ASP Recommendations.***

**2.30** ***Ensure that supportability is included in the Program Management / Expectation Management Agreements (PMA/EMAs).*** Reference Appendix A, [1.16 Ensure Supportability included in PMA/EMAs Checklist](#T1_16).

**2.31** ***Ensure Supportability Requirements are included in Capability Development Document (CDD)*.** The CDD provides the operational performance attributes, including Key Performance Parameters necessary for the acquisition community to design a proposed system(s) and establish a program baseline. Reference Appendix A, [2.22 CDD Checklist](#T2_22).

**2.32** ***Include Supportability in the Source Selection Plan (SSP).*** Reference Appendix A, [1.17 Include Supportability in the SSP Checklist](#T1_17).

**2.33** ***Complete Acquisition Strategy Panel (ASP) Supportability Template.*** The ASP briefing template provides an idea of the types of information SAF/AQ will expect to be addressed to include Human System Integration & Environment, Safety, and Occupational Health. The template can be adjusted as necessary to meet unique program information requirements. The product support strategy is part of the template to address sources of repair and supply, performance based logistics, and product support KPPs etc. For guidance on ASPs see the Acquisition Excellence and Change Office (SAF/AECO). [Link to ASP template](https://www.my.af.mil/gcss-af/USAF/ep/browse.do?programId=t6925EC2D4C750FB5E044080020E329A9&channelPageId=s6925EC13430A0FB5E044080020E329A9). Services acquisition strategy templates are found at: [AFPEO/CM CoP](https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-AQ-AF-25)

**2.34** ***Participate in the Analysis of Alternatives (AOA) Update.*** Reference Appendix A, [1.06 Analysis of Alternative Checklist](#T1_06).

**2.35** ***Participate in the System Requirements Review (SRR) (Demo Concepts).*** Reference Appendix A, [2.35 Participate in SRR Checklist](#T2_35) (Demo Concepts) .

**2.36** ***Refine Supportability Requirements in the System Performance Specification.***

**2.37** ***Include supportability requirements in the Request For Proposal (RFP).*** Reference Appendix A, [1.20 Include Supportability Requirements in RFP Checklist](#T1_20), [2.02.1 Establishing a T.O. Acquisition Program Checklist](#T2_02_1), [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1) and [2.37 PHS&T Checklist](#T2_37).

**2.37.1** ***Develop and Acquire Supportability Data*** Reference Appendix A, [2.37.1 Develop and Acquire Supportability Data Checklist](#T2_37_1).

**2.37.2** ***Address Automated Test Systems (ATS) Acquisition*.** Reference Appendix A, [2.37.2 Address Automated Test Systems (ATS) Acquisition Checklist](#T2_37_2).

**2.37.3** ***Address Support Equipment (SE) Management.*** Reference Appendix A, [2.37.3 Address Support Equipment Management Checklist](#T2_37_3).

**2.37.4** ***Address* *Calibration Support for new Acquisitions.*** Reference Appendix A, [2.37.4 Calibration Support for new Acquisitions Checklist](#T2_37_4).

**2.37.5** ***Provide Recommended Support Equipment (SE) Contract Data Requirements List (CDRL).***

**2.37.6** ***Review Support Equipment Recommendation Data (SERD).*** Reference Appendix A, [2.37.6 Support Equipment Recommendation Data (SERD) Checklist](#T2_37_6).

**2.37.7** ***Develop a Technical Order Data Request for Proposal (RFP) Including the Technical Manual Contract Requirements (TMCR) Document, TM-86-01.***

**2.37.8** ***Develop Technical Order Management Plan (TOMP).***

**2.37.9** ***Involve Gaining Air Logistics Center, Using Command and Safety.***

**2.37.10** ***Perform Supportability Analyses To Achieve Performance-Based Logistics (DODD 5000.01 E1.1.17) and System Engineering Analyses Which Will Minimize Total Ownership Costs While Delivering Required Mission Capability.***  Early consideration of HSI will assist in optimizing total system performance and minimizing total ownership cost. Reference Appendix A, [2.37.12 Implement SLIM Processes and Programs Checklist](#T2_37_12) and [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1).

**2.37.11** ***Performance-Based Logistics Strategy.*** The PM shall identify operational capability oriented measurable sustainment requirements to be tracked during operations. These shall be the basis of measures of success for the product support integrator who shall be identified by organization at Milestone B. These shall be developed in a draft product support agreement which will be negotiated with the O&S Program Management / Expectation Management Agreement. The product support agreement shall be drafted in preparation for the Milestone B decision. Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required.

**2.37.12** ***Implement System Lifecycle Integrity Management (SLIM) Processes and Programs*** (i.e. Weapon System Integrity Programs (WSIP), Condition Based Maintenance Plus (CBM+), Reliability Centered Maintenance (RCM)) Reference Appendix A, [2.37.12 Implement SLIM Processes and Programs Checklist](#T2_37_12).

**2.37.13** ***Develop a Diminishing Manufacturing Sources and Material Shortages (DMSMS) Program.*** Reference Appendix A, [2.37.13 Develop a DMSMS Program Checklist](#T2_37_13).

**2.37.14** ***Develop Supply Support Strategy.*** Reference Appendix A, [2.37.14 Develop Supply Support Strategy Checklist](#T2_37_14) Ensure inclusion in the Life Cycle Management Plan (LCMP).

**2.37.15** ***Address the need for CDRLs including a* *Facilities Requirements Plan in the Request For Proposal (RFP)*** Reference Appendix A, [2.37.15 CDRLs Checklist](#T2_37_15).

**2.37.16** ***Address Maintenance Planning*.**

**2.38** ***Include Data and Data Rights in the Request For Proposal (RFP).*** The AF should request all of the data and data rights entitled through contractual requirements or government funding of development of the part or system. The contractor will need to provide a matrix identifying all data rights that they assert. The burden of proof that the contractor is allowed to retain rights to data is now on the contractor per [10 USC 2320](http://www.gpoaccess.gov/uscode/index.html) & [10 USC 2321](http://www.gpoaccess.gov/uscode/index.html). The contractor may want to offer up rights that they could otherwise retain to enhance their position during source selection. The actual rights received by the Air Force will result from negotiations.  All ACAT I and ACAT II programs, regardless of planned sustainment approach shall assess the long-term technical data needs (including product definition, operations, maintenance, installation and training data) and reflect that assessment in the Technical Data Rights Strategy. For the acquisition of engineering data reference [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/html/500002.htm) Enclosure 12. Also see [Product Data Acquisition (PDAQ) Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM) on PDAQ web page. Reference Appendix A, [1.20 Include Supportability Requirements in RFP Checklist](#T1_20)

**2.38.1** ***Review*** [***Berry Amendment***](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+10USC2533) ***for application to your program and ensure compliance in all contracting actions.***

**2.38.2** ***Include options for* *Radio-Frequency Identification (RFID) in the Request For Proposal (RFP).*** RFID is an automatic identification method, relying on storing and remotely retrieving data using devices called RFID tags or transponders. A significant thrust in RFID use is in enterprise supply chain management, improving the efficiency of inventory tracking and management. Ensure that provisions for RFID are considered for inclusion in the RFP.

**2.38.3** ***Include options for Item* *Unique Identification (IUID)*** ***in the Request For Proposal (RFP).*** IUID isthe set of data for tangible assets that is globally unique and unambiguous and ensures data integrity and data quality throughout life, and supports multi-faceted business applications and users. Ensure that provisions for IUID marking are included in the RFP to include marking of Support Equipment. IUID is integral to completion of program requirements for the Military Equipment Program Valuation (MEPV).

**2.38.4** ***Define Contractor Supported Weapon System (CSWS) Data Requirements.*** Reference Appendix A, [1.21.4 Define CSWS Data Requirements Checklist](#T1_21_4)

**2.39** ***Ensure completion of the Strategic Source of Repair (SSOR) Process.*** Ensure the SSOR determination includes: Identification of AF and/or other Services candidate depot(s) which possess the needed organic technical repair capability. A brief summary of the required Core capabilities, identification of Core capability gaps, organic workload needed, and why these organic workloads are necessary to alleviate the applicable identified Core gaps. Identification, from a strategic perspective, of workload projections (for hardware and software) required for 50/50 compliance and direction to the PM/PGM to plan for organic depot maintenance to satisfy the projections. A specific statement that stresses to the PM the requirement that the RFP include appropriate technical data rights clauses and necessary deliverables, or options for technical data and equipment deliverables required to support an organic SOR determination. The Logistician should ensure the SSOR specifically addresses the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*. Reference Appendix A, [2.04 Initiate the DSOR Process Checklist](#T2_04).

**2.40** ***Include Logistics Activities in the Integrated Master Plan/Integrated Master Schedule (IMP/IMS).*** Reference Appendix A, [1.23 Include Product Support Activities in the IMP/IMS Checklist](#T1_23).

**2.41** ***Participate in Source Selection.*** The Air Logistics Center (ALC) Product Support Integrator (PSI**)** will identifyALC membership requirements. If no ALC PSI is assigned, this responsibility rests with the Program Manager.

**2.42** ***Award Additional Technology Development Contract as required to accomplish tasks through Preliminary Design Review (PDR).*** Review LogEA CONOPS for compliance with architecture – creation of System/Technical View document may be required.

**2.42.1** ***Ensure Technology Development Program complies with Air Force Policy for no new Software System Development without AF/CIO approval.*** This excludes Mission Critical Computer Resources (MCCR) and National Security Systems. Reference [AFPD 33-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD33-1.pdf), *Information Resource Management* and [AFI 33-141](http://www.e-publishing.af.mil/shared/media/epubs/AFI33-141.pdf) *AF IT Portfolio Management and IT Investment Review* Para 1.5. Review LogEA CONOPS for compliance with architecture – creation of Operational / System / Technical View document may be required.

**2.43** ***Ensure Supportability is included in the Program Management / Expectation Management Agreements (PMA/EMAs).*** Reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16).

**2.44** ***Include Supportability Requirements in Defense Contract Management Agency (DCMA) Memorandum of Agreement (MOA).***MOA is similar in concept to PMA/EMA. Reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16).

**2.45** ***Review the Logistics Activities in the Integrated Master Plan/Integrated Master Schedule (IMP/IMS).*** Reference Appendix A, [1.23 Include Product Support Activities in the IMP/IMS Checklist](#T1_23).

**2.46** ***Participate in Risk Management.*** A risk management approach for use in the acquisition of new systems, end-items, and equipment based upon four attributes: risk management planning, risk assessment, risk mitigation, and risk management control. When properly implemented, an effective risk management program facilitates identification of areas that require special attention and sets realistic, executable technical, schedule, and cost objectives. Risk Management is applicable to all phases and aspects of any acquisition or modernization program. The logistician needs to ensure the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* are addressed during cost, schedule, and technical performance risk assessments. Product Support areas that must be considered are: Reliability, Availability, Maintainability & Cost (RAM-C) & System Lifecycle Integrity Management (SLIM) requirements, Intelligence, Interoperability, Producibility, Maintenance Planning, Item Unique Identification (IUID), Radio Frequency Identification (RFID) if applicable, System Accreditation, Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient & occupational), Alternate Fuels considerations, Life Cycle Support Cost Estimates and Budgeting. These risk assessments must address adverse impacts on warfighters capabilities to operate, maintain and support the system in an effective and safe manner. Consideration must also be given to reclamation, demilitarization and disposal. Reference [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) *Guide to Acquisition & Sustainment Life Cycle Management* Chap 12 and Appendix A [2.46 Participate in Integrated Baseline Review (IBR) Checklist](#T2_46) and [1.09.1 Address Environmental Safety & Occupational Health Checklist](#T1_09_1)

**2.47** ***Participate in Contract Oversight and Review.*** The logistician needs to participate in the Support Equipment Guidance Conference, understand the Deficiency Report (DR) process and participate in Configuration Control Boards (CCB).

**2.47.1** ***Accomplish Support Equipment (SE) Guidance Conference.*** Reference Appendix A, [2.47.1 Accomplish SE Guidance Conference Checklist](#T2_47_1).

**2.47.2** ***Participate in the Deficiency Report (DR) Process.*** A contractors DR database system is not a substitute for entering DRs in the government system. Reference Appendix A, [2.47.2 Provide Logistics Support During the DR Process Checklist](#T2_47_2).

**2.47.3** ***Participate in the Configuration Control Board (CCB).*** See [AFI 63-131](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-131.pdf) *Modification Program Management* and [MIL-HDBK-61A](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=202239) (SE) *Configuration Management Guidance.* Reference Appendix A, [2.47.3 Participate in the CCB Checklist](#T2_47_3) and [2.47.2 Provide Logistics Support During the DR Process Checklist](#T2_47_2).

**2.47.4** ***Accomplish Spares Provisioning Guidance Conference.*** Reference Appendix A, [2.47.4 Accomplish Spares Provisioning Guidance Conference Checklist](#T2_47_4).

**2.47.5** ***Establish Periodic Logistics Planning Meetings.*** The purpose is to coordinate and plan logistics management to ensure supportability of developed and fielded systems with all stakeholders. Logistics management reviews may be done in conjunction with program reviews.

**2.48** ***Advocate the Proposed Logistics Engineering Design Changes and Trade Studies (Non-Development Item (NDI)), Corrosion, Hazardous Material, Precious Metals,*** [***and BERRY Amendment***](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+10USC2533)***.*** Trade studies are iterative studies performed to evaluate and validate concepts representing new technologies, design alternatives, design simplification, logistics alternatives and compatibility with the production process. The logistician needs to be included to ensure product support is addressed in proposed design changes, trade studies and is documented. Ensure Support Equipment life cycle consideration is included in design change/trade studies. The Systems Engineering Assessment Model (SEAM) can be utilized when considering all design changes and trade studies. Ensure logistics considerations are included in Development Planning and Early System Engineering analyses (e.g. within Concept Characterization and Technical Descriptions); consider application of modeling, simulation and analysis tools to produce robust logistics inputs. Reference Appendix A, [2.18.1 Consider application of modeling, simulation and analysis tools Checklist](#T2_18_1).

**2.48.1 *Participate in / verify Engineering Design Changes and Trade Studies to ensure they capture lowest total cost of ownership while achieving required performance.***

**2.48.2 *Participate in / verify Engineering Design Changes and Trade Studies consider production and operational support as part of the study.***

**2.48.3 *Participate in / verify Engineering Design Changes and Trade Studies include sensitivity analyses of key performance and support parameters.***

**2.48.4 *Participate in / verify Engineering Design Changes and Trade Studies are conducted on a continuous basis to ensure performance and supportability goals are met.***

**2.48.****5 *Contact 403 SCMS for Fee-For-Service Packaging Support (For Development of Specialized Containers for testing).***

**2.48.6 *Consider the Life Cycle Implications of Technical Orders and other Technical Data.***

**2.49** ***Baseline Product Support (PS) Strategy in Life-Cycle Management Plan (LCMP).*** Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required. Reference Appendix A, [2.49 Baseline Product Support in LCMP Checklist](#T2_49).

**2.49.1** ***Review Requirement Document/Capability Development Document (CDD).***

**2.49.1.1 *Review Unique Munitions Acquisition Activities.*** Reference Appendix A, [1.15.1.1 Unique Munitions Acquisition Activities Checklist.](#T1_15_1_1)

**2.49.2** ***Review Strategies for similar Products/Strategies.***

**2.49.3** ***Refine Alternative for Product Support Strategy.***

**2.49.4** ***Update Risk Assessment for Alternative.***

**2.49.5** ***Update Cost Estimate for Alternative.*** Ensure that cost estimates actually look at the comparative people costs of the various alternatives. This should be expanded to correctly capture the CARD or other similar document and ensure that the full costs are considered. The use of LCOM or similar data to run MPT analysis for various maintenance / support concepts can be very effective in driving the design rather than reacting to it.

**2.49.****6 *Ensure summary of Programmatic Environmental Safety and Health Evaluations (PESHE) is included in LCMP.***

**2.49.****7 *Review entire LCMP for disconnects.***

**2.49.****8 *Approve Product Support Strategy (System Requirements Review (SRR).***

**2.49.****9 *Update LCMP based on Acquisition Strategy Panel (ASP) Recommendations.***

**2.50** ***Evaluate contractor delivered Data.*** Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required. Reference Appendix A, [2.50 Evaluate Contractor Delivered Data Checklist](#T2_50).

**2.50.1** ***Manage Technical Order Acquisition Program.***Reference Appendix A, [2.50.1 Manage T.O. Acquisition Program Checklist](#T2_50_1).

**2.50.1.1** ***Conduct Technical Order Guidance Conference.***

**2.50.1.2** ***Start Technical Order Development.***

**2.50.1.3** ***Conduct Technical Order In-Process Reviews (IPR)s.***

**2.50.1.4** ***Refine Technical Order Management Plan.***

**2.50.1.5** ***Finalize Technical Order Verification Plan (TOVP).***

**2.50.1.6** ***Review Pre-Pubs.***

**2.50.2** ***Evaluate Support Equipment Recommendation Data (SERD).*** Includes Peculiar & Common Support Equipment, TOs, Spares, Training, and Calibration Requirements, Reference Appendix A, [2.37.2 Address ATS Acquisition Checklist](#T2_37_2), [2.37.4 Calibration Support for new Acquisitions Checklist](#T2_37_4), and [2.37.6 SERD Checklist](#T2_37_6).

**2.50.3** ***Review Support Equipment Recommendation Data (SERD) for Depot Activation (DMAWG).***

**2.50.4** ***Establish And Manage Training Systems.*** Reference Appendix A, [2.50.4 Establish and Manage Training Systems Checklist](#T2_50_4).

**2.51** ***Identify and Plan Supportability Requirements for the Test & Evaluation Master Plan (TEMP).*** A logistics expert should participate in TEMP development to ensure the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* are addressed in relationship to testing. Ensure Intelligence support concept and technologies are included. Reference Appendix A, [2.51 Identify and Plan Supportability Requirements for the TEMP Checklist](#T2_51).

**2.52** ***Participate in the System Engineering Plan (SEP) update*.** The purpose of the SEP is to document the systems engineering planning effort guiding all technical aspects of the program. The SEP provides the overarching plan for bringing the hardware, software, and human sub-systems into an integrated System. The SEP is developed early in the materiel solution analysis phase and updated prior to each subsequent Milestone. It should incorporate the planning that is consistent with Technology Readiness Assessment and successfully execute the Technology Development Strategy. It should be a living document, tailored to the program and should serve as a roadmap to support program management by defining comprehensive system engineering activities, addressing both government and contractor technical activities and responsibilities. Ensure HSI planning is documented in the SEP. Ensure Intelligence is integrated into systems engineering process, as applicable. Review LogEA CONOPS for compliance with architecture – creation of System View document may be required. The logistician needs to be included on the team to ensure Reliability, Availability, Maintainability and Cost (RAM-C), System Lifecycle Integrity Management (SLIM), and the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* are addressed during engineering analysis and documented in the plan. Item Unique Identification (IUID) implementation plan will be included in the SEP. Ensure technical data requirements are addressed consistent with the Technical Data Rights Strategy in the Acquisition Strategy. See [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf), *Guide to Acquisition & Sustainment Life Cycle Management*. Reference Appendix A, [1.13 SEP Checklist](#T1_13) and [2.37.12 Implement SLIM Processes and Programs Checklist](#T2_37_12).

**2.52.1 *Address Human Systems Integration (HSI) Considerations.*** Reference Appendix A, [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1)

**2.53** ***Refine the Supportability Requirements in the System Performance Specification.*** Review LogEA CONOPS for compliance with architecture – creation of Operational / System / Technical View document may be required.

**2.54** ***Participate in the System Requirements Review (SRR).*** Reference Appendix A, [2.54 Participate in SRR Checklist](#T2_54) (Systems Functional Specification) Checklist.

**2.55** ***Continue to Evaluate Contractor Delivered Data.*** Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required. Reference Appendix A, [2.50 Evaluate Contractor Delivered Data Checklist](#T2_50) and [2.50.1 Manage T.O. Acquisition Program Checklist](#T2_50_1) and [2.50.4 Establish and Manage Training Systems Checklist](#T2_50_4).

**2.56** ***Support Independent Logistics Assessment (ILA) and take corrective action*.** An ILA is an independent assessment to determine the sufficiency of a program’s overall product support and sustainment planning and implementation prior to acquisition milestones and major decisions. The ILA results shall be the basis for the program’s Product Support Planning and Implementation certification recommendation in support of the acquisition Milestones B and C and the Full Rate Production (FRP) decisions. ILAs are currently not mandatory but are recommended for ACAT I programs. The ILA handbook is available for use by all programs. [USAF ILA Handbook](https://acc.dau.mil/GetAttachment.aspx?id=32430&pname=file&aid=6132)

**2.57** ***Evaluate Prototype(s) for Supportability*.** Logistician should review logistics data including Commercial Off-The-Shelf and Contractor Data Requirements List. Other data to review is level of repair analysis,maintenance task analysis, reliability centered maintenance, Energy Efficiency, HSI, Environment, Safety & Occupational Health (ESOH), Noise (ambient & occupational), Alternate Fuels considerations, support equipment/automatic test systems, engineering data,provisioning,maintenance check flight,Reliability Prediction Data and progress toward meeting Product Support KPP/KSAs, etc. Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required. Reference Appendix A, [2.37.12 Implement SLIM Processes and Programs Checklist](#T2_37_12)

**2.58** ***Participate in the System Functional Review (SFR).*** Reference Appendix A, [2.58 Participate in SFR Checklist](#T2_58).

**2.59** ***Participate in the Preliminary Design Review (PDR).*** Reference Appendix A, [2.59 Participate in PDR Checklist](#T2_59).

**2.60** ***Continue Evaluation of Contractor Delivered Data.*** Reference Appendix A, [2.50 Evaluate Contractor Delivered Data Checklist](#T2_50), [2.50.1 Manage T.O. Acquisition Program Checklist](#T2_50_1) and [2.50.4 Establish and Manage Training Systems Checklist](#T2_50_4).

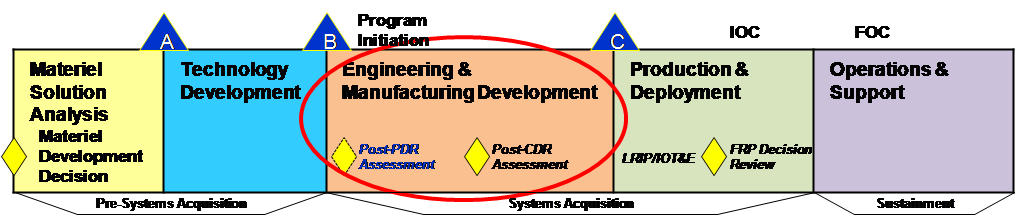
**2.61** ***Update the Cost Estimates for Supportability.*** Reference Appendix A, [2.25 Include Supportability Requirements in the CARD, POE, CCA, ICE, Affordability Assessment Checklist](#T2_25).

**2.61.1** ***Develop Production Document for Support Equipment (SE) (used for forecasting).***

**2.62** ***Prepare Documentation for Milestone Decision Authority (MDA) Review.*** Per [10 USC 2366A](http://www.gpoaccess.gov/uscode/index.html), the MDA must provide a signed certification memorandum for record prior to Milestone B approval. Per [10 USC 2437](http://www.gpoaccess.gov/uscode/index.html), a [Replaced System Sustainment Plan](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5241551&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) must be developed. This plan is for the existing system that the system under development is intended to replace. Reference Appendix A, [2.62 Prepare Documentation for Milestone B Checklist](#T2_62).

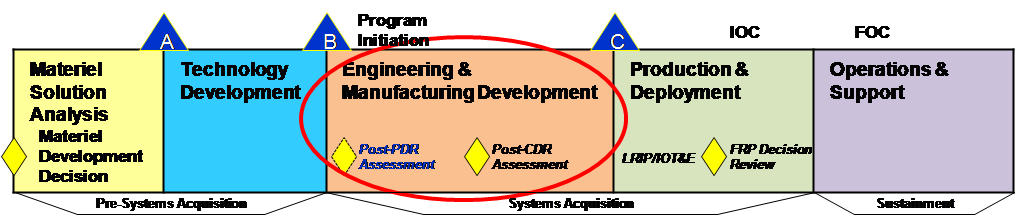
ENGINEERING & MANUFACTURING DEVELOPMENT

The purpose of the EMD Phase is to develop a system or an increment of capability; complete full system integration (technology risk reduction occurs during Technology Development); develop an affordable and executable manufacturing process; ensure operational supportability with particular attention to minimizing the logistics footprint; implement human systems integration (HSI); design for Producibility; ensure affordability; protect CPI by implementing appropriate techniques such as anti-tamper; and demonstrate system integration, interoperability, safety, and utility. The CDD, Acquisition Strategy, SEP, and Test and Evaluation Master Plan (TEMP) shall guide this effort. Entrance into this phase depends on technology maturity (including software), approved requirements, and full funding. Unless some other factor is overriding in its impact, the maturity of the technology shall determine the path to be followed.

The independent planning of dedicated Initial Operational Test and Evaluation (IOT&E), as required by law, and Follow-on Operational Test and Evaluation (FOT&E), if required, shall be the responsibility of the appropriate operational test agency (OTA). A Director, Operational Test & Evaluation (DOT&E) - approved Live-Fire Test and Evaluation (LFT&E) strategy shall guide LFT&E activity. A Program Management Directive (PMD) is issued and should include supportability requirements. Following the Materiel Development Decision (MDD), the MDA may authorize entry into the acquisition management system at any point consistent with phase-specific entrance criteria and statutory requirements. For programs that enter at Milestone B, ensure coverage of tasks in the previous chapters. 

ENGINEERING & MANUFACTURING DEVELOPMENT integratED sysTEM DESIGN

The Integrated System Design effort is intended to define system and system-of-systems functionality and interfaces (hardware, software & human), complete hardware and software detailed design, and reduce system-level risk. Integrated System Design shall include the establishment of the product baseline for all configuration items.



**Task Description**

**3.01** ***Review* *Program Management Directive (PMD) for supportability requirements.***

**3.02** ***Stand up the Program Office with a Product Support Manager (PSM) and Logistics Personnel.*** Specifically assign a PSM, Technical Order Manager and Support Equipment manager and coordinate with training organizations. Identify or source adequate Logistics Personnel to manage the program product support activities. In addition to program office personnel, include appropriate sustainment personnel support. Example - support / logistics center to include other services / agencies. Notify AFMC/A4F and AFSPC/A4/7R (for space) that an Air Force program office has been established. Determine if input into [Centralized Access for Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/) is required. Reference Appendix A, [5.25 Utilize CAM / CAFDEX Checklist](#T5_25)

**3.02.1** ***Verify an ALC Product Support Integrator (PSI) (formerly System Sustainment Manager (SSM)) has been identified.***

**3.03** ***Conduct Intelligence integration during EMD.*** Ensure the intelligence supportability elements are addressed. Ensure consideration of the 12 Product Support elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*. Reference Appendix A, [1.04 Accomplish Intelligence Integration throughout the Life Cycle Checklist.](#T1_04) Reference Appendix A, [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1) for unique HSI overlaps that may influence the intelligence integration.

**3.04** ***Conduct Post-PDR Assessment.*** If a PDR has not been conducted prior to MS B, the PM shall plan for a PDR as soon as feasible after Program Initiation. The MDA will consider the results of the PDR and the PM’s assessment, and determine whether remedial action is necessary to achieve APB objectives. The results of the MDAs Post-PDR Assessment shall be documented in an ADM. Reference [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf), Enclosure 2, Para 6.C. (6) (b) page 21. Reference Appendix A, [2.59 Participate in PDR Checklist](#T3_20) and [1.09.1 Address Environmental Safety & Occupational Health Checklist](#T1_09_1).

**3.05** ***Complete the Supportability Reporting Template for all Program Executive Officer (PEO) Reviews.*** The Portfolio Review is the culmination of a review process that starts at the program level, continues through the Wing/DRG and PEO levels, and culminates in a presentation to SAF/AQ, AFMC/CC, and AF/A4. The most detail will be provided at the Wing/DRG level, with summary data and significant issues only briefed at the PEO and SAF/AQ, AFMC/CC, AF/A4 levels. The Supportability Quad chart provides a summary of supportability / sustainment planning activities to include: major players, transfer eligibility, sustainment funding, overall supportability element status, and issues.

**3.06** ***Ensure Supportability is included in Program Management / Expectation Management Agreements (PMA/EMAs).*** Reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16).

**3.07** ***Complete Depot Source of Repair (DSOR) Process and Depot Maintenance Interservicing (DMI)*.** If programs enter at the Engineering & Manufacturing Development phase then a DSOR and DMI needs to be conducted. The DSOR process consists of SSOR (if applicable), SORAP, and DMI. DSOR is the method by which depot maintenance posturing decisions for both hardware and software are made. It applies to both new acquisition and fielded programs. DMI is to determine if a DOD depot repair capability already exists (Army, Navy, or Marines). DMI support shall be utilized and provided to the maximum extent possible commensurate with effective support to operational forces and efficient utilization of the Services' depot maintenance resources. All weapon systems, end items, and their components that require or are planned for depot level maintenance require a DSOR analysis be completed per [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) *Acquisition & Sustainment Life Cycle Management*. Funds shall not be committed to facilitate a specific site for depot maintenance prior to the DMI study. For systems that are entering the Air Force that have already had a DMI study done (other DOD services) then a DMI does not need to be re-accomplished. Verify with HQ AFMC/A4D if a DMI study has been done. Reference Appendix A, [2.04 Initiate the DSOR Process Checklist.](#T2_04)

**3.08** ***Ensure determination of Core & Assign Candidate Depot*.** If programs enter at the Engineering & Manufacturing Development phase then a SORAP and DMI needs to be conducted. Although this is part of the DSOR process outlined in task 2.04, it is critical and is necessary for Title 10 compliance. Core is the organic depot capability required to assure mission support for weapon systems designated for fulfilling strategic and contingency plans. Core is a legislative requirement. [10 USC 2464](http://www.gpoaccess.gov/uscode/index.html), states the DOD will retain a logistic capability of technical competencies and resources to meet national defense situations. Workloads are used to retain the capability. The amount of organic capability retained is dependent on the risk results – low risk, less organic; high risk, more organic. Core is identified as direct labor hours for each technology. Core exists to reduce risk for operational forces. Core requires government facilities, government equipment and government people. Reference Appendix A, [2.04 Initiate the DSOR Process Checklist.](#T2_04)

**3.09** ***Accomplish Source of Repair Assignment Process (SORAP).***The SORAP is the follow on to an SSOR for programs that enter after Milestone B. DSOR decision process considers both contract and organic sources of depot maintenance capabilities in all Military Services, as well as joint contracting opportunities. The objective is to reduce weapon system costs for depot activation and recurring depot support. Early completion of the process can shorten interim contract support. Sustainment decisions must ensure compliance with public law Title [10 USC 2466](http://www.gpoaccess.gov/uscode/index.html) (50/50). This is addressed in SORAP prior to the DMI submission. Note: Each center will annually collect cost data for all contract and organic depot maintenance workloads. If programs enter at the Engineering & Manufacturing Development phase then a DSOR and DMI needs to be conducted. Reference Appendix A, [2.04 Initiate the DSOR Process Checklist.](#T2_04)

**3.09.1** ***Ensure Weapon System Support Program (WSSP) accomplished – Weapon System Designator Code (WSDC).*** Reference Appendix A, [3.09.1 WSSP Checklist](#T3_09_1) and [5.12 DLA Interface Checklist](#T5_12).

**3.10** ***Ensure Facility Construction is on track.*** The facilities acquisition cycle runs as a part of the acquisition life cycle. During Materiel solution analysis  & Technology Development: Review the users Initial Capability Document (ICD) and Capability Development Document (CDD) for any identified facility requirements Ensure the Logistics IPT is aware of the user’s ICD or CDD requirements. Ensure industry is required to identify, as part of the contractual requirements, the anticipated facility requirements to support their respective designs. Detailed facility requirements will not be available at this early stage. During Engineering & Manufacturing Development: Ensure contractual requirements levy the need for detailed facility requirements data to be submitted. Confirm site surveys are being scheduled and conducted and facility project books are developed. Ensure National Environmental Policy Act (NEPA) actions have been initiated and are on schedule. Participate in the review of facility designs as they progress. During Production & Deployment: Monitor facility construction projects paying particular attention to adherence to the construction schedule. Coordinate the availability for occupancy date of the facility with the delivery of resources for that facility; i.e., support equipment. During Operations and Support: As part of the program manager’s periodic readiness assessment, ensure facilities are continuing to provide the capabilities needed for mission support. Reference Appendix A, [2.10 Facilities Concept Checklist](#T2_10), [2.10.2 Address NEPA Requirements Checklist](#T2_10_2) and [2.11 Define and Implement MILCON Requirements Checklist](#T2_11)

**3.11** ***Continue to*** ***Evaluate contractor delivered Data.*** Reference Appendix A, [2.50 Evaluate Contractor Delivered Data Checklist](#T2_50).

**3.11.1** ***Ensure data to support System Life Cycle Integrity Management (SLIM) requirements is addressed.*** Manage O&M Data which records how the equipment is used, maintained and identify environmental conditions the system is exposed to during its life cycle. Collect data such as:

-- How manufactured, employed/operated, maintained and modified

-- Thermal, humidity and vibration environmental data

The purpose is to predict the Remaining Usable Life (RUL) of an installed component. Reference Appendix A, [2.37.12 Implement SLIM Processes & Programs Checklist](#T2_37_12) and [3.11.1 SLIM Checklist](#T3_11_1).

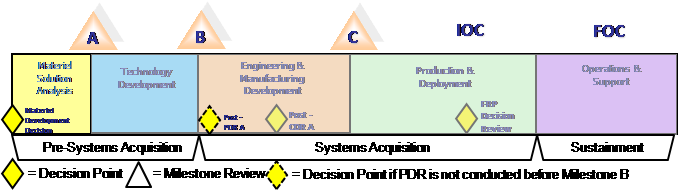
**3.12** ***Participate in the Critical Design Review (CDR****).* Reference Appendix A, [3.12 Participate in the CDR Checklist](#T3_12).

**3.12.1** ***Establish Technical Order Product Baseline.***

**3.13** ***Conduct Post-CDR Assessment****.* The MDA shall review the Post-CDR Report and the PM's resolution/mitigation plans and determine whether additional action is necessary to satisfy EMD Phase exit criteria and to achieve the program outcomes specified in the APB. The results of the MDA's Post-CDR Assessment shall be documented in an ADM. Reference [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf), Enclosure 2, Para 6.C. (6) (c) page 21. Reference Appendix A, [3.13 Prepare the Documentation for Post-CDR Assessment Checklist](#T3_13)

ENGINEERING & MANUFACTURING DEVELOPMENT

System CAPABILITY & MANUFACTURING PROCESS DEMONSTRATION

This effort is intended to demonstrate the ability of the system to operate in a useful way consistent with the approved KPPs and that system production can be supported by demonstrated manufacturing processes. The program shall enter System Capability and Manufacturing Process Demonstration upon completion of the Post-CDR Assessment and establishment of an initial product baseline. This effort shall end when the system meets approved requirements and is demonstrated in its intended environment by representative personnel using the selected production-representative article; manufacturing processes have been effectively demonstrated in a pilot line environment; industrial capabilities are reasonably available; and the system meets or exceeds exit criteria and Milestone C entrance requirements. Successful developmental test and evaluation (DT&E) to assess technical progress against critical technical parameters, early operational assessments, and, where proven capabilities exist, the use of modeling and simulation to demonstrate system/system-of-systems integration are critical during this effort. T&E should be used to assess improvements to mission capability and operational support based on user needs and should be reported in terms of operational significance to the user. The completion of this phase is dependent on a decision by the MDA to commit to the program at Milestone C or a decision to end this effort. 

**Task Description**

**3.14** ***Annotate the Product Support Capabilities*.** The Logistician must ensure product support capabilities are annotated in all plans and documents.

**3.15** ***Update Supportability Requirements in the Cost Analysis Requirements Description (CARD), Program Office Estimate (POE), Component Cost Analysis (CCA), Independent Cost Estimate (ICE), and Affordability Assessment.*** Reference Appendix A, [2.25 Include Supportability Requirements in the CARD, POE, CCA, ICE Affordability Assessment Checklist](#T2_25).

**3.15.1** ***Include Support Equipment (SE) in Life Cycle Cost Documents Including Replacement Costs.***

**3.16** ***Continue Program Objective Memorandum (POM) inputs for Supportability Requirements.*** Reference Appendix A, [2.28 Include supportability Requirements in POM Submission Checklist](#T2_28) and [2.10.1 Determine Manpower and Personnel Requirements Checklist](#T2_10_1).

**3.17** ***Participate in the Test Readiness Review (TRR).*** Reference Appendix A, [3.17 Participate in the TRR Checklist](#T3_17).

**3.18** ***Ensure Support for Development Test and Evaluation (DT&E), Live Fire Test and Evaluation (LFT&E), Early Operational Assessments (EOAs), and Operational Assessments (OAs).*** Logistics inputs should be included in development of both the Test and Evaluation Strategy (TES) and the Test and Evaluation Master Plan (TEMP). Developmental testing is conducted throughout the acquisition and sustainment processes to assist in engineering design and development, and to verify that critical technical parameters have been achieved. DT&E supports the acquisition of new materiel or operational capabilities before full-rate production or fielding decisions. LFT&E is a type of DT&E that provides timely, rigorous, and credible vulnerability or lethality tests and evaluations of “covered” systems as they progress through the Engineering & Manufacturing Development phase prior to full-rate production or major system modification that affects survivability. OAs are conducted in preparation for dedicated operational testing as described in the DOD 5000-series and typically support Milestone C or low-rate initial production (LRIP) decisions. They are progress reports and are not capable of rating a system effective or suitable. OA’s provide early operational data and feedback derived from actual testing to developers, operators, and decision makers. Logisticians must ensure all Product Support KPP/KSAs and other important Product Support capabilities are included and that test support personnel and other resources are identified to support the assessments. Intelligence professionals must be consulted to ensure threat assessment baselines are reviewed. Reference Appendix A, [1.04 Accomplish Intelligence Integration throughout the Life Cycle Checklist](#T1_04). Consider application of modeling, simulation and analysis tools. Reference Appendix A, [2.18.1 Consider application of modeling, simulation and analysis tools Checklist](#T2_18_1).

**3.19** ***Analyze data from Development Test and Evaluation (DT&E) Early Operational Assessments (EOAs), and Operational Assessments (OAs).***

**3.20** ***Update Supportability in the Acquisition Program Baseline (APB).*** Reference Appendix A, [2.27 Include Supportability in the APB Checklist](#T2_27).

**3.21** ***Update the Product Support Strategy in the Life-Cycle Management Plan (LCMP).*** Utilize the Next Generation CLS [Contract Sustainment Support Guide (CSSG)](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=11621638&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) for proven best practices in developing product support strategies. Reference Appendix A, [3.21 Update the Product Support Strategy in the LCMP Checklist](#T3_21). Address any logistics concerns for test in the T&E portion of the LCMP.

**3.21.1 *Review Requirement Document/Capability Development Document (CDD).***

**3.21.1.1 *Review Unique Munitions Acquisition Activities.*** Reference Appendix A, [1.15.1.1 Unique Munitions Acquisition Activities Checklist](#T1_15_1_1)

**3.21.2 *Review Strategies for similar Products/Strategies.***

**3.21.3 *Refine Product Support Strategy.***

**3.21.4 *Update Risk Assessment.***

**3.21.5 *Update Cost Estimate.*** Ensure that cost estimates actually look at the comparative people costs of the various alternatives. This should be expanded to correctly capture the CARD or other similar document and ensure that the full costs are considered. The use of LCOM or similar data to run MPT analysis for various maintenance / support concepts can be very effective in driving the design rather than reacting to it.

**3.21.6 *Ensure summary of Programmatic Environmental Safety and Health Evaluations (PESHE) is included in LCMP.***

**3.21.7 *Review entire LCMP for disconnects.***

**3.21.8 *Approve Product Support Strategy (Test Readiness Review (TRR)).***

**3.21.9 *Update LCMP based on Acquisition Strategy Panel (ASP) Recommendations.***

**3.22** ***Include Supportability in the Source Selection Plan (SSP).*** Reference Appendix A, [1.17 Include Supportability in the SSP Checklist](#T1_17).

**3.23** ***Complete Acquisition Strategy Panel (ASP) supportability template.***The ASP briefing template provides an idea of the types of information SAF/AQ will expect to be addressed to include Human System Integration & Environment, Safety, and Occupational Health. The template can be adjusted as necessary to meet unique program information requirements. The product support strategy is part of the template to address sources of repair and supply, performance based logistics, etc. Ensure Product Support related KPPs, Depot Planning Status, Sustainment Budgeting Status, Transition to Sustainment Management, Fielding Planning and the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) *Acquisition & Sustainment Life Cycle Management* are considered. Also ensure the Military Equipment Program Valuation (MEPV) is included for Milestone C and Full Rate Production decisions. The MEPV is not a part of the supportability template but will be addressed in ASP. For guidance on ASPs see the Acquisition Excellence and Change Office (SAF/AECO). [Link to ASP template](https://www.my.af.mil/gcss-af/USAF/ep/browse.do?programId=t6925EC2D4C750FB5E044080020E329A9&channelPageId=s6925EC13430A0FB5E044080020E329A9) Services acquisition strategy templates are found at: [AFPEO/CM CoP](https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-AQ-AF-25)

**3.24** ***Participate in the Analysis of Alternatives (AOA) Update*.** Logistics SMEs should be included as participants in the AoA, as well as supporting any follow-on actions that update these analyses. Consider application of modeling, simulation and analysis tools. Reference Appendix A, [1.06 Analysis of Alternative Checklist](#T1_06), [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1) and [2.18.1 Consider application of modeling, simulation and analysis tools Checklist](#T2_18_1).

**3.25** ***Include Supportability Requirements in the Request for Proposal (RFP).*** Reference Appendix A, [1.20 Include Supportability Requirements in RFP Checklist](#T1_20) and [2.50.1 Manage T.O. Acquisition Program Checklist](#T2_50_1) and [2.37 PHS&T Checklist](#T2_37).

**3.25.1** ***Coordinate with Air Logistics Centers to ensure Packaging, Handling, Storage & Transportation (PHS&T) requirements (including data) are on the development contract.***

**3.25.2** ***Place Packaging Data, Transportation and Transportability data requirements in the Contract Data Requirements List (CDRL) on contract.***

**3.25.3** ***Develop a Technical Order Data Request For Proposal (RFP) including the Technical Manual Contract Requirements (TMCR) Document TM-86-01.***

**3.25.4 *Develop Product Data Request For Proposal (RFP) including the Contract Data Requirements List (CDRL) per*** [***Product Data Acquisition Guidance***](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)***.***

**3.26** ***Include Data and Data Rights in the Request for Proposal (RFP).*** The AF should request all of the data and data rights entitled through contractual requirements or government funding of development of the part or system. The contractor will need to provide a matrix identifying all data rights that they assert. The burden of proof that the contractor is allowed to retain rights to data is now on the contractor per [10 USC 2320](http://www.gpoaccess.gov/uscode/index.html) & [10 USC 2321](http://www.gpoaccess.gov/uscode/index.html). The contractor may want to offer up rights that they could otherwise retain to enhance their position during source selection. The actual rights received by the Air Force will result from negotiations.  All ACAT I and ACAT II programs, regardless of planned sustainment approach shall assess the long-term technical data needs (including product definition, operations, maintenance, installation and training data) and reflect that assessment in the Technical Data Rights Strategy. For the acquisition of engineering data reference [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/html/500002.htm) Enclosure 12. Also see [Product Data Acquisition (PDAQ) Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM) on the PDAQ web page. Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required. Reference Appendix A, [1.20 Include Supportability Requirements in RFP Checklist](#T1_20)

**3.26.1** ***Review*** [***Berry Amendment***](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+10USC2533) ***for application to your program and ensure compliance in all contracting actions.***

**3.26.2** ***Include options for* *Radio-Frequency Identification (RFID) in the Request For Proposal (RFP).*** RFID is an automatic identification method, relying on storing and remotely retrieving data using devices called RFID tags or transponders. A significant thrust in RFID use is in enterprise supply chain management, improving the efficiency of inventory tracking and management. Ensure that provisions for RFID are considered for inclusion in the RFP. .

**3.26.3** ***Include options for Item* *Unique Identification (IUID)*** ***in the Request For Proposal (RFP).*** IUID isthe set of data for tangible assets that is globally unique and unambiguous and ensures data integrity and data quality throughout life, and supports multi-faceted business applications and users. Ensure that provisions for IUID marking are included in the RFP to include marking of Support Equipment. IUID is integral to completion of program requirements for the Military Equipment Program Valuation (MEPV).

**3.26.4** ***Define Contractor Supported Weapon System (CSWS) Data Requirements.*** Reference Appendix A, [1.21.4 Define CSWS Data Requirements Checklist](#T1_21_4)

**3.27** ***Update the Supportability Inputs to the Test and Evaluation Master Plan (TEMP).*** Reference Appendix A, [2.51 Identify and Plan Supportability Requirements for the TEMP Checklist](#T2_51).

**3.28** ***Update the supportability inputs to the Systems Engineering Plan (SEP).*** The purpose of the SEP is to document the systems engineering planning effort guiding all technical aspects of the program. The SEP provides the overarching plan for bringing the hardware, software, and human sub-systems into an integrated System. It should be a living document, tailored to the program and should serve as a roadmap to support program management by defining comprehensive system engineering activities, addressing both government and contractor technical activities and responsibilities. Ensure HSI planning is documented in the SEP. Ensure Intelligence is integrated into systems engineering process, as applicable. Review LogEA CONOPS for compliance with architecture – creation of System View document may be required. The logistician needs to be included on the team to ensure Reliability, Availability, Maintainability and Cost (RAM-C), System Lifecycle Integrity Management (SLIM), and the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* are addressed during engineering analysis and documented in the plan. Item Unique Identification (IUID) implementation plan will be included in the SEP. See [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf), *Guide to Acquisition & Sustainment Life Cycle Management*. Reference Appendix A, [1.13 SEP Checklist](#T1_13), [3.11.1 SLIM Checklist](#T3_11_1) and [1.04 Accomplish Intelligence Integration throughout the Life Cycle Checklist.](#T1_04)

**3.28.1 *Address Human Systems Integration (HSI) Considerations.*** Reference Appendix A, [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1)

**3.29** ***Participate in Risk Management.*** A risk management approach for use in the acquisition of new systems, end-items, and equipment based upon four attributes: risk management planning, risk assessment, risk mitigation, and risk management control. When properly implemented, an effective risk management program facilitates identification of areas that require special attention and sets realistic, executable technical, schedule, and cost objectives. Risk Management is applicable to all phases and aspects of any acquisition or modernization program. The logistician needs to ensure the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* are addressed during cost, schedule, and technical performance risk assessments. Product Support areas that must be considered are: Producibility, Intelligence, Interoperability, Corrosion Control, Reliability, Availability, Maintainability and Cost (RAM-C), System Lifecycle Integrity Management (SLIM), Energy Efficiency, HSI, Environment, Safety & Occupational Health (ESOH), Noise (ambient and occupational), and Alternate Fuels considerations, lifecycle support cost, and all Product Support related KPP/KSAs. These risk assessments must address adverse impacts on warfighters capabilities to operate, maintain and support the system in an effective and safe manner. Consideration must also be given to reclamation, demilitarization and disposal. Reference [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) *Guide to Acquisition & Sustainment Life Cycle Management* Chap 12 and Appendix A [2.46 Participate in Integrated Baseline Review (IBR) Checklist](#T2_46) and [1.09.1 Address Environmental Safety & Occupational Health Checklist](#T1_09_1)

**3.29.1** ***Provide information as required to the Configuration Steering Board (CSB) for ACAT I & IA programs.*** See [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Para 9 d. and [CSB Template](https://www.my.af.mil/gcss-af/USAF/AFP40/d/s6925EC13430A0FB5E044080020E329A9/Files/editorial/CSB%20for%20Annual%20Review%20and%20Decoping.pptx)

**3.30** ***Ensure Supportability Requirements are in the Capability Production Document (CPD).*** A CPD is a document prepared by the user, and refined from the Capability Development Document, to identify production attributes specific to a single increment of capability. Human Systems Integration (HSI), (see [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) Page 70), provides an integrating process to address the human considerations in the CPD. The Logistician should ensure OSD mandated KPP/KSAs and metrics are included. See [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual). The Logistician should work to ensure Reliability, Availability, Maintainability & Cost (RAM-C) & System Lifecycle Integrity Management (SLIM) requirements; Interoperability, Producibility, Item Unique Identification (IUID), Radio Frequency Identification (RFID) if applicable, System Accreditation, Life Cycle Support Cost Estimates and Budgeting are included as KPPs in the CPD. Ensure the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* are specifically addressed. Ensure Energy Efficiency Environment, Safety & Occupational Health (ESOH), Noise (ambient and occupational), and support for Alternative Fuels are addressed. Ensure intelligence concerns are addressed. The CPD supports the Milestone C decision. Reference Appendix A, [3.30 CPD Checklist](#T3_30).

**3.31** ***Update the Supportability Key Performance Parameters (KPPs).*** Reference Appendix A, [2.23 Develop Supportability KPPs Checklist](#T2_23).

**3.32** ***Participate in the Functional Configuration Audit (FCA) and monitor corrective actions for supportability performance requirements.*** ReferenceAppendix A, [3.32 Participate in the FCA Checklist](#T3_32).

**3.33** ***Participate in the System Verification Review (SVR) and Production Readiness Review (PRR).*** Reference Appendix A, [3.33 Participate in the SVR and PRR Checklist](#T3_33).

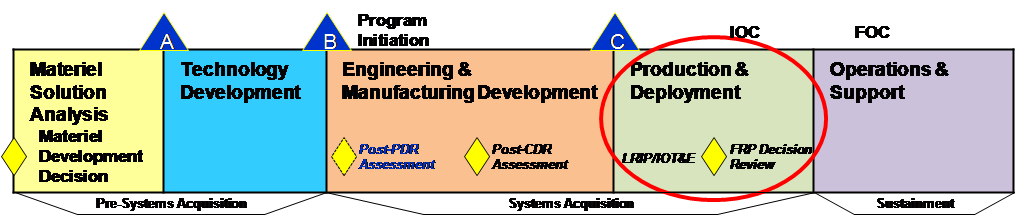
**3.34** ***Include Logistics Activities in the Integrated Master Plan/Integrated Schedule (IMP/IMS).*** Reference Appendix A, [1.23 Include Product Support Activities in the IMP/IMS Checklist](#T1_23).

**3.35** ***Participate in Source Selection.***

**3.36** ***Support Independent Logistics Assessment (ILA) and take corrective action.*** An ILA is an independent assessment to determine the sufficiency of a program’s overall product support and sustainment planning and implementation prior to acquisition milestones and major decisions. The ILA results shall be the basis for the program’s Product Support Planning and Implementation certification recommendation in support of the acquisition Milestones B and C and the Full Rate Production (FRP) decisions. ILAs are currently not mandatory but are recommended for ACAT I programs. The ILA handbook is available for use by all programs. [USAF ILA Handbook](https://acc.dau.mil/GetAttachment.aspx?id=32430&pname=file&aid=6132). Ensure compliance with LogEA as part of review.

**3.37** ***Prepare Documentation Required for Milestone C.***  Per [10 USC 2437](http://www.gpoaccess.gov/uscode/index.html), a [Replaced System Sustainment Plan](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5241551&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) must be developed. This plan is for the existing system that the system under development is intended to replace. Reference Appendix A, [3.37 Prepare documentation required for Milestone C Checklist](#T3_37)

Production & Deployment

The purpose of the Production and Deployment phase is to achieve an operational capability that satisfies mission needs. Operational test and evaluation shall determine the effectiveness and suitability of the system. The Milestone Decision Authority (MDA) shall make the decision to commit the Department of Defense to production at Milestone C and shall document the decision in an Acquisition Decision Memorandum (ADM). Milestone C authorizes entry into Low Rate Initial Production (LRIP) (for Major Defense Acquisition Program (MDAPs) and major systems), into production or procurement (for non-major systems that do not require LRIP) or into limited deployment in support of operational testing for Major Automated Information System (MAIS) programs or software-intensive systems with no production components. Following the Materiel Development Decision (MDD), the MDA may authorize entry into the acquisition management system at any point consistent with phase-specific entrance criteria and statutory requirements. For programs that enter at Milestone C, ensure coverage of tasks in the previous chapters. ****

**Task Description**

**4.01** ***Develop Initial Migration Plan.*** Reference: [AFI 16-402](http://www.e-publishing.af.mil/shared/media/epubs/AFI16-402.pdf), *Aerospace Vehicle Programming, Assignment, Distribution, Accounting, and Termination*. Plan developed by the Weapon System Program Manager (PM) that identifies the current and programmed force structure throughout the Future Years Defense Program (FYDP), the current and programmed divestiture of all aerospace vehicles throughout the FYDP (MDS changes, conversion to trainers, Aerospace Maintenance and Regeneration Group (AMARG) inductions, Foreign Military Sales (FMS), Security Assistance Program (SAP), transfers to other services or DOD agencies, and donations to the NMUSAF, etc.). Aerospace vehicles are: aircraft in Federal Supply Classification (FSC) 1510 and 1520, gliders in FSC 1540, remotely piloted vehicles and aerial target drones in FSC 1550, missiles in FSC 1410 and space systems (Boosters, Upper Stages, and Satellites). As aerospace vehicles are retired the Migration Plan is used to determine present and future requirements to support the remaining vehicles in the active inventory, and includes an inventory by tail number of AMARG stored aerospace vehicles detailing their current and programmed status throughout the FYDP.

**4.02** ***Award Low Rate Initial Production (LRIP) Contract.***

**4.02.1** ***Ensure Weapon System Program Complies with Air Force Policy for no new Software System Development without AF/CIO Approval.*** This excludes Mission Critical Computer Resources (MCCR) and National Security Systems. Reference [AFPD 33-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD33-1.pdf), *Information Resource Management* and [AFI 33-141](http://www.e-publishing.af.mil/shared/media/epubs/AFI33-141.pdf) *AF IT Portfolio Management and IT Investment* Review Para 1.5. Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required.

**4.02.2** **C*ontact the Air Force POC at ASC/ENV for special considerations regarding production accomplished at Government- Owned Contractor-Operated (GOCO) facilities***

**4.03** ***Include Supportability Requirements in Defense Contract Management Agency Memorandum of Agreement (DCMA MOA).*** MOA is similar in concept to PMA/EMA; reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16).

**4.04** ***Update Intelligence integration during production and deployment.*** Ensure Intelligence supportability elements are addressed. Ensure consideration of the 12 Product Support elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*. Reference Appendix A, [1.04 Accomplish Intelligence Integration throughout the Life Cycle Checklist.](#T1_04) Consider HSI overlapping impacts as contained in [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1).

**4.05** ***Participate in Contract Oversight and Review.*** The logistician needs to participate in the Support Equipment Guidance Conference, understand the Deficiency Report (DR) process and participate in Configuration Control Boards (CCB).

**4.05.1** ***Accomplish Support Equipment (SE) Guidance Conference.*** Reference Appendix A, [2.47.1 Accomplish SE Guidance Conference Checklist](#T2_47_1).

**4.05.2** ***Participate in the Deficiency Report (DR) Process.*** Reference Appendix A, [2.47.2 Provide Logistics Support During the DR Process Checklist](#T2_47_2).

**4.05.3** ***Participate in the Configuration Control Board (CCB).*** See [AFI 63-131](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-131.pdf) *Modification Program Management* and [MIL-HDBK-61A](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=202239) (SE) *Configuration Management Guidance*. Reference Appendix A, [2.47.3 Participate in the CCB Checklist](#T2_47_3).

**4.05.4** ***Accomplish the Provisioning Conference*** See [AFMCI 23-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-101.pdf) *Air Force Provisioning Instruction,* [AFMCI 23-104](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-104.pdf) *Functions and Responsibilities of the Equipment Specialist during Provisioning* and Reference Appendix A, [4.05.4 Accomplish Spares Provisioning Conference Checklist](#T4_05_4).

**4.06** ***Complete the Program Transfer Template as required for All Program Executive Officer (PEO) Reviews.***This template outlines a collaborative (acquisition & sustainment), seamless, repeatable process that ensures a supportable program transition between acquisition and sustainment portfolios. The template can be adjusted as necessary to meet unique program information requirements. Note: this template requires the PM to establish an initial planning date for transferring the program from an acquisition to a sustainment organization. This is the point in the program when the initial transfer date should be established. Reference Appendix A, [4.06 Program Transfer Checklist](#T4_06).

**4.07** ***Ensure adequate resources are planned for Program Transfer (Air Logistics Center (ALC)).*** The PM, Product Support Manager (PSM) and ALC PSI should collaborate on planning acquisition and sustainment activities, including estimated milestones for management transfer. These planning activities should be included in the LCMP as early as possible to allow ALC resources’ (manpower and other infrastructure) lead time to be programmed and put in place in time to accommodate the management transfer. Identify any supportability / logistics requirements for any follow-on (post-production) testing required. Reference Appendix A, [4.06 Program Transfer Checklist](#T4_06).

**4.08** ***Ensure supportability is Included in Program MAnagement / Expectation Management Agreements (PMA/EMAs).*** Reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16).

**4.08.1** ***Ensure weapon system is included in the appropriate annex of the Centralized Asset Management (CAM) Enterprise EMA.*** Contact AFMC/A4F Workflow. The CAM Enterprise EMA sets expectations and program objectives between HQ AFMC and Lead Commands. The weapon system annex documents the programs standards and SPM/PGM projections for capability. Both of these documents support CAM objectives for creating CAM Performance-Based Logistics for sustainment. Reference Appendix A, [4.08.1 CAM Enterprise EMA Checklist](#T4_08_1).

**4.09** ***Complete Supportability Reporting Template for Program Executive Officer (PEO) Reviews.*** The Portfolio Review is the culmination of a review process that starts at the program level, continues through the Wing/DRG and PEO levels, and culminates in a presentation to SAF/AQ, AFMC/CC, and AF/A4. The most detail will be provided at the Wing/DRG level, with summary data and significant issues only briefed at the PEO and SAF/AQ, AFMC/CC, AF/A4 levels. The Supportability Quad chart provides a summary of supportability/ sustainment planning activities to include: major players, transfer eligibility, sustainment funding, overall Supportability element status, and issues.

**4.10** ***Review the Logistics Activities in the Integrated Master Plan/Integrated Master Schedule (IMP/IMS).*** Reference Appendix A, [1.23 Include Product Support Activities in the IMP/IMS Checklist](#T1_23).

**4.11** ***Update the supportability requirements in the Cost Analysis Requirements Description (CARD), Program Office Estimate (POE), Component Cost Analysis (CCA), Independent Cost Estimate (ICE), and Affordability Assessment.*** Reference Appendix A, [2.25 Include Supportability Requirements in the CARD, POE, CCA, ICE, Affordability Assessment Checklist](#P2_25).

**4.12** ***Continue to* *Evaluate Contractor Delivered Data.*** CLS is a performance of maintenance and/or material management functions for a DOD system by a commercial activity.Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required. Reference Appendix A, [2.50 Evaluate Contractor Delivered Data Checklist](#T2_50) and [2.50.1 Manage T.O. Acquisition Program Checklist](#T2_50_1), and [2.50.4 Establish and Manage Training Systems Checklist](#T2_50_4).

**4.12.1** ***Continue collecting and refining data to Support System Life Cycle Integrity Management (SLIM).*** Manage O&M Data which records how the equipment is used, maintained and identify environmental conditions the system is exposed to during its life cycle. Collect data such as:

-- How manufactured, employed/operated, maintained and modified

-- Thermal, humidity and vibration environmental data

The purpose is to predict the Remaining Usable Life of an installed component. Reference Appendix A, [2.37.12 Implement SLIM Processes and Programs Checklist](#T2_37_12) and [3.11.1 SLIM Checklist](#T3_11_1).

**4.13** ***Ensure Contract for Sustainment (Organic, Commercial & Partnerships*).** Specifically includes contractor logistics support**.** The PSM must ensure appropriate management and control activities are in place to accommodate and address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues. This could include requirements input to Centralized Asset Management (CAM) / [Centralized Access for Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/). Reference Appendix A, [5.25 Utilize CAM / CAFDEX Checklist](#T5_25). Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required.

*Organic Maintenance* -Encompasses maintenance and other services performed at a DMAG funded Air Force organic facility. These organic facilities, shop equipment, support equipment, supplies, and spares are all owned by the government and all personnel are employed by the government. Reference [AFMCMAN 20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFMCMAN20-1.pdf) *Maintenance Planning and Execution System*.

*Contract Depot Level Maintenance* -Depot level maintenance performed by a commercial organization under contract with DMAG. Unless otherwise specified, this definition also includes contracts with other DOD organic industrial or contractual facilities. Reference [AFMCMAN 20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFMCMAN20-1.pdf) *Maintenance Planning and Execution System*.

*Public-Private Partnership for Depot Level Maintenance* - is a cooperative arrangement between an organic depot-level maintenance activity and one or more private sector entities to perform DOD or Defense-related work and/or to utilize DOD depot facilities and equipment. Other government organizations, such as program offices, inventory control points, and materiel/systems/logistics commands, may be parties to such agreements. Reference [DODI 4151.21](http://www.dtic.mil/whs/directives/corres/pdf/415121p.pdf) *Public-Private Partnerships for Depot-Level Maintenance*.

**4.14** ***Participate in Site Activation Task Force (SATAF).*** The SATAF is concerned with planning and activating each operational site and comprised of representatives from the using/operating command, the SPM, PSM, ALC PSI, AETC, and the contractor. The SATAF provides on-site assistance and surveillance to facilitate operational testing and training, and develops a logistics support capability to include site activation plans. The senior logistician is normally delegated the responsibility to coordinate support planning for site activation. The tasks and milestones of site activation management will be detailed in Site Activation Plans and the support planning document. Ensure Intelligence and program protection requirements are considered. Reference Appendix A, [4.14 Site Activation Task Force (SATAF) Checklist](#T4_14).

**4.14.1** ***Establish Site Activation Task Force (SATAF) Team for each location.***

**4.14.2** ***Perform Operational Base Survey.*** Ensure National Environmental Policy Act (NEPA) milestones are met and required documentation completed.Reference Appendix A, [2.10 Facilities Concept Checklist](#T2_10) and [2.10.2 Address NEPA Requirements Checklist](#T2_10_2)

**4.14.3** ***Develop Schedule & Action Items.***

**4.14.4** ***Complete Action Items & Mitigation Plan.***

**4.14.5** ***Execute Support Plan.***

**4.14.6** ***Accept Assets Delivery.***

**4.14.7** ***Conduct Site Activation Task Force (SATAF) Outbrief.***

**4.15** ***Acquire Initial Supply Support.*** Includes management actions, procedures, and techniques necessary to determine requirements to acquire, catalog, receive, store, transfer, issue and dispose of spares, repair parts, and supplies. In layman terms, this means having the right spares, repair parts, and supplies available, in the right quantities, at the right place, at the right time, at the right price. The process includes provisioning for initial support, as well as acquiring, distributing, and replenishing inventories. “Initial” refers to the attainment of the capability to effectively employ a weapon, item of equipment, or system of approved specific characteristics with the appropriate number, type, and mix of spares, repair parts and supplies necessary to operate, maintain, and support the system. Obtain Packaging Data at provisioning conference. Consider application of modeling, simulation and analysis tools. Use readiness based sparing tools (reference [AFMCMAN 23-1](http://www.e-publishing.af.mil/shared/media/epubs/AFMCMAN23-1.pdf)) for spares requirements determination to the greatest extent possible. Ensure hazardous materials authorizations are prepared and submitted to site/installation hazardous material management office. Reference Appendix A, [2.18.1 Consider application of modeling, simulation and analysis tools Checklist](#T2_18_1) and [1.09.1 Address Environmental Safety & Occupational Health Checklist](#T1_09_1)

***NOTE:*** For contractor supported systems ensure coverage of this task. Reference Appendix A, [4.05.4 Accomplish Spares Provisioning Conference Checklist](#T4_05_4).

**4.15.1** ***Execute Contract Requirements.***

**4.15.2** ***Monitor Contractor Spares Progress.***

**4.15.3** ***Monitor Contractor Delivery.***

**4.15.4** ***Monitor Spares Utilization.***

**4.15.5** ***Address Diminishing Manufacturing Sources & Material Shortages (DMSMS) Issues.***

**4.15.6** ***Respond to Deficiency Reports (DR).***

**4.15.7** ***Receive Spares.***

**4.15.8** ***Ensure information provided to Air Logistics Center to complete AFMC Packaging Form 158 and DD Form 1653 (Federal Acquisition Regulation (FAR) clauses for transportation).***

**4.16** ***Acquire Initial Support Equipment.***Includes acquiring equipment (mobile or fixed) required to support the operation and maintenance of a system. This includes ground handling and maintenance equipment, tools, metrology and calibration equipment, and manual and automatic test equipment. During the acquisition of systems, logistics managers are expected to decrease the proliferation of support equipment into the inventory by minimizing the development of new support equipment/automatic test systems and giving more attention to the use of existing government or commercial equipment. “Initial” refers to the attainment of the capability to effectively employ a weapon, item of equipment, or system of approved specific characteristics with the appropriate number, type, and mix of Support Equipment necessary to operate, maintain, and support the system. Consider application of modeling, simulation and analysis tools. Reference Appendix A, [2.18.1 Consider application of modeling, simulation and analysis tools Checklist](#T2_18_1).

***NOTE:*** For contractor supported systems ensure coverage of this task.

**4.16.1** ***Execute Contract Requirements.***

**4.16.2** ***Monitor Contractor Support Equipment (SE) progress.***

**4.16.3** ***Monitor Contractor Delivery.***

**4.16.4** ***Receive Support Equipment (SE).***

**4.16.4.1**  ***Develop list for Support Equipment (SE).*** (PM) Weapon System Specific.

**4.16.4.2**  ***Send approved Support Equipment Recommendation Data (SERD) to 406 SCMS/GULA (WR-ALC Prime Provisioning Activity).***

**4.16.4.3**  ***Aeronautical Systems Center (ASC) Allowance Managers Develop Allowance Source Codes.*** The Allowance Source Code contains all stock numbers that are authorized.

**4.16.4.4**  ***Load into Air Force Equipment Management System (AFEMS) and publish Allowance Standard.***

**4.16.5** ***Monitor Support Equipment (SE) Utilization.***

**4.16.6** ***Address Diminishing Manufacturing Sources & Material Shortages (DMSMS) Issues.***

**4.16.7** ***Respond to Deficiency Reports (DR).***

**4.17** ***Acquire Initial Training/Training Equipment.*** Initial training encompasses the policy, processes, procedures, techniques, training devices, and equipment used to train civilian and military personnel to acquire, operate and support a system. This includes individual and crew training, new equipment training, initial, formal, and on-the-job training. Though the greatest amount of training is accomplished just prior to the fielding of a system, it must be remembered that in most programs, a large number of individuals must also be trained during system development to support the system test and evaluation program. “Initial” refers to the attainment of the capability to effectively employ a weapon, item of equipment, or system of approved specific characteristics with the appropriate number, type, and mix of trained personnel necessary to operate, maintain, and support the system.

***NOTE:*** For contractor supported systems ensure coverage of this task.

**4.17.1** ***Execute Contract Requirements.***

**4.17.2** ***Monitor Contractor Training Material / Equipment Progress.***

**4.17.3** ***Monitor Contractor Delivery.***

**4.17.4** ***Receive Training Material / Equipment.***

**4.18** ***Acquire Formal Technical Orders.*** Reference Appendix A, [2.50.1 Manage T.O. Acquisition Program Checklist](#T2_50_1)

**4.18.1** ***Monitor Contractor Technical Orders / Manuals Progress.***

**4.18.2** ***Receive Technical Orders / Manuals.***

**4.18.3** ***Verify Technical Orders.*** Verify hazards identified in Environment, Safety & Occupational Health (ESOH) analysis have been translated to appropriate cautions and warnings in technical orders.

**4.18.4** ***Respond to Deficiencies.***

**4.19** ***Deliver Initial Supply Support.*** “Initial” refers to the attainment of the capability to effectively employ a weapon, item of equipment, or system of approved specific characteristics with the appropriate number, type, and mix of spares, repair parts and supplies necessary to operate, maintain, and support the system. Ensure hazardous materials authorizations are prepared and submitted to site/installation hazardous material management office.

**4.20** ***Deliver Initial Support Equipment (SE).*** “Initial” refers to the attainment of the capability to effectively employ a weapon, item of equipment, or system of approved specific characteristics with the appropriate number, type, and mix of SE necessary to operate, maintain, and support the system. Reference Appendix A, [2.37.3 Address SE/ATS Management Checklist](#T2_37_3).

**4.21** ***Deliver Initial Training/Training Equipment.*** “Initial” refers to the attainment of the capability to effectively employ a weapon, item of equipment, or system of approved specific characteristics with the appropriate number, type, and mix of trained personnel necessary to operate, maintain, and support the system.

**4.22** ***Deliver Formal Technical Orders.*** Reference Appendix A, [2.50.1 Manage T.O. Acquisition Program Checklist](#T2_50_1).

**4.23** ***Ensure First Asset Available (FAA) and supportable***

**4.24** ***Continue the Depot Maintenance Activation Working Group (DMAWG).*** Depot Sustainment Planning occurs throughout the entire DMAWG process. If additional depot capability is required, it will be addressed through the DMAWG process. Ensure plans created by DMAWG are executed. If pursuing Federal Aviation Administration (FAA) repair station certification for commercial derivative aircraft, reference,[5 Jan 2010 FAA Memorandum](https://afkm.wpafb.af.mil/asps/DocMan/Process/ProcessDOCFunctions.asp?DocID=3539184&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) “*DOD Requesting Part 145 Repair Station Certification*”. Reference Appendix A, [2.06 Establish DMAWG Team Checklist](#T2_06).

**4.24.1** ***Continue Periodic Logistics Planning Meetings.*** The purpose is to coordinate and plan logistics management to ensure supportability of developed and fielded systems with all stakeholders. Logistics management reviews may be done in conjunction with program reviews.

**4.25** ***Continue Program Objective Memorandum (POM) Inputs for Supportability Requirements.*** Reference Appendix A, [2.28 Include Supportability Requirements in POM Submission Checklist](#T2_28) and [2.10.1 Determine Manpower and Personnel Requirements Checklist](#T2_10_1).

**4.26** ***Update Supportability in the Acquisition Program Baseline (APB).*** Reference Appendix A, [2.27 Include Supportability in the APB Checklist](#T2_27).

**4.27** ***Participate in the Operational Test Readiness Review (OTRR).*** Reference Appendix A, [4.27 Participate in OTRR Checklist](#T4_27).

**4.28** ***Ensure support for Initial Operational Test and Evaluation (IOT&E) and Full Up Live Fire Test and Evaluation (LFT&E) or non-full up, alternative live fire testing.***

**4.29** ***Participate in the Initial Operational Test and Evaluation (IOT&E).***

**4.30** ***Analyze data from the Initial Operational Test and Evaluation (IOT&E) and Validate Supportability.***

**4.31** ***Participate in the Physical Configuration Audit (PCA).*** Reference Appendix A, [4.31 Participate in PCA Checklist](#T4_31).

**4.32** ***Update Product Support (PS) Strategy in the Life-Cycle Management Plan (LCMP).*** Utilize the Next Generation CLS [Contract Sustainment Support Guide (CSSG)](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=11621638&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) for proven best practices in developing product support strategies. Reference Appendix A, [3.21 Update Product Support Strategy in the LCMP Checklist](#T3_21).

**4.32.1 *Review Requirement Document/Capability Objective (CPD).***

**4.32.1.1 *Review Unique Munitions Acquisition Activities.*** Reference Appendix A, [1.15.1.1 Unique Munitions Acquisition Activities Checklist](#T1_15_1_1)

**4.32.2 *Review Strategies for similar Products/Strategies.***

**4.32.3 *Refine Product Support Strategy.***

**4.32.4 *Update Risk Assessment.***

**4.32.5 *Update Cost Estimate.*** Ensure that cost estimates actually look at the comparative people costs. This should be expanded to correctly capture the CARD or other similar document and ensure that the full costs are considered. The use of LCOM or similar data to run MPT analysis for various maintenance / support concepts can be very effective in driving the design rather than reacting to it.

**4.32.6 *Ensure summary of Programmatic Environmental Safety and Health Evaluations (PESHE) is included in LCMP.***

**4.32.7 *Review entire LCMP for disconnects.***

**4.32.8 *Approve Product Support Strategy (Operational Test Readiness Review (OTRR).***

**4.32.9 *Update LCMP based on Acquisition Strategy Panel (ASP) Recommendations.***

**4.33** ***Ensure Supportability is included in the Program Management / Expectation Management Agreements (PMA/EMAs).*** Reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16).

**4.33.1** ***Ensure weapon system is included in the appropriate annex of the Centralized Asset Management (CAM) Enterprise EMA.*** Contact AFMC/A4F Workflow. The CAM Enterprise EMA sets expectations and program objectives between HQ AFMC and Lead Commands. The weapon system annex documents the programs standards and SPM/PGM projections for capability. Both of these documents support CAM objectives for creating CAM Performance-Based Logistics for sustainment. Reference Appendix A, [4.08.1 CAM Enterprise EMA Checklist](#T4_08_1)

**4.34** ***Include Supportability in the Source Selection Plan****.* Reference Appendix A, [1.17 Include Supportability in the SSP Checklist](#T1_17).

**4.35** ***Complete Acquisition Strategy Plan (ASP) Supportability Template.*** The ASP briefing template provides an idea of the types of information SAF/AQ will expect to be addressed to include Human System Integration & Environment, Safety, and Occupational Health. The template can be adjusted as necessary to meet unique program information requirements. The product support strategy is part of the template to address sources of repair and supply, performance based logistics, Reliability, Availability, Maintainability & Cost (RAM-C), Maintenance Planning, Product Support KPP compliance and all Product Support requirements. Ensure the Military Equipment Program Valuation (MEPV) is included for Full Rate Production decisions. The MEPV is not a part of the supportability template but will be addressed in the ASP. For guidance on ASPs see the Acquisition Excellence and Change Office (SAF/AECO). [Link to ASP template](https://www.my.af.mil/gcss-af/USAF/ep/browse.do?programId=t6925EC2D4C750FB5E044080020E329A9&channelPageId=s6925EC13430A0FB5E044080020E329A9). Services acquisition strategy templates are found at: [AFPEO/CM CoP](https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-AQ-AF-25)

**4.36** ***Include Supportability Requirements in the Request For Proposal (RFP).***Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required. Reference Appendix A, [1.20 Include Supportability Requirements in RFP Checklist](#T1_20) and [2.50.1 Manage T.O. Acquisition Program Checklist](#T2_50_1) and [2.37.13 Develop a DMSMS Program Checklist](#T2_37_13) and [2.37 PHS&T Checklist](#T2_37).

**4.37** ***Include Data Rights in the Request For Proposal (RFP).*** The AF should request all of the data rights entitled through government funding of development of the part or system. The contractor will need to provide a matrix identifying all data rights that they claim. The burden of proof that the contractor is allowed to retain rights to data is now on the contractor per [10 USC 2320](http://www.gpoaccess.gov/uscode/index.html) & [10 USC 2321](http://www.gpoaccess.gov/uscode/index.html). The contractor may want to offer up rights that they could otherwise retain to enhance their position during source selection. The actual rights received by the Air Force will result from negotiations.  All ACAT I and ACAT II programs, regardless of planned sustainment approach shall assess the long-term technical data needs (including product definition, operations, maintenance, installation and training data) and reflect that assessment in a Technical Data Rights Strategy. For the acquisition of engineering data reference [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/html/500002.htm) Enclosure 12. Also see [Product Data Acquisition (PDAQ) Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM) on PDAQ web page. Review LogEA CONOPS for compliance with architecture – creation of Operational / System / Technical View document may be required. Reference Appendix A, [1.20 Include Supportability Requirements in RFP Checklist](#T1_20)

**4.37.1** ***Review*** [***Berry Amendment***](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+10USC2533) ***for application to your program and ensure compliance in all contracting actions.***

**4.37.2** ***Include options for* *Radio-Frequency Identification (RFID) in the Request For Proposal (RFP).*** RFID is an automatic identification method, relying on storing and remotely retrieving data using devices called RFID tags or transponders. A significant thrust in RFID use is in enterprise supply chain management, improving the efficiency of inventory tracking and management. Ensure that provisions for RFID are considered for inclusion in the RFP.

**4.37.3** ***Include options for Item Unique Identification (IUID)*** ***in the Request For Proposal (RFP).*** IUID is **t**he set of data for tangible assets that is globally unique and unambiguous and ensures data integrity and data quality throughout life, and supports multi-faceted business applications and users. Ensure that provisions for IUID marking are included in the RFP to include marking of Support Equipment. IUID is integral to completion of program requirements for the Military Equipment Program Valuation (MEPV).

**4.37.4** ***Define Contractor Supported Weapon System (CSWS) Data Requirements.*** Reference Appendix A, [1.21.4 Define CSWS Data Requirements Checklist](#T1_21_4)

**4.38** ***Update supportability inputs to the Test and Evaluation Master Plan (TEMP).*** Reference Appendix A, [2.51 Identify and Plan Supportability Requirements for the TEMP Checklist](#T2_51).

**4.39** ***Update supportability inputs to the System Engineering Plan (SEP).*** The purpose of the SEP is to document the systems engineering planning effort guiding all technical aspects of the program. The SEP provides the overarching plan for bringing the hardware, software, and human sub-systems into an integrated System. It should be a living document, tailored to the program and should serve as a roadmap to support program management by defining comprehensive system engineering activities, addressing both government and contractor technical activities and responsibilities. Ensure HSI planning is documented in the SEP. Ensure Intelligence is integrated into systems engineering process, as applicable. Review LogEA CONOPS for compliance with architecture – creation of System View document may be required. The logistician needs to be included on the team to ensure Reliability, Availability, Maintainability and Cost (RAM-C), System Lifecycle Integrity Management (SLIM), and the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* are addressed during engineering analysis and documented in the plan. Item Unique Identification (IUID) implementation plan will be included in the SEP. See [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf), *Guide to Acquisition & Sustainment Life Cycle Management*. Reference Appendix A, [1.13 SEP Checklist](#T1_13), [3.11.1 SLIM Checklist](#T3_11_1) and [1.04 Accomplish Intelligence Integration throughout the Life Cycle Checklist.](#T1_04)

**4.39.1 *Address Human Systems Integration (HSI) Considerations.*** Reference Appendix A, [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1)

**4.40** ***Participate in Risk Management.*** A risk management approach for use in the acquisition of new systems, end- items, and equipment based upon four attributes: risk management planning, risk assessment, risk mitigation, and risk management control. When properly implemented, an effective risk management program facilitates identification of areas that require special attention and sets realistic, executable technical, schedule, and cost objectives. Risk Management is applicable to all phases and aspects of any acquisition or modernization program. The logistician needs to ensure the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* are addressed during cost, schedule, and technical performance risk assessments. Product Support areas that must be considered are: Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient and occupational) and Alternate Fuels considerations. These risk assessments must address adverse impacts on warfighters capabilities to operate, maintain and support the system in a safe and effective manner. Consideration must also be given to reclamation, demilitarization and disposal. Reference [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) *Guide to Acquisition & Sustainment Life Cycle Management* Chap 12 and Appendix A, [2.46 Participate in Integrated Baseline Review (IBR) Checklist](#T2_46) and [2.10.2 Address NEPA Requirements Checklist](#T2_10_2)

**4.40.1** ***Provide information as required to the Configuration Steering Board (CSB) for ACAT I & IA programs.*** See [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Para 9 d. and [CSB Template](https://www.my.af.mil/gcss-af/USAF/AFP40/d/s6925EC13430A0FB5E044080020E329A9/Files/editorial/CSB%20for%20Annual%20Review%20and%20Decoping.pptx)

**4.41** ***Include Logistics Activities in the Integrated Master Plan/Integrated Master Schedule (IMP/IMS).***Reference Appendix A, [1.23 Include Product Support Activities in the IMP/IMS Checklist](#T1_23).

**4.41.1** ***Ensure depot repair capability initiated.*** Depot repair capability should be established not later than 4 years after Initial Operational Capability (IOC).

**4.42** ***Prepare the documentation for Full Rate Production (FRP).*** Per [10 USC 2437](http://www.gpoaccess.gov/uscode/index.html), a [Replaced System Sustainment Plan](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5241551&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) must be developed. This plan is for the existing system that the system under development is intended to replace. Reference Appendix A, [4.42 Prepare the Documentation for FRP Checklist](#T4_42).

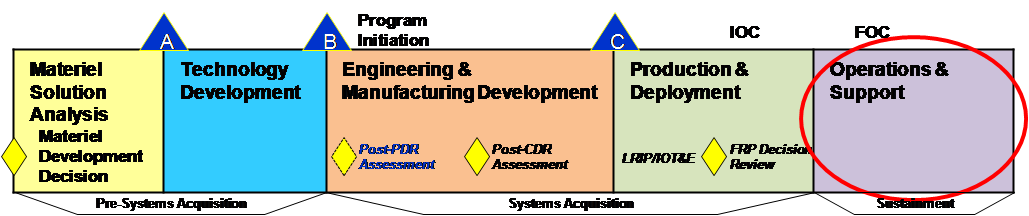
**4.42.1** ***Participate in Foreign Military Sales (FMS) activities (if applicable).*** The Secretary of Defense establishes military requirements and implements programs to transfer defense articles and services to eligible foreign countries through the Foreign Military Sales (FMS) Program, which is a part of Security Assistance. FMS cases require emphasis and special management attention to include logistics. Reference Appendix A, [4.42.1 Participate in FMS Activities Checklist](#T4_42_1).

**4.43** ***Update the Migration Plan (Continuous).***

**4.44** ***Participate in Source Selection.***

**Operations and Support**

The objective of this activity is the execution of a support program that meets materiel readiness and operational support performance requirements, and sustains the system in the most cost-effective manner over its total life cycle. Planning for this phase shall begin prior to program initiation and shall be documented in the Life Cycle Sustainment Plan (LCSP). Operations and Support has two major efforts, Life-Cycle Sustainment and Disposal. Following the Materiel Development Decision (MDD), the MDA may authorize entry into the acquisition management system at any point consistent with phase-specific entrance criteria and statutory requirements. For programs that enter at later points in the lifecycle management framework, ensure coverage of tasks in the previous chapters.



**Task Description**

**5.01** ***Award Production Contract*.**

**5.01.1** ***Ensure Weapon System Program Complies with Air Force Policy for no new Software System Development without AF/CIO Approval.*** This excludes Mission Critical Computer Resources (MCCR) and National Security Systems. Reference [AFPD 33-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD33-1.pdf), *Information Resource Management* and [AFI 33-141](http://www.e-publishing.af.mil/shared/media/epubs/AFI33-141.pdf) *AF IT Portfolio Management and IT Investment Review* Para 1.5. Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required.

**5.01.2** ***Contact the Air Force POC at ASC/ENV for special considerations regarding production accomplished at Government- Owned Contractor-Operated (GOCO) facilities.***

**5.02** ***Include the Supportability Requirements in Defense Contract Management Agency Memorandum of Agreement (DCMA MOA).*** MOA is similar in concept to PMA/EMA; reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16).

**5.03** ***Participate in Production Contract Oversight and Review.*** The logistician needs to participate in the Support Equipment Guidance Conference, understand the Deficiency Report (DR) process and participate in Configuration Control Boards (CCB).

**5.03.1** ***Accomplish Support Equipment (SE) Guidance Conference.*** Reference Appendix A, [2.47.1 Accomplish SE Guidance Conference Checklist](#T2_47_1) If conference was accomplished during Low Rate Initial Production (LRIP) this task is an update.

**5.03.2** ***Participate in the Deficiency Report (DR) Process.*** See [AFI 21-115(I)](http://www.e-publishing.af.mil/shared/media/epubs/AFI21-115(I).pdf) *Product Quality Deficiency Report Program* and Reference Appendix A, [2.47.2 Provide Logistics Support During the DR Process Checklist](#T2_47_2).

**5.03.3** ***Participate in the Configuration Control Board (CCB).*** See [AFI 63-131](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-131.pdf) *Modification Program Management*, [AFMC Pamphlet 63-104](http://www.e-publishing.af.mil/shared/media/epubs/AFMCPAM63-104.pdf) *IWSM Configuration Management Implementation Guide,* [MIL-HDBK-61A](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=202239) (SE) *Configuration Management Guidance.* Reference Appendix A, [2.47.3 Participate in the CCB Checklist](#T2_47_3).

**5.03.4** ***Accomplish the Provisioning Conference.*** If conference was accomplished during Low Rate Initial Production (LRIP) this task is an update. See [AFMCI 23-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-101.pdf) *Air Force Provisioning Instruction,* [AFMCI 23-104](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-104.pdf) *Functions and Responsibilities of the Equipment Specialist during Provisioning* and Reference Appendix A, [4.05.4 Accomplish Spares Provisioning Conference Checklist](#T4_05_4).

**5.04** ***Develop a Transition Support Plan (part of program transfer process)*.** A plan or agreement developed between the delivering product center and gaining ALC for a weapon system program transitioning from an acquisition to a sustainment portfolio. The plan identifies the terms and agreements for transfer, is approved by both the PEO and ALC/CC, and consists of a program description, readiness of sustainment elements for transfer, identification of responsibilities, milestones and timelines, transfer of applicable documents and notification of transfer. Ensure timely input of 3400 funding requirements into [Centralized Access for Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/). Reference Appendix A, [4.06 Program Transfer Checklist](#T4_06) and [5.25 Utilize CAM / CAFDEX Checklist](#T5_25)

**5.05** ***Complete Program Transfer Template for Program Executive Officer (PEO) Reviews.***This template outlines a collaborative (acquisition & sustainment), seamless, repeatable process that ensures a supportable program transition between acquisition and sustainment portfolios. The template can be adjusted as necessary to meet unique program information requirements. This template is required at the PEO review if program is within 2 years of established transfer date.

**5.06** ***Complete Supportability Reporting Template for Program Executive Officer (PEO) Reviews.*** The Portfolio Review is the culmination of a review process that starts at the program level, continues through the Wing/DRG and PEO levels, and culminates in a presentation to SAF/AQ, AFMC/CC, and AF/A4. The most detail will be provided at the Wing/DRG level, with summary data and significant issues only briefed at the PEO and SAF/AQ, AFMC/CC, AF/A4 levels. The Supportability Quad chart provides a summary of supportability/ sustainment planning activities to include: major players, transfer eligibility, sustainment funding, overall Supportability element status, and issues.

**5.07** ***Ensure supportability is included in Program Management / Expectation Management Agreements (PMA/EMAs).*** Reference Appendix A, [1.16 Ensure supportability Included in PMA/EMAs Checklist](#T1_16).

**5.07.1** ***Ensure weapon system is included in the appropriate annex of the Centralized Asset Management (CAM) Enterprise EMA.*** Contact AFMC/A4F Workflow. The CAM Enterprise EMA sets expectations and program objectives between HQ AFMC and Lead Commands. The weapon system annex documents the programs standards and SPM/PGM projections for capability. Both of these documents support CAM objectives for creating CAM Performance-Based Logistics for sustainment. Reference Appendix A, [4.08.1 CAM Enterprise EMA Checklist](#T4_08_1)

**5.08** ***Review the Logistics Activities in the Integrated Master Plan/Integrated Master Schedule (IMP/IMS).*** Reference Appendix A, [1.23 Include Product Support Activities in the IMP/IMS Checklist](#T1_23).

**5.09** ***Continue to Evaluate Contractor Delivered Data*.** Logistician should review logistics data including Commercial Off-The-Shelf and Contractor Data Requirements List. Other data to review is level of repair analysis,maintenance task analysis, reliability centered maintenance, engineering data,provisioning,maintenance check flight,etc. Reference Appendix A, [2.50 Evaluate Contractor Delivered Data Checklist](#T2_50) and [2.50.1 Manage T.O. Acquisition Program Checklist](#T2_50_1) and [2.37.13 Develop a DMSMS Program Checklist](#T2_37_13).

**5.10** ***Continue Sustainment Management Planning.*** Complete Sustainment Management Planning to develop an approved course of action based on balanced warfighter requirements to include updates to the Life Cycle Management Plan (LCMP), Centralized Asset Management (CAM) / Program Objective Memorandum (POM), System Engineering Plan (SEP), Performance Based Agreements (PBA), Program Management / Expectation Management Agreements (PMA/EMA), Supply/Maintenance Forecasting, Aircraft Structural Integrity Program (ASIP), Propulsion Structural Integrity Program (PSIP), Mechanical Equipment & Sub-systems Integrity Program (MECSIP) Force Structure Maintenance Plan (FSMP) and Requirements. This task includes strategies for sustainment management execution. Utilize the Next Generation CLS [Contract Sustainment Support Guide (CSSG)](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=11621638&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) for proven best practices in developing product support strategies. Reference Appendix A, [5.10 Update Product Support Strategy for Sustainment in LCMP Checklist](#T5_10), [5.11 Sustainment Systems Engineering Checklist](#T5_11) and [1.15.1.1 Unique Munitions Acquisition Activities Checklist](#T1_15_1_1).

**5.11** ***Ensure Sustainment Systems Engineering addressed.*** Reference Appendix A, [5.11 Sustainment Systems Engineering Checklist](#T5_11) and [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1).

**5.12** ***Execute Material Support for Sustainment Management****.* This includes AF Global Logistics Support Center (AFGLSC), Spares, Organic Manufactured Supply Items, Support Equipment/Automatic Test Systems, Contractor Supported Weapon System (CSWS), Technical Data, Government Furnished Property (GFP-MAT) and Weapon System Support Program (WSSP) and Defense Logistics Agency (DLA). Understand the Commodity Council’s role in the Supply Chain Management Strategy: They develop a sourcing strategy for commodities groups that are managed in Air Force GLSC. Reference Appendix A, [5.12 DLA Interface Checklist](#T5_12) and [3.09.1 WSSP Checklist](#T3_09_1)

**5.13** ***Ensure Contract for Sustainment (Organic, Commercial and Partnerships).*** Specifically includes contractor logistics support**.** The PSM must ensure appropriate management and control activities are in place to accommodate and address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues. This could include Systems Integration Service Contracts and Centralized Asset Management (CAM) / [Centralized Access for Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/) requirements. Reference Appendix A, [5.25 Utilize CAM / CAFDEX Checklist](#T5_25)

*Organic Maintenance*-Encompasses maintenance and other services performed at a DMAG funded Air Force organic facility. These organic facilities, shop equipment, support equipment, supplies, and spares are all owned by the government and all personnel are employed by the government. Reference [AFMCMAN 20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFMCMAN20-1.pdf) *Maintenance Planning and Execution System*.

*Contract Depot Level Maintenance* **-** Depot level maintenance performed by a commercial organization under contract with DMAG. Unless otherwise specified, this definition also includes contracts with other DOD organic industrial or contractual facilities contractor. Reference [AFMCMAN 20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFMCMAN20-1.pdf) *Maintenance Planning and Execution System*.

*Public-Private Partnership* *for Depot-Level Maintenance* - is a cooperative arrangement between an organic depot-level maintenance activity and one or more private sector entities to perform DOD or Defense-related work and/or to utilize DOD depot facilities and equipment. Other government organizations, such as program offices, inventory control points, and materiel/systems/logistics commands, may be parties to such agreements. Reference [DODI 4151.21](http://www.dtic.mil/whs/directives/corres/pdf/415121p.pdf) *Public-Private Partnerships for Depot-Level Maintenance*.

**5.14** ***Acquire full Supply Support capability*.** Includes management actions, procedures, and techniques necessary to determine requirements to acquire, catalog, receive, store, transfer, issue and dispose of spares, repair parts, and supplies. In layman terms, this means having the right spares, repair parts, and supplies available, in the right quantities, at the right place, at the right time, at the right price. Utilize the Supply Support Working Group (SSWG). The process includes provisioning for initial support, as well as acquiring, distributing, and replenishing inventories. “Full” refers to the attainment of the capability to effectively employ a weapon system, item of equipment, or system of approved specific characteristics, with the appropriate number, type, and mix of spares, repair parts and supplies necessary to operate, maintain, and support the system. Consider application of modeling, simulation and analysis tools. Consider product data requirements (reference [Product Data Acquisition (PDAQ) Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)). Use readiness based sparing tools (reference [AFMCMAN 23-1](http://www.e-publishing.af.mil/shared/media/epubs/AFMCMAN23-1.pdf)) for spares requirements determination to the greatest extent possible. If appropriate consider the impact of classified programs. Reference: [AFMCI 23-301](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-301.pdf), *Weapon System Supply Chain Management* and [AFMCI 23-106](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-106.pdf), *Initial Requirements Determination* and [AFMCI 23-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-101.pdf), *Air Force Provisioning Instruction.* Ensure hazardous materials authorizations are prepared and submitted to site/installation hazardous material management office. Reference Appendix A, [2.18.1 Consider application of modeling, simulation and analysis tools Checklist](#T2_18_1) and [1.09.1 Address Environmental Safety & Occupational Health Checklist](#T1_09_1)

***NOTE:*** For contractor supported systems ensure coverage of this task. Reference Appendix A, [4.05.4 Accomplish Spares Provisioning Conference Checklist](#T4_05_4).

**5.14.1** ***Execute Contract Requirements.***

**5.14.2** ***Monitor Contractor Spares Progress.***

**5.14.3** ***Monitor Contractor Delivery.***

**5.14.4** ***Receive Spares.***

**5.14.5** ***Monitor Spares Utilization.***

**5.14.6** ***Address Diminishing Manufacturing Sources & Material Shortages (DMSMS) Issues.***

**5.14.7** ***Respond to Deficiency Reports (DR).***

**5.15** ***Acquire full Support Equipment Capability*.** Includes acquiring equipment (mobile or fixed) required to support the operation and maintenance of a system. This includes ground handling and maintenance equipment, tools, metrology and calibration equipment, and manual and automatic test equipment. During the acquisition of systems, logistics managers are expected to decrease the proliferation of Support Equipment (SE) into the inventory by minimizing the development of new SE/ATS and giving more attention to the use of existing government or commercial equipment. “Full” refers to the attainment of the capability to effectively employ a weapon system, item of equipment, or system of approved specific characteristics, with the appropriate number, type, and mix of SE necessary to operate, maintain, and support the system. Consider application of modeling, simulation and analysis tools. Reference Appendix A, [2.37.3 Address SE/ATS Management Checklist](#T2_37_3) and [2.18.1 Consider application of modeling, simulation and analysis tools checklist](#T2_18_1).

***NOTE:*** For contractor supported systems ensure coverage of this task.

**5.15.1** ***Execute Contract Requirements.***

**5.15.2** ***Monitor Contractor Support Equipment (SE) Progress.***

**5.15.3** ***Monitor Contractor Delivery.***

**5.15.4** ***Receive Support Equipment (SE).***

**5.15.4.1**  ***Base Orders Support Equipment (SE) from Allowance Source Code list (MAJCOM).*** Unit submits Equipment Authorization (TACR/601) to the Logistics Readiness Squadron (LRS) Equipment Section for authorization to receive the equipment. Request is entered into AFEMS and sent to the Command Equipment Management Office (CEMO) for approval. CEMO will coordinate with the Command Functional for approval and forward to the allowance manager to add the stock number(s) to the allowance standard authorizing the LRS to order the item(s).

**5.15.4.2** ***Load Organization Code in Air Force Equipment Management System (AFEMS).***

**5.15.4.3**  ***Build Authorization Packages For Support Equipment (SE) Requirements.***

**5.15.4.4**  ***Build Support Equipment (SE) Readiness Plan (phasing schedule).***

**5.15.4.5** ***Customer places equipment on order through Equipment Management / Logistics Readiness Squadron (LRS).***

**5.15.5** ***Monitor Support Equipment (SE) Utilization.***

**5.15.6** ***Address Diminishing Manufacturing Sources & Material Shortages (DMSMS) Issues.***

**5.15.7** ***Respond to Deficiency Reports (DR).***

**5.16** ***Acquire full Training and Training Equipment Capability*.** Included training encompasses the policy, processes, procedures, techniques, training devices, and equipment used to train civilian and military personnel to acquire, operate and support a system. This includes individual and crew training, new equipment training, initial, formal, and on-the-job training. Though the greatest amount of training is accomplished just prior to the fielding of a system, it must be remembered that in most programs, a large number of individuals must also be trained during system development to support the system test and evaluation program. “Full” refers to the attainment of the capability to effectively employ a weapon system, item of equipment, or system of approved specific characteristics, with the appropriate number, type, and mix of trained personnel necessary to operate, maintain, and support the system.

***NOTE:*** For contractor supported systems ensure coverage of this task.

**5.16.1** ***Execute Contract Requirements.***

**5.16.2** ***Monitor Contractor Training Material / Equipment Progress.***

**5.16.3** ***Monitor Contractor Delivery.***

**5.16.4** ***Receive Training Material / Equipment.***

**5.17** ***Acquire updated Technical Orders*.** The TO Manager must ensure formal technical order update requirements are on contract (Technical Manual Contract Requirements (TMCR) Document) as a deliverable if required. The contractor must develop updates to the technical orders after all changes have been approved and incorporated IAW the TMCR. Reference Appendix A, [2.50.1 Manage T.O. Acquisition Program Checklist.](#T2_50_1)

**5.17.1** ***Execute Contract Requirements.***

**5.17.2** ***Monitor Contractor (Support Equipment, Depot and Remaining Field) Technical Orders / Manuals Progress.***

**5.17.3** ***Monitor Contractor Delivery.***

**5.17.4** ***Receive Technical Orders / Manuals.***

**5.17.5** ***Respond to Deficiencies.***

**5.18** ***Ensure a feedback loop is established between Maintenance and Supply.*** Information and Planning is critical on an ongoing basis to integrate Maintenance and Supply to accomplish availability requirements. Reference Appendix A, [5.10 Update Product Support Strategy for Sustainment in LCMP Checklist](#T5_10) and [5.18 Equipment Specialist Checklist](#T5_18)

**5.19** ***Deliver full Supply Support Capability*.** “Full” refers to the attainment of the capability to effectively employ a weapon system, item of equipment, or system of approved specific characteristics, with the appropriate number, type, and mix of spares, repair parts and supplies necessary to operate, maintain, and support the system. Deliver items to base in proper packaging per packaging data. Ensure hazardous materials authorizations are prepared and submitted to site/installation hazardous material management office.

**5.20** ***Deliver full Support Equipment Capability*.** “Full” refers to the attainment of the capability to effectively employ a weapon system, item of equipment, or system of approved specific characteristics, with the appropriate number, type, and mix of Support Equipment necessary to operate, maintain, and support the system. Deliver items to base in proper packaging per packaging data. Reference Appendix A, [2.37.3 Address Support Equipment Management Checklist](#T2_37_3)

**5.20.1** ***Commodity Council manages sustainment of Support Equipment (SE).***

**5.21** ***Deliver full Training And Training Equipment Capability*.** “Full” refers to the attainment of the capability to effectively employ a weapon system, item of equipment, or system of approved specific characteristics, with the appropriate number, type, and mix of trained personnel necessary to operate, maintain, and support the system. Deliver items to base in proper packaging per packaging data.

**5.22** ***Deliver updated Technical Orders if required by the Technical Manual Contract Requirements (TMCR) Document*.** Reference Appendix A, [2.50.1 Manage T.O. Acquisition Program Checklist](#T2_50_1).

**5.23** ***Continue to conduct Site Activation and Fielding (SATAF) as required*.** The SATAF is concerned with planning and activating each operational site and comprised of representatives from the using/operating command, the SPM, item managers, support equipment specialists, AETC, and the contractor. The SATAF provides on-site assistance and surveillance to facilitate operational testing and training, and develops a logistics support capability to include site activation plans. The senior logistician is normally delegated the responsibility to coordinate support planning for site activation. The tasks and milestones of site activation management will be detailed in Site Activation Plans and the support planning document. Ensure that feedback is obtained from base level environmental staff to be used in updated planning. Reference Appendix A, [4.14 Site Activation Task Force (SATAF) Checklist](#T4_14) and [2.11 Define and Implement MILCON Requirements Checklist](#T2_11).

**5.24** ***Continue* *the Depot Maintenance Working Group (DMAWG*).** See [AFMCI 21-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI21-101.pdf) *Depot Maintenance Activation Planning (DMAP)* and Reference Appendix A, [2.06 Establish DMAWG Team Checklist](#T2_06).

**5.24.1** ***Continue periodic Logistics Planning Meetings.*** The purpose is to coordinate and plan logistics management to ensure supportability of developed and fielded systems with all stakeholders. Logistics management reviews may be done in conjunction with program reviews.

**5.25** ***Review and update* *the Program Objective Memorandum (POM) and Budget Inputs for Supportability Requirements*.** Specifically include funding for Diminishing Manufacturing Sources and Material Shortages (DMSMS) programs and engineering projects. This should include inputs to Centralized Asset Management (CAM) / [Centralized Access for Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/) requirements. Reference Appendix A, [2.28 Include Supportability Requirements in POM submission Checklist](#T2_28) and [5.25 Utilize CAM / CAFDEX Checklist](#T5_25).

**5.26** ***Analyze Data from the Follow-On Test & Evaluation (FOT&E) and Force Development Evaluation (FDE) to Assess Supportability.***

**5.27** ***Ensure the Initial Operational Capability (IOC) Supportability Assessments are completed*.** IOC is usually defined as the first attainment of capability to employ effectively a weapon, item of equipment, or system of approved specific characteristics with the appropriate number, type, and mix of trained and equipped personnel necessary to generate, maintain and support the system. These assessments should provide key opportunities to identify design interface (hardware, software & human) issues that should be resolved to satisfy the required capabilities.

**5.28** ***Resolve supportability issues*.** As supportability issues surface, the Logistician must review and mitigate the issues to the benefit of the program. Consider application of modeling, simulation and analysis tools. Reference Appendix A, [2.18.1 Consider application of modeling, simulation and analysis tools Checklist](#T2_18_1). Utilize your Diminishing Manufacturing Sources and Material Shortages (DMSMS) program as established. Reference Appendix A, [2.37.13 Develop a DMSMS Program Checklist](#T2_37_12).

**5.29** ***Assess suitability to transfer System Program Manager (SPM) responsibility utilizing Transition Support Plan (TSP).***The PEO and gaining ALC/CC will formally evaluate the recommendation made by the SPM (in collaboration with the PSM). The review consists of a top-level analysis of program status to confirm program sustainment worthiness for transfer. The analysis includes a more in-depth review of the transfer criteria (excluding Foreign Military Sales (FMS)) and specifically a rating of the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*. This provides the PEO and ALC/CC with an indication of where the preponderance of program activity is occurring (on the acquisition or sustainment side). Based upon final analysis of the SPM recommendation, the PEO and ALC/CC will make a recommendation to the SAE and AFMC/CC. Suitable inputs must be in place in Centralized Asset Management (CAM) / [Centralized Access for Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/) for an effective transfer to take place. Reference Appendix A, [4.08.1 CAM Enterprise EMA Checklist](#T4_08_1) and [AFPAM 63-128](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=1661548&Function=ViewDocument&FolderID=OO-LG-AF-84-3&Filter=OO-LG-AF-84) *Guide to Acquisition & Sustainment Life Cycle Management*.

**5.30** ***Ensure Supportability included in Program Management / Expectation Management Agreements (PMA/EMAs)*.** Reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16).

**5.30.1** ***Ensure weapon system is included in the appropriate annex of the Centralized Asset Management (CAM) Enterprise EMA.*** Contact AFMC/A4F Workflow. The CAM Enterprise EMA sets expectations and program objectives between HQ AFMC and Lead Commands. The weapon system annex documents the programs standards and SPM/PGM projections for capability. Both of these documents support CAM objectives for creating CAM Performance-Based Logistics for sustainment. Reference Appendix A, [4.08.1 CAM Enterprise EMA Checklist](#T4_08_1)

**5.31** ***Reserved***

**5.32** ***Transfer System Program Manager (SPM) responsibility to Air Logistics Center (ALC)*** Execute the approved TSP. See[AFPAM 63-128](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=1661548&Function=ViewDocument&FolderID=OO-LG-AF-84-3&Filter=OO-LG-AF-84), *Guide to Acquisition & Sustainment Life Cycle Management* and Reference Appendix A, [4.06 Program Transfer Checklist](#T4_06).

**5.33** ***Manage sustainment business activities***. The process of establishing, maintaining, and enforcing business processes (finance, contracting, supplier selection, metrics, partnership strategies) which translate to rules for conducting business and align with business strategy, goals, & objectives. Utilize the Logistics Requirements Determination Process (LRDP) to ensure utilization of Centralized Asset Management (CAM) / [Centralized Access for Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/), FSIP, Life Cycle Systems Engineering (OSS&E, ASIP, and ENSIP). Reference [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) *Life Cycle Systems Engineering,* [AFMCI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI63-1201.pdf) *Implementing OSS&E and Life Cycle Systems Engineering*, [AFI 21-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI21-101.pdf) *Aircraft and Equipment Maintenance Management*, [AFI 21-129](http://www.e-publishing.af.mil/shared/media/epubs/AFI21-129.pdf) *Two Level Maintenance and Regional Repair of Air Force Weapon Systems and Equipment.* Reference Appendix A, [5.33 Manage Sustainment Business Activities Checklist](#T5_33). Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required.

**5.33.1** ***Participate in the Deficiency Report (DR) Process.*** Reference Appendix A, [2.47.2 Provide Logistics Support During the DR Process Checklist](#T2_47_2).

**5.33.2** ***Participate in the Configuration Control Board (CCB).*** See [AFI 63-131](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-131.pdf) *Modification Program Management* and [MIL-HDBK-61A](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=202239) (SE) *Configuration Management Guidance.* Reference Appendix A, [2.47.3 Participate in the CCB Checklist](#T2_47_3).

**5.34** ***Manage resources.*** Managing, maintaining, and resourcing (financial, manpower/personnel, spares, support equipment, technical data, and metrics) which ensure product availability.

**5.35** ***Manage information and communication activities.*** The Air Force Policy on standardized Information Technology (IT) systems does not allow individual programs to develop unique IT systems. The logistician should participate in the identification of any IT systems required for supportability. Reference Appendix A, [5.35 Manage Information & Communication Activities Checklist](#T5_35).

**5.36** ***Participate in Risk Management.*** A risk management approach for use in the acquisition of new systems, end- items, and equipment based upon four attributes: risk management planning, risk assessment, risk mitigation, and risk management control. When properly implemented, an effective risk management program facilitates identification of areas that require special attention and sets realistic, executable technical, schedule, and cost objectives. Risk Management is applicable to all phases and aspects of any acquisition or modernization program. The logistician needs to ensure the 12 Product Support Elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management* are addressed during cost, schedule, and technical performance risk assessments. Product Support areas that must be considered are: Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient and occupational), and Alternate Fuels considerations. These risk assessments must address adverse impacts on warfighters capabilities to operate, maintain and support the system in an effective and safe manner. Consideration must also be given to reclamation, demilitarization and disposal. Reference [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) *Guide to Acquisition & Sustainment Life Cycle Management* Chap 12 and Appendix A [2.46 Participate in Integrated Baseline Review (IBR) Checklist](#T2_46)

**5.36.1** ***Provide information as required to the Configuration Steering Board (CSB) for ACAT I & IA programs.*** See [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Encl 2, Para 9 d. and [CSB Template](https://www.my.af.mil/gcss-af/USAF/AFP40/d/s6925EC13430A0FB5E044080020E329A9/Files/editorial/CSB%20for%20Annual%20Review%20and%20Decoping.pptx)

**5.37** ***Perform Strategic Program Planning*.** During the O&S phase, the PM must plan for technology insertion programs, modification of subsystems and the weapon system, changes in flying hours, extension of useful life, and changes to support concepts. This planning is an iterative process and must be reviewed and updated as needed. The program manager will be responsible for planning the program with inputs from functional experts to include the POM, increment management and program / expectation management for sustaining a system or subsystem. Reference Appendix A, [2.28 Include Supportability Requirements in POM submission Checklist](#T2_28).

**5.38** ***Perform Intelligence integration during operation and support phase.*** Coordinate with the intelligence office to obtain threat assessments as necessary to ensure the system remains mission effective and survivable throughout its life cycle. Reference Appendix A, [1.04 Accomplish Intelligence Integration throughout the Life Cycle Checklist](#T1_04) and [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1) for unique HSI overlaps that may influence the intelligence integration.

**5.39** ***Conduct Sustainment Reviews.*** For Sustainment Program Reviews, ensure the Supportability Reporting Charts in the PEO/DAC Portfolio Review are validated. Other potential reviews: Product Improvement Working Group (PIWG), Corrosion Prevention Advisory Board (CPAB), Software Working Group (SWG), Reliability Centered Maintenance (RCM), Weapon System Review (WSR), System Safety and Material Safety Task Group (MSTG), Acquisition Sustainment Review (ASR) and Cockpit Working Group (CWG).

**5.39.1** ***Re-accomplish the Depot Source of Repair (DSOR) process as required for fielded systems.*** The DSOR process is used to reassess prior DSOR decisions when major changes occur that could potentially affect previous DSOR decisions (e.g., major changes in the length of a program’s life cycle, major modifications, significant increases in cost (>20%), quantities of fielded systems (>20%), etc.) For fielded systems, the DSOR process will be initiated as soon as the change in posture is considered. The DSOR consists of SSOR (if applicable), SORAP, and DMI. DSOR is the method by which depot maintenance posturing decisions for both hardware and software are made. It applies to both new acquisition and fielded programs. DMI is to determine if a DOD depot repair capability already exists (Army, Navy, or Marines). DMI support shall be utilized and provided to the maximum extent possible commensurate with effective support to operational forces and efficient utilization of the Services' depot maintenance resources. All weapon systems, end items, and their components that require or are planned for depot level maintenance require a DSOR analysis be completed per [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) *Acquisition & Sustainment Life Cycle Management*. Funds shall not be committed to facilitate a specific site for depot maintenance prior to the DMI study. For systems that are entering the Air Force that have already had a DMI study done (other DOD services) then a DMI does not need to be re-accomplished. Verify with HQ AFMC/A4D if a DMI study has been done. Reference Appendix A, [2.04 Initiate the DSOR Process Checklist.](#T2_04)

**5.40** ***Ensure supportability is included in Program Management / Expectation Management Agreements (PMA/EMAs).*** Reference Appendix A, [1.16 Ensure Supportability Included in PMA/EMAs Checklist](#T1_16).

**5.40.1** ***Ensure weapon system is included in the appropriate annex of the Centralized Asset Management (CAM) Enterprise EMA.*** Contact AFMC/A4F Workflow. The CAM Enterprise EMA sets expectations and program objectives between HQ AFMC and Lead Commands. The weapon system annex documents the programs standards and SPM/PGM projections for capability. Both of these documents support CAM objectives for creating CAM Performance-Based Logistics for sustainment. Reference Appendix A, [4.08.1 CAM Enterprise EMA Checklist](#T4_08_1)

**5.41** ***Perform data management*.** Data management is the process of applying policies, procedures, and tools for the identification and control of data requirements, for assuring the adequacy of data and for facilitating the timely, economical acquisition and availability of data, including digital delivery or access. In simple terms, data management is the process for the acquisition of data (access or delivery) through contractual vehicles, so that data is available for use by authorized users. The type of data to which this applies includes research & development, acquisition, and logistics / technical order (TO) information. Data managers plan for acquisition and management of defense system data during each phase of the system life cycle. Data management planning supports the defense system program acquisition, logistics support and integrated product/process team strategies; and the information processing infrastructure of the program office, supporting organizations, and field operations (i.e., data users). The logistician needs to ensure logistics data requirements including data requirements for support equipment are identified and incorporated into the appropriate contractual vehicles. Consider product data requirements (reference [Product Data Acquisition (PDAQ) Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)). Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required.

**5.41.1** ***Manage Technical Order (T.O.) sustainment***. The Flight Manual Manager for a weapons system will conduct a Flight Manual Review Conference (FMRC) at least annually unless the using commands agree to delay IAW [AFI 11-215](http://www.e-publishing.af.mil/shared/media/epubs/AFI11-215.pdf) *USAF Flight Manuals Program (FMP)*. Technical Order sustainment conferences are addressed by T.O. 00-5-3, *AF Technical Order Life Cycle Management* paragraph 7.7 *Technical Order Post Publication Reviews.* Perform post-publication reviews to evaluate and improve formal T.O.s after delivery to the using command. Reference Appendix A, [5.41.1 Manage TO Sustainment Checklist.](#T5_41_1)

**5.41.2** ***Continue collecting and refining data to support System Lifecycle Integrity Management (SLIM)****.* Manage O&M Data which records how the equipment is used, maintained and identify environmental conditions the system is exposed to during its life cycle. Collect data such as:

-- How manufactured, employed/operated, maintained and modified

-- Thermal, humidity and vibration environmental data

The purpose is to predict the Remaining Usable Life (RUL) of an installed component. Reference Appendix A, [2.37.12 Implement SLIM Processes and Programs Checklist](#T2_37_12), [3.11.1 SLIM Checklist](#T3_11_1) and [5.41.2 SLIM Checklist](#T5_41_2).

**5.42** ***Implement Sustainment Systems Engineering.*** Focusing on the operational requirements of the system, both Peace time and war time scenarios. Create a plan to use systems engineering resources to address the operational requirements. Reference Appendix A, [5.11 Sustainment Systems Engineering Checklist](#T5_11) and [1.13.1 Human Systems Integration (HSI) Checklist](#T1_13_1).

**5.43** ***Ensure Depot Activation Accomplished.* *(not later than four years after Initial Operating Capability (IOC)).*** For commercial derivative aircraft, ensure Federal Aviation Administration (FAA) certified personnel / facilities are in place. Reference the [5 Jan 2010 FAA Memorandum](https://afkm.wpafb.af.mil/asps/DocMan/Process/ProcessDOCFunctions.asp?DocID=3539184&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) “*DOD Requesting Part 145 Repair Station Certification*”.

**5.44** ***Determine Supply Requirements.***Using the appropriate system, the logistician must determine the proper mix of replenishment spare buy and repair requirements to support the users. Consider application of modeling, simulation and analysis tools. Reference Appendix A, [2.18.1 Consider application of modeling, simulation and analysis tools Checklist](#T2_18_1).

**5.45** ***Coordinate Supply Requirements for Defense Logistics Agency (DLA) Managed Items.*** Using the appropriate systems, DLA responds to requirements generated from AF established supply levels (SBSS, DO35, Customer Oriented Leveling Technique (COLT), future ECSS)) as well as coordinated increases and decreases which are forecasted on a monthly basis for up to five years. These processes are addressed in [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf), *USAF Supply Manual*, and executed by the AF Global Logistics Support Center (AFGLSC).

**5.46** ***Obtain and renew supply sources****.* Maintenance and supply sources must continuously be reviewed and updated as the program evolves during the O&S phase. Consider application of modeling, simulation and analysis tools. Reference Appendix A, [2.18.1 Consider application of modeling, simulation and analysis tools Checklist](#T2_18_1).

**5.47** ***Deliver Asset*.** The process of delivering products to the customer. This specifically includes packaging, handling, storage and transportation (PHS&T), Installation and product inventories. Reference Appendix A, [2.37 PHS&T Checklist](#T2_37)

**5.48** ***Manage Computer Resources.*** The support (logistics) to manage computer resources can include funding configuration control support to the appropriate Air Logistics Centers’ Software Control Center (SCC), ensuring Software/System Integration Labs (SIL)s with the appropriate weapon system assets are supported, ensuring the appropriate level of technical expertise and plans for developing new expertise is established, and ensuring appropriate net-centric integration between the weapon system and the Government Network Operations Center (GNOC) or local Communications Squadron. A mix of contractor and organic capability is very healthy for a weapon system as long as interfaces, schedules, and expectations between contractors are clearly defined. The logistician participating in the Computer Resource Working Group (CRWG - see Para. 2.21) should also ensure planning for technology refresh and software/system updates make sense when comparing them to industry standards and maintaining levels of expertise. Reference Appendix A, [2.21 Participate in the CRWG or the CR-IPT Checklist.](#T2_21)

**5.49** ***Manage Supply / Support Equipment (SE) Sustainment*.** Sustainment materiel consists of replenishment spares (both consumable items and reparable spares), item repair, and other related services. It excludes item and system modification, research and development, test and evaluation, and system acquisitions. This activity is usually applicable to sustainment PRs generated at Air Logistics Centers, irrespective of where the contracting action will take place. Ideally, purchase action for sustainment materiel is initiated based on anticipated need rather than an immediate requirement. AFMC requirements computation systems consider PR and contracting lead times to produce buy notices in theoretically sufficient time to meet the need date. Subject to funds availability, PR initiators and supporting specialists will initiate and process PRs in a timely manner such that the customer's need date may be met. In order to minimize the inventory levels computed by the requirements systems, all involved persons will continually strive to minimize the total acquisition lead-time for all buys. Contact the Defense Logistics Agency (DLA) for DLA managed items. Ensure hazardous materials authorizations are prepared and submitted to site/installation hazardous material management office. Review LogEA CONOPS for compliance with architecture – creation of Operational / System / Technical View document may be required. Reference Appendix A, [2.37.3 Address Support Equipment Management Checklist](#T2_37_3), [2.37.13 Develop a DMSMS Program Checklist](#T2_37_13), and [2.37.14 Develop Supply Support Strategy Checklist](#T2_37_14).

**5.49.1** ***Manage Support Equipment (SE) Requirements System.***

**5.49.2** ***Ensure MAJCOM prioritizes requirements.***

**5.49.3** ***Ensure MAJCOM Prioritized list sent to WR-ALC 585 CBSS.***

**5.49.4** ***Ensure Centralized Asset Management (CAM) funds applied.***

**5.49.5** ***Ensure Air Logistics Center executes list*.**

**5.49.6** ***Ensure Support Equipment (SE) ordered.***

**5.49.7** ***Execute Support Equipment (SE) repair process.***

**5.50** ***Establish return process.*** The process initiated by the customer of returned material deemed defective/unserviceable. This includes any applicable warranty process, contractor procedures, Deficiency Report (DR) exhibits, unserviceable reparables; life limited parts, condemnations, disposal actions. Reference Appendix A, [2.47.2 Provide Logistics Support During the DR Process Checklist](#T2_47_2) and [5.67 Disposal Checklist](#T5_67).

**5.51** ***Disposition / reutilization of Parts Asset (piece parts).*** Once items fail completely, or are modified out of use, they need to be disposed of. If the item is cataloged, the determination of what is required to make the item safe (non hazardous), and how to demilitarize is determined, and documented. If the items are not cataloged, it is the responsibility of the Program Office to ensure determination is made on what must be declassified, made safe, and demilitarized per Air Force and DOD directives. The owning organization must declassify and make the item safe before it can be turned over to DLA Disposition Services. The program Office must program for the manpower to declassify (if appropriate), and make the item safe (include the cost of work and cost for disposal of hazardous material). DLA Disposition Services can demilitarize some assets, but the developer of the item must provide demilitarization instructions. Reference Appendix A, [5.67 Disposal Checklist](#T5_67).

**5.52** ***Ensure Maintenance Check Flight Activities are performed.*** Once depot maintenance repairs have been completed a maintenance check flight is required to ensure aircraft is operational. The maintenance operations center and quality assurance are responsible for scheduling the functional check flight per TO 1-1-300. Quality assurance will brief the crew on the purpose, previous maintenance problems and discrepancies, and documentation requirements.

**5.53** ***Execute Maintenance / Repair*.** This is the process of performing maintenance and repair, organic and contractor, or minor modifications/upgrades to provide operational end items. Examples include: Back-shop work, local organic manufacturing, Programmed Depot Maintenance, Maintenance, Software upgrades/updates, Small project/modification (non ACAT) upgrades, Technical Data, Tests/Verify, and Kit proofing.

**5.54** ***Manage Organic Repair.***  If the program is designated to be maintained by organic repair, ensure the capabilities are in place to support the requirements generating from the warfighter. End item flow days, material, and cost must be negotiated for each end item. The monitoring of end item production must be maintained to ensure support is being maintained at levels sufficient to support the warfighters.

**5.55** ***Manage Contract Repair.***If the program is designated to be maintained by contract repair, ensure the contract actions are in place to support the requirements generating from the warfighter. Contract end item flow days, material, and cost must be negotiated for each end item on the contract. The monitoring of end item production must be maintained to ensure support is being maintained at levels sufficient to support the users.

**5.56** ***Develop a Modification Program.***An alteration to a Configuration Item (CI) applicable to aircraft, missiles, support equipment, ground stations software (imbedded) trainers, etc. As a minimum, the alteration changes the form, fit, function or interface of the item. There are two types of modifications, temporary and permanent, which can be made to Air Force weapon systems. A weapon system is defined as a combination of elements that function together to produce the capabilities required to fulfill a mission need, including hardware, equipment, software, users, maintainers, support personnel and all Product Support elements, but excluding construction or other improvements to real property. Ensure a PSM is assigned for modifications meeting ACAT I and II levels. Ensure Intelligence is consulted regularly for information on emerging threats that might drive a modification. Ensure that the Systems Engineering Plan and System Specification are updated for the modification. The logistician must participate through Design Interface in the Systems Engineering process as applied to the modification. Ensure energy efficiency and alternate fuels considerations are addressed. Logisticians must address the impact of modifications to all 12 Product Support elements listed in [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), *Acquisition & Sustainment Life Cycle Management*. Formal major modifications should reiterate the acquisition process and return to the appropriate acquisition phase in the ASTK. Reference Appendix A, [2.10.1 Determine Manpower and Personnel Requirements Checklist](#T2_10_1) and [5.56 Modification Management Checklist](#T5_56).

**5.56.1** ***Manage Time Compliance Technical Order (TCTO) Process.*** Reference Appendix A, [5.56.1 Manage TCTO Process Checklist](#T5_56_1).

**5.57** ***Acquire Modification Source.***Multiple-year contracting techniques should be used to the maximum extent possible. Multiple-year techniques permit the continuation of a contractual relationship beyond the initial year. They include, but are not limited to, multiple-year contracts and single-year contracts with priced options for follow-on years. Contract should be structured so that award or option exercise fits into an appropriate schedule, taking into account whether the key awards should be tied to key milestones (in order to have leverage with the contractor), mod/kit installation schedule, prime and subcontractor’s rate production capability, etc.

**5.58** ***Design, Integrate, and Test the Modification.*** Note: For major modifications, return to the beginning of this guide and perform the necessary acquisition and sustainment processes.

**5.59** ***Perform Trial Install/Kit Proof*.** Kit proofing is accomplished to verify form, fit, and function of the kit hardware and software, validate man-hour requirements, and verify Time Compliance Technical Order (TCTO) and Technical Order (TO) changes. The kit proof kit is the first production kit. Trial installation is the first install of a kit into a weapon system to validate performance of the modification.

**5.60** ***Perform Modification System Level Test*.** System level testing must be conducted to determine whether or not the installation of the modification produces negative impacts on the operation of the weapon system or other subsystems on board the weapon system.

**5.61** ***Initiate Modification Kit Production and Installation*.** After successful Kit Proofing/Trial Installation, the contractor should be notified to being full rate production of the kits required to complete the modification. When the kits are delivered, kit installation should be established in accordance with the install schedules developed.

**5.62** ***Update the Weapon System Support Program (WSSP) Database.*** Reference Appendix A, [3.09.1 WSSP Checklist](#T3_09_1)

**5.63** ***Verify Decision on System Disposition*.** Using information such as useful service life, operational tempo, etc, the Logistician will work with the Major Commands to develop the disposition strategy for all systems.

**5.64** ***Verify Decision on Unit Disposition*** *(****aircraft tail*** *#).* TheLogistician will work with AF/A8 to identify by tail number all aircraft being removed from the inventory and will annotate those tail numbers in the Migration Plan.

**5.65** ***Determine Drawdown Strategy for Support Structure*.** As aircraft are scheduled for disposal, the PM must work with the MAJCOM on disposition of all weapon system support infrastructure to include spares, technical orders, training equipment, support equipment, specialized containers, facilities, supply parts, manpower and personnel, environmental cleanup etc. Care must be taken to ensure all designated assets and infrastructure is removed from bases. Coordinate with the Defense Logistics Agency (DLA) on maintenance and disposal, ALC packaging office on packaging issues.

**5.65.1** ***Provide Support Equipment (SE) Disposition*** *(****item manager or MAJCOM****)*. Reference Appendix A, [2.37.3 Address Support Equipment Management Checklist](#T2_37_3) and [5.65.1 Provide Support Equipment Disposition Checklist](#T5_65_1).

**5.65.2** ***Send Support Equipment (SE) to Depot.***

**5.65.3** ***Fill Support Equipment (SE) Base Shortages*.**

**5.65.4** ***Send Support Equipment (SE) to Defense Reutilization Management Service (DRMS).***

**5.66** ***Update the Migration Plan*** *(****annual****).* The system manager will develop/revise a migration plan for each Mission Design Series (MDS) on an annual basis and document it in a formal Migration Plan at the end of each fiscal year. Migration planning is a dynamic process that must incorporate numerous factors that impact weapon system sustainment, contingency planning, FMS sales, etc. The Migration Plan itself is a *living document* that reflects the system manager changing assessment of MDS/block changes, funding levels, and strategies to use storage aircraft to maximize support for the operational fleet. The annual review should include an evaluation of aircraft programmed for induction into AMARG and those in inviolate, spares support, and excess AMARG storage categories with the overall goal of placing aircraft into programmed reclamation at the earliest possible time in order to offset spare parts buy requirements. Aircraft can be placed into programmed reclamation at the time of induction in order to maximize harvesting of serviceable parts common to operational aircraft. Identification of the specific aircraft serial numbers is required in order to affect current aircraft storage code changes. Aircraft status code changes can occur at anytime a need dictates a change in status code reporting. Ensure budget requirements to execute the strategy are input into [Centralized Access for Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/). Reference Appendix A [5.25 Utilize CAM / CAFDEX Checklist](file:///E:\AS%20Tool%20Kit\25-29%20Jan%2010%20SCO\ASTK\AS_Kneepad_Checklist%20working%20draft.docx#T5_25). This includes long term facilities storage requirements. Reference [Logistics Requirements Determination Process (LRDP)](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11)

**5.67** ***Execute the disposition strategy*.** Coordinate with DLA on maintenance and disposal actions. Reference Appendix A, [5.67 Disposal Checklist](#T5_67).

1.03 Define Supportability Objectives

1.04 Accomplish Intelligence Integration throughout the Life Cycle

1.05 Review Initial Capabilities Document (ICD) for supportability

1.06 Include Product Support Capabilities in Analysis of Alternatives (AoA) Plan

1.09.1 Address Environmental Safety & Occupational Health

1.10 Include Product Support Capabilities in Preferred System Concept

1.13 Participate in Systems Engineering Plan (SEP) Development

1.13.1 Address Human Systems Integration (HSI)

1.14 Develop Technology Development Strategy to Include Product Support

1.15 Develop Initial Product Support Strategy in Life Cycle Management Plan (LCMP)

1.15.1.1 Unique Munitions Acquisition Activities

1.16 Ensure Supportability Included in Program Management / Expectation Management Agreements (PMA/EMA)

1.17 Include Supportability in the Source Selection Plan (SSP)

1.20 Include Supportability Requirements in Request for Proposal (RFP)

1.23 Include Product Support Activities in Integrated Master Plan / Integrated Master Schedule (IMP) / (IMS)

1.21.4 Define Contractor Supported Weapon System (CSWS) Data Requirements

1.25 Ensure Cost Estimate includes Support Costs

1.26 Prepare Documentation for Milestone A

2.02.1 Establish a Technical Order Acquisition Program

2.04 Initiate the Depot Source of Repair (DSOR) Process

2.06 Establish Depot Maintenance Activation Working Group (DMAWG) Team

2.10 Facilities Concept Checklist

2.10.1 Determining Manpower and Personnel Requirements

2.10.2 Address National Environmental Policy Act

2.11 Define and Implement Military Construction (MILCON) Requirements

2.18 Refine Supportability Objectives

2.18.1 Consider Application of Modeling, Simulation and Analysis (MS&A) Tools

2.21 Participate in the Computer Resources Working Group (CRWG) or the Computer Resources Integrated Product Team (CR-IPT)

2.22 Review Capabilities Development Document (CDD) for supportability

2.23 Develop Supportability Key Performance Parameters (KPPs)

2.24.1 Design Interface for Life Cycle Logistics

2.25 Include Supportability Requirements in CARD, POE, CCA, ICA, Affordability Assessments

2.27 Include Supportability in the Acquisition Program Baseline (APB)

2.28 Include Supportability Requirements in Program Objectives Memorandum (POM) Submission

2.29 Refine Product Support Strategy in LCMP

2.35 Participate in SRR (Demonstrate Concepts)

2.37 Packaging, Handling, Storage & Transportation (PHS&T)

2.37.1 Develop and Acquire Supportability Data

2.37.2 Address Automated Test Systems (ATS) Acquisition

2.37.3 Address Support Equipment Management

2.37.4 Calibration Support for New Acquisitions

2.37.6 Support Equipment Recommendation Data (SERD) process

2.37.12 Implement System Lifecycle Integrity Management Processes and Programs

2.37.13 Develop a Diminishing Manufacturing Sources and Material Shortages (DMSMS) Program

2.37.14 Develop Supply Support Strategy

2.37.15 Contract Data Requirements List (CDRL)

2.46 Integrated Baseline Review

2.47.1 Accomplish Support Equipment (SE) Guidance Conference

2.47.2 Provide Logistics Support During the Deficiency Reporting (DR) Process

2.47.3 Participate in the Configuration Control Boards (CCB)

2.47.4 Accomplish Spares Provisioning Guidance Conference

2.49 Baseline Product Support Strategy in LCMP

2.50 Evaluate Contractor Delivered Data (Including COTS and CDRLs)

2.50.1 Manage Technical Order Acquisition Program

2.50.4 Establish and Manage Training Systems

2.51 Identify & Plan Supportability Requirements for the TEMP

2.54 Participate in System Requirements Review (SRR) (System Specification)

2.58 Participate in System Functional Review (SFR)

2.59 Participate in Preliminary Design Review (PDR)

2.62 Prepare Documentation for Milestone B

3.09.1 DLA Weapon System Support Program (WSSP)

3.11.1 Ensure data to support System Life Cycle Integrity Management (SLIM) is addressed

3.12 Participate in Critical Design Review (CDR)

3.13 Prepare Documentation for Post-Critical Design Review (CDR) Assessment

3.17 Participate in Test Readiness Review (TRR)

3.21 Update Product Support in Life Cycle Management Plan (LCMP)

3.30 Review Capability Production Document (CPD) for supportability

3.32 Participate in the Functional Configuration Audit (FCA)

3.33 Participate in System Verification Review (SVR) and Program Readiness Review (PRR)

3.37 Prepare Documentation for Milestone C

4.05.4 Accomplish Spares Provisioning Conference

4.06 Program Transfer

4.08.1 Centralized Asset Management Enterprise Expectation Management Agreement

4.14 Participate in Site Activation Task Force (SATAF)

4.27 Participate in Operational Test Readiness Review (OTRR)

4.31 Participate in Physical Configuration Audit (PCA)

4.42 Prepare Documentation for Full Rate Production (FRP) Decision

4.42.1 Participate in Foreign Military Sales (FMS) Activities

5.10 Update Product Support Strategy for Sustainment in Life Cycle Management Plan (LCMP)

5.11 Sustainment Systems Engineering

5.12 Execute Material Support for Sustainment Management – Defense Logistics Agency (DLA) Interface

5.18 Equipment Specialist Checklist

5.25 Utilize Centralized Asset Management (CAM) / Centralized Access for Data Exchange (CAFDEx)

5.33 Manage Sustainment Business Activities

5.35 Manage Information & Communication Activities

5.41.1 Manage Technical Order (TO) Sustainment

5.41.2 Continue Collecting and Refining Data to support System Life Cycle Integrity Management (SLIM)

5.56 Modification Management (AF Form 1067)

5.56.1 Manage Time Compliance Technical Order (TCTO) Process

5.65.1 Provide Support Equipment Disposition

5.67 Disposing of Weapon System, Major end items and associated components

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [1.03](#P1_03) | Define Supportability Objectives | | Capabilities Based Analysis  AoA Study Guidance  Acquisition Decision Memorandum(s) (ADM)  Joint Capabilities Document (JCD)  Initial Capabilities Document (ICD)  Capability Required and Operational Concept  Key Performance Parameters (KPPs)  Target Audience Description (TAD) | |
| **DESCRIPTION:** | | | | |
| The supportability objectives checklist provides guidance to define the supportability analysis for the program. The supportability analysis is an analytical tool, conducted as part of the systems engineering process to determine the most cost-effectively support of the system over its entire life cycle. It provides the basis for related design requirements to include Technical Orders (TO) s, Support Equipment (SE), Packaging, Handling, Storage & Transportation (PHS&T), Reliability, Availability, Maintainability & Cost (RAM-C), System Lifecycle Integrity Management (SLIM), Producibility, Interoperability and Maintenance Concept that may be included in specifications. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Ensure a logistician is involved on the team that develops the Systems Engineering Plan 2. Interpret User Needs including Human Systems Integration (HSI) implications, constraints, and issues and develop strategy for addressing. For additional assistance contact your MAJCOM HSI cell or 711 HPW/HP 3. Consider TOs, SE and PHS&T, Reliability, Availability, Maintainability & Cost (RAM-C), SLIM; reference task 1.03.1, Producibility, Facilities/Infrastructure, Interoperability, Supply Support, Item Unique Identification (IUID) and Maintenance Concept that may be included in specifications. 4. Ensure consistency with Air Force Logistics Enterprise Architecture (AFLMA) 5. Analyze Operational Capabilities & Constraints 6. Develop Concept Performance (& Constraints) Definition & Verification Objectives 7. Decompose Concept Functional Definition into Component Concepts & Assessment Objectives 8. Develop Component Concepts 9. Ensure Intelligence supportability analysis is conducted 10. Ensure program protection process is accomplished   Note: Review LogEA CONOPS for compliance with architecture  **Sample Documents:**  [SEP Document Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=76048&Function=ViewDocument&FolderID=OO-DR-PM-R2-5&Filter=OO-DR-PM-R2)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | [CJCSI 3170.01G](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3170_01.pdf) Joint Capabilities Integration and Development System.  [Systems Engineering Plan (SEP) Outline](http://www.acq.osd.mil/se/docs/PDUSD-Approved.SEP_Outline-04-20-2011.docx)  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf)  Starting at page 7  [Defense Acquisition Guidebook](https://akss.dau.mil/dag/) (See Chapters 2, 4, and 6)  [DOD 4140.1-R](http://www.dtic.mil/whs/directives/corres/pdf/414001r.pdf) DOD Materiel Management Regulation  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Designing and Assessing Supportability in DOD Weapon Systems (A Guide to Increased Reliability and Reduced Logistics Footprint)](http://www.acq.osd.mil/dte/docs/FINAL-GUIDE-with-Memo-October24-1.pdf) (See Chapter 3, but peruse entire document for further information)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management Para 1.5.1.6, 3.19, & 3.88  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities Based Requirements Development Document This document supports the JCIDS process  [MIL-HDBK-502](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=201462) DOD Acquisition Logistics General information document on Acquisition Logistics  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [DODD 5200.39](http://cryptome.org/dodi-5200-39.pdf) Critical Program Information (CPI) Protection Within the Department of Defense  [DOD 5200.1-M](http://www.dtic.mil/whs/directives/corres/pdf/520001m.pdf) Acquisition Systems Program Protection - Entire document  [AFPAM 63-1701](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-1701.pdf)  Program Protection Planning - Entire document  [Target Audience Description Guide](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3539339&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [AFI 32-1021](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-1021.pdf) Planning and Programming Military Construction (MILCON) Projects  [AFI 32-1032](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-1032.pdf) Planning and Programming Appropriated Funded Maintenance , Repair and Construction Projects  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [DODI 8320.04](http://www.dtic.mil/whs/directives/corres/pdf/832004p.pdf) Item Unique Identification (IUID) Standards for Tangible Personal Property  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf) | | Materiel Solution Analysis |
| **EXIT CRITERIA:** | | | | |
| Systems Engineering Plan (SEP) | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [1.04](#P1_04) | Accomplish Intelligence Integration throughout the life cycle | See documents listed in tasks 2-7 | |
| **DESCRIPTION:** | | | |
| The Intelligence integration checklist provides guidance to properly integrate intelligence throughout the life cycle. It defines the Intelligence supportability analysis (ISA) for the program. ISA is an analytical process performed by the Intelligence professionals, conducted as part of the systems engineering process to influence design and requirements. Early and complete intelligence analysis is key to reducing cost, schedule, and performance risk to programs and other activities dependent upon intelligence data, infrastructure, and threat support. Include Human Systems Integration considerations for the intelligence support to provide input to key documents. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensure your AFMC field Intelligence Office is contacted to review and/or provide input to the following documents/processes throughout the life cycle. Failure to accurately integrate intelligence may lead to scheduling delays, cost overruns, and decreased operational capabilities. Assistance for human related issues such as cognitive data fusion is available from your MAJCOM HSI cell or 711 HPW/HP 2. Pre-Materiel Solution Analysis   Intelligence provides input to  -CBA and pre-MDD analyses   1. Materiel Solution Analysis phase   Intelligence provides input to  -CRRA process  -supportability objectives  -ICD  -AOA  -Initial technology review  -Threat documentation  -Draft CDD  -preferred system concept  -Preliminary Systems Spec  -T&E strategy  -System Engineering Plan (SEP)  -risk management  -Program Protection Plan (PPP)   1. Technology Development Phase   Intelligence provides input to  -AOA update  -Threat documentation  -CDD  -Systems Performance Spec  -TEMP  -System Engineering Plan (SEP) update  -risk management  -operational site reviews  -Information Support Plan (ISP)  -System Requirement Review (SRR)  -Draft LCMP  -Program Protection Plan (PPP)  -Life Cycle Cost Estimate (LCCE)   1. Engineering & Manufacturing Development phase   Intelligence provides input to  -Threat documentation  - CPD  -Systems Performance Spec  - Manpower & Cost Estimate updates  -TEMP  -HSI planning update  -System Engineering Plan (SEP) update  -risk management update  -Information Support Plan (ISP)  -System Requirement Review (SRR)  -SFR  -PDR  -CDR  -TRR  -SVR  -LCMP update  -Program Protection Plan (PPP) update  -Life Cycle Cost Estimate (LCCE) update  -Modeling and simulation   1. Production and Deployment phase   Intelligence provides input to  -Threat documentation  -Operational Test Readiness Review (OTRR)  -Manpower & Cost Estimate updates  -TEMP update  -HSI updates  -System Engineering Plan (SEP) update  -Risk Management update  -LCMP update  -Program Protection Plan (PPP) update  -Life Cycle Cost Estimate (LCCE) update  -Modeling and Simulation  -SATAF  -DRs   1. Operations and Support phase   Intelligence provides input to  -Threat documentation  -Strategic program planning  -Developing a modification program  -Life Cycle Management Plan (LCMP)  -Cost estimate  -PPP  -Risk Management  -SEP update  Note: Results from intelligence inputs from the above documentation may result in changes required for the 12 Product Support elements. | | [DODD 5000.01](http://www.dtic.mil/whs/directives/corres/pdf/500001p.pdf) The Defense Acquisition System  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 5  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military  Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [AFI 14-201](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-201.pdf) Intelligence Production and Applications  [AFI 14-202V3](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-202V3.pdf) General Intelligence Rules Paragraph 5.4  [AFI 14-205](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-205.pdf) Geospatial Information and Services  [AFI 14-206](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-206.pdf) Modeling & Simulation  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capability Based Requirements Development Document  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capability Based Test and Evaluation  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [AFMAN 63-119](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN63-119.pdf) Certification of Systems Readiness for Dedicated Operational Testing  62 series  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PPP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880817&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP Samples](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [ISP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880738&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LCCE Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880742&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | All |
| **EXIT CRITERIA:** | | | |
| See documents listed in tasks 2-7  Properly secured and documented disposal of weapon system | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [1.05](#P1_05) | Review Initial Capability Document (ICD) for supportability | Capabilities Based Analysis (CBA)  Supportability Objectives  Capabilities Review & Risk Assessment (CRRA)  JCIDS DOTMLPF analysis  Initial Capabilities Document (ICD) if available | | |
|  | | | | |
| The ICD defines the capability gap in terms of the functional area, the relevant range of military operations, desired effects, and time. The ICD supports the concept decision and Milestone A. The ICD describes capability gaps that exist in joint war fighting functions. It establishes linkages between key characteristics & capabilities identified thru the Functional Area Analysis. Review should include all 12 Product Support elements.  Note: An ICD Stage I (Air Force only) consists of paragraphs 1-5. An ICD II consists of paragraphs 1-7. of CJCSM 3170.01C | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Participate in the initial development, review and update of the entire ICD for supportability and usability inputs since these inputs are incorporated throughout. Reference the AFMC/A4 ICD Review Checklist. 2. Review data used to support initial JCIDS analysis 3. Understand the operational and threat environment in which capability is exercised and manner in which the capability will be employed. (For Intelligence Reference Appendix A, Checklist 1.04). 4. Analyze operational capabilities and environmental constraints. (For Intelligence Reference Appendix A, Checklist 1.04). 5. Review concept performance definition and verification objectives to include constraints 6. Need to ensure supportability analysis determines cost effective support over system life cycle 7. Ensure requirements include Technical Orders & other Technical Data, Support Equipment, Packaging, Handling, Storage & Transportation; Reliability, Availability, Maintainability & Cost (RAM-C); Environment, Safety & Occupational Health (ESOH), Producibility, interoperability & maintainability concepts for inclusion into specifications. 8. Ensure Human Systems Integration implications, constraints & issues are addressed and included in the ICD. 9. Ensure DOTMLPF analysis includes logistics considerations. If these are not included ensure analysis is performed.    1. Evaluate existing facilities installation / capabilities for application.    2. Ensure consideration of the proposed target audience (user). This includes the cognitive, physical and sensory abilities i.e., capabilities and limitations of the operators, maintainers, and support personnel that are expected to be in place at the time the system is fielded. | | | [CJCSM 3170.01C](http://www.dtic.mil/cjcs_directives/cdata/unlimit/m317001.pdf) pages E-1 through E-4 and E-A-1 through E-A-6  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf)  [AFI 10-604](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-604.pdf)  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [AFMC/A4 ICD Review Checklist](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7819192&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [DOD Environment, Safety & Occupational Health Network & Information Exchange (DENIX)](http://www.denix.osd.mil/cmrmd/ECMR/index.cfmhttp:/www.denix.osd.mil/cmrmd/ECMR/index.cfm)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) Page 17  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis  Technology Development |
| **EXIT CRITERIA:** | | | | |
| Analysis of Alternatives guidance  Updated ICD  Technology Development Strategy (TDS)  Clinger-Cohen Certification for Major Automated Information Systems (MAIS)  Capability Roadmap  Initial Technology Review  Preferred System concept  Supportability Objectives  Test & Evaluation Strategy  System Engineering Plan | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [1.06](#P1_06) | Include Product Support Capabilities in Analysis of Alternatives (AoA) Plan | | Joint Operations Concepts  Materiel Development Decision (MDD)  Initial Capabilities Document (ICD)  AoA Study Guidance  RSR results  Capabilities Based Analysis | |
| **DESCRIPTION:** | | | | |
| The AoA plan is approved by the Milestone Decision Authority in conjunction with the Material Development Decision. AoA is an evaluation of the performance, operational effectiveness, operational suitability, and estimated costs of alternative systems to meet a mission capability. The analysis assesses the advantages and disadvantages of alternatives being considered to satisfy capabilities, including the sensitivity of each alternative to possible changes in key assumptions or variables. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Ensure a logistician is involved on the team that provides input to the Analysis of Alternatives (AoA) Plan 2. Interpret User Needs 3. Analyze Operational Capabilities, Capability Gaps, Energy Efficiency, Alternate Fuels considerations, Facilities/Infrastructure (Fuel Storage), Cost, Performance, and Environmental Constraints. 4. Analyze Threat and Operational Environment (For Intelligence Reference Appendix A, Checklist 1.04) 5. Summarize results of the analysis  * Include alternative operating and system support concepts with specific consideration of performance-based options * Consider the physical and operational maintenance environment of the proposed system * Identify human interfaces that drive any critical operational & sustainment concepts / issues   NOTES:   * Data collected and analyzed during AoA can be very useful for performing a Performance Based Logistics business cases analysis. * Life cycle related data in all program deliverables must be updated during subsequent phases, especially prior to milestone decisions. * Logisticians should ensure product support is addressed. Product Support includes: Technical Data Management/Technical Orders, Training, Support Equipment / Automatic Test Systems, Packaging, Handling, Storage & Transportation, Supply Support, Facilities, Computer Resources, Design Interface, Maintenance Planning & Management, Sustaining/Systems Engineering, Protection of Critical Program Information and Anti-Tamper Provisions and Manpower & Personnel.   Note: Review LogEA CONOPS for compliance with architecture  Note: Human interfaces include interfaces between human, hardware & software | | [CJCSI 3170.01G](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3170_01.pdf) , Joint Capabilities Integration and Development System (JCIDS) Defines JCIDS process. Type “Supportability” in Edit, Find and Find Next to understand the support role in process.  [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=314769) (DAG 3.3)  [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)  [CJCSM 3170.01C](http://www.dtic.mil/cjcs_directives/cdata/unlimit/m317001.pdf)  Operation of the Joint Capabilities Integration and Development System with attachments to the Initial Capabilities Document (ICD) Document provides a general understanding on JCIDS. See Enclosure E for ICD information.  [Designing and Assessing Supportability in DOD Weapon Systems (A Guide to Increased Reliability and Reduced Logistics Footprint)](https://acc.dau.mil/GetAttachment.aspx?id=32566&pname=file&aid=6167)  Entire document useful in building your plan  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management Para 1.5.1.6  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities Based Requirements Development Document This document supports the JCIDS process  [MIL-HDBK-502](https://acc.dau.mil/GetAttachment.aspx?id=142352&pname=file&aid=27645&lang=en-US) DOD Acquisition Logistics General information document on Acquisition Logistics  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [Office of Aerospace Studies AoA Handbook](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=10861680&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [Office of Aerospace Studies Pre-MDD Guide](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=10861686&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See checklists D-1, D-7, 12, F-1  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [AFPAM 23-221](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM23-221.pdf), Fuels Logistic Planning  [AFI 23-201](http://www.e-publishing.af.mil/shared/media/epubs/AFI23-201.pdf) Fuels Management  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [MIL-HDBK-46855A](https://assist.daps.dla.mil/docimages/A/0000/0020/1925/000000185936_000000163367_MCAVRUASTK.PDF?CFID=8590313&CFTOKEN=69332417&jsessionid=5c30d2fb3850d1919e9071f2f1a7546b6657) Human Engineering Program Processes & Procedures Para 4.1.1.1  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf)  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | Materiel Solution Analysis |
| **EXIT CRITERIA:** | | | | |
| Analysis of Alternatives (AoA) Plan  Initial Capabilities Document (ICD) | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [1.09.1](#P1_09_1) | Address Environmental Safety Occupational Health (ESOH) | Initial Capabilities Document (ICD)  Life Cycle Management Plan (LCMP)  Systems Engineering Plan (SEP)  Analysis of Alternatives (AoA)  Draft Capabilities Development Document (CDD)  Draft Capabilities Production Document (CPD)  Site Survey  Other Program Documentation as it becomes available | | |
| **DESCRIPTION:** | | | | |
| This task includes the planning required for compliance and influencing the design process to optimize ESOH. Participate in program activities ensuring ESOH issues are addressed, such as systems safety, hazardous materials/waste, noise (ambient & occupational), air quality, water resources and occupational health. Identify any tradeoffs, including tradeoffs among HSI domains that may be driven by ESOH or vice versa. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Materiel Solution Analysis phase:    1. Provide ESOH characteristics as part of the capability definition    2. Participate in AoA development    3. Provide the following exit criteria:       1. Preliminary Hazards List (PHL) for each concept       2. Strategy for integrating ESOH Risk management into the SEP    4. Identify potential ESOH operations and maintenance issues, and identify emerging ESOH technologies and hazards 2. Technology Development Phase:    1. Develop ESOH criteria and requirements    2. Identify ESOH constraints and performance attributes and characterize ESOH risks for AoA development    3. Develop Programmatic Environmental Safety & Health Evaluation (PESHE) to include: preliminary ESOH risks (including HM), the strategy for integrating into SE, ESOH responsibilities and method for tracking hazards.    4. Incorporate ESOH hazard risk mitigation test and verification methodologies, and work towards obtaining safety release(s) and ESOH risk acceptance    5. Initiate Safety Requirements/Criteria Analysis (SRCA), update PHL and develop Preliminary Hazard Analysis (PHA) & Threat Hazard Analysis (THA) for preferred concept    6. Update ESOH risk mitigation technology readiness levels    7. Provide preliminary ESOH requirements for system support and maintenance    8. Ensure waiver procedures in AFI 32-7086 Chapter 4 are followed if ozone depleting substances are required 3. Engineering & Manufacturing Development, Integrated System Design    1. Prepare SSHAs, SHA, and O&SHA and update the SRCA    2. Update ESOH criteria for component, subsystem, and system to include test and inspection requirements    3. Include ESOH updates to HSI planning (part of SEP, LCMP or separate HSI plan)    4. Begin to identify ESOH input for demilitarization and disposal planning    5. Include system ESOH-critical processes and components in inspection plan (e.g., component screening and testing)    6. Ensure system ESOH-critical design specifications are included in the requirements tracking system and detailed design specifications, as necessary    7. Ensure waiver procedures in AFI 32-7086 Chapter 4 are followed if ozone depleting substances are required 4. Engineering & Manufacturing Development – System Capability & Manufacturing Process Demonstration phase    1. Verify that mitigation measures reduce ESOH hazard risk effectively    2. Review the results of the preliminary O&SHA supportability impacts    3. Update the PESHE to include identified ESOH risks (including HM), the strategy for integrating into SE, ESOH responsibilities and method for tracking hazards    4. Recommend operational and maintenance ESOH training and staffing requirements    5. Ensure waiver procedures in AFI 32-7086 Chapter 4 are followed if ozone depleting substances are required    6. Review DT&E results for ESOH implications 5. Production & Deployment phase:    1. Review IOT&E results for the effectiveness of ESOH risk mitigation measures    2. Ensure that the PESHE includes identified ESOH risks, the strategy for integrating into SE, ESOH responsibilities and method for tracking hazards    3. Update ESOH strategies, requirements and risks in programmatic documents    4. Provide ESOH updates to HSI planning (part of SEP, LCMP or separate HSI plan)    5. Finalize the O&SHA    6. Ensure waiver procedures in AFI 32-7086 Chapter 4 are followed if ozone depleting substances are required 6. Operations & Support phase:    1. Review FOT&E results for ESOH implications    2. Continually review for ESOH hazards including mishaps and discrepancy reports    3. Continually review hazardous material usage for opportunities to reduce ESOH risks and costs       1. Review industry best practices    4. Ensure that the PESHE includes identified ESOH risks, the strategy for integrating into SE, ESOH responsibilities and method for tracking hazards    5. Provide updated inputs to HSI planning (part of SEP, LCMP or separate HSI plan)    6. Provide updated inputs for demilitarization and disposal planning    7. Sustain ESOH hazard analyses to support the fielded system, next increment, and acquisition of similar systems, as applicable    8. Ensure waiver procedures in AFI 32-7086 Chapter 4 are followed if ozone depleting substances are required | | | [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  Enclosure 12 Para 6  Enclosure 2, Para 8.C  Enclosure 6  Enclosure 4, Table 2-1 & 2-2  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [DOD ESOH in Acquisition Guide](http://www.wpafb.af.mil/shared/media/document/AFD-080402-030.pdf)  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Material Management  [AFI 32-7042](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7042.pdf) Solid and Hazardous Waste Compliance  [MIL-STD 882D](http://safetycenter.navy.mil/instructions/osh/milstd882d.pdf) Standard Practice for System Safety  [DODD 4715.1E](http://www.dtic.mil/whs/directives/corres/pdf/471501p.pdf) Environment, Safety, and Occupational Health (ESOH)  [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)  [CJCSM 3170.01C](http://www.dtic.mil/cjcs_directives/cdata/unlimit/m317001.pdf) Operation of the Joint Capabilities Integration and Development System Appendix A, Enclosure F, Para 13 & 14  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf), Air Installation Compatibility Use Zone  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See checklists C-1, D-1, 5, 8, 9, 11, 12, 16, E-1  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) Page 5  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management Para 3.79  [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production and Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Updated PESHE  Updated LCMP  Updated SEP  Updated TEMP  Updated CDD  Updated CPD  Updated Safety Analyses  Updated Risk Mitigation Plan | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [1.10](#P1_10) | Include Product Support Capabilities in Preferred System Concept | | Analysis of Alternatives Plan  Best Material Approach(es) | |
| **DESCRIPTION:** | | | | |
| Key to this initial step of materiel solution analysis is to ensure that all drivers of the concept definition are completely captured and managed as an integrated whole, and that all of the drivers can be met by each of the concept alternatives under consideration. This defines the expectations of the overall system concept, and defines the trade space and risk associated with each of the constraints, above. Defining the trade space and risk enables the comprehensive analysis of system alternatives, and allows a rational selection of a preferred system concept. The preferred system concept should strike the best balance in providing the needed capabilities within the constraints on the program. These constraints should include Manpower, Personnel and Training considerations to deliver the workforce to operate, support and sustain the system. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Ensure a logistician is involved on the team that provides input to the Preferred System Concept 2. Interpret User Needs 3. Analyze Operational Capabilities, Capability Gaps, and Environmental Constraints. 4. Analyze Threat and Operational Environment (Reference Appendix A, Checklist 1.04) 5. Summarize results of the analysis 6. Include alternative operating and system support concepts with specific consideration of performance-based options 7. Consider the physical and operational maintenance environment of the proposed system 8. Analyze the Human Systems Integration (HSI) implications of the system concept (inclusive of all the HSI domains) and the associated costs. Assistance for human related issues is available from your MAJCOM HSI cell or 711 HPW/HP 9. Analyze impacts to Maintenance Concepts 10. Consider Environment, Safety & Occupational Health (ESOH) 11. Consider facilities / infrastructure requirements   NOTES:   * Data collected and analyzed during AoA can be very useful for performing a Performance Based Logistics business cases analysis. * Life cycle related data in all program deliverables must be updated during subsequent phases, especially prior to milestone decisions. * Review LogEA CONOPS for compliance with architecture | | [CJCSI 3170.01G](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3170_01.pdf) Joint Capabilities Integration and Development System (JCIDS)  Defines JCIDS process. Type “Supportability” in Edit, Find and Find Next to understand support role in the process.  [CJCSM 3170.01C](http://www.dtic.mil/cjcs_directives/cdata/unlimit/m317001.pdf) Operation of the Joint Capabilities Integration and Development System with attachments to the Initial Capabilities Document (ICD)  Document provides a general understanding on JCIDS. See Enclosure E for ICD information  [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)  [Designing and Assessing Supportability in DOD Weapon Systems (A Guide to Increased Reliability and Reduced Logistics Footprint)](https://acc.dau.mil/GetAttachment.aspx?id=32566&pname=file&aid=6167)  Entire document useful in building your plan  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities Based Requirements Development This document supports the JCIDS process  [System Engineering](https://acc.dau.mil/CommunityBrowser.aspx?id=332951)  Chapter 4 Defense Acquisition Guide Book  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx) (See Chapters 2 , 4, and 6  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [MIL-HDBK-502](https://acc.dau.mil/GetAttachment.aspx?id=142352&pname=file&aid=27645&lang=en-US) DOD Acquisition Logistics  General information on Acquisition Logistics  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36)  See checklists D-1, D-3, D-7, D-12, F-1  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military  Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) Page 5 | | Materiel Solution Analysis |
| **EXIT CRITERIA:** | | | | |
| Preferred System Concept | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [1.13](#P1_13) | Participate in System Engineering Plan (SEP) development. | Technology Development Strategy (TDS)  Acquisition Strategy  Product Support Strategy  Analysis of Alternatives  Acquisition Program Baseline (APB)  Initial Capability Document (ICD)  Capability Development Document (CDD)  Capability Production Document (CPD)  Life Cycle Management Plan (LCMP)  Test and Evaluation Master Plan (TEMP)  Draft Systems Engineering Plan (SEP) | |
| **DESCRIPTION:** | | | |
| The System Engineering Plan (SEP) documents the organizations, authorities, roles and responsibilities, processes, and integration used to plan, evaluate, execute, and manage the technical aspects of a program. The SEP is a living document that must be reviewed annually, and updated as required throughout the life cycle. Program managers should establish the SEP early in program formulation. A best practice is to have the SEP written by the program Systems Engineering Working-level Integration Team. The SEP is a roadmap that defines comprehensive systems engineering activities, addressing both government and contractor technical activities and responsibilities. The SEP should be consistent with and complementary to the Acquisition Strategy and the Test and Evaluation Strategy or Test and Evaluation Master Plan, as appropriate. HSI planning shall be summarized in the SEP. There is no prescribed format for the SEP; however, it should address how systems engineering will support the translation of system capability needs into an effective, suitable product that is (warfighter emphasis) sustainable at an affordable cost. The PSM should review the SEP. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Participate on the Systems Engineering Working-level Integration Team during development of the SEP. 2. Review requirements documents to determine Logistics-related performance parameters that best represent warfighter needs. 3. Given the forecasted physical and operational maintenance environment of the proposed system, assess the functional characteristics of the proposed system, its complexity, and the obstacles and enablers to effective sustainment in that environment. 4. Ensure logistics considerations are addressed and documented in the plan to include:  * Reliability, Availability, Maintainability & Cost, (RAM-C) Supportability & Producibility * Product Support factors * Deployment footprint * Preliminary Manpower & Personnel requirements (quantity and skill levels, and use of contractor support) * Embedded diagnostics, prognostics, and similar maintenance enablers  1. Ensure the HSI process is used to generate a robust plan that considers all human-related domains in an integrated manner. It must be addressed throughout the life cycle, and must be consistently integrated into SE implementation to balance total system performance (hardware, software, and human), OSS&E assurance, survivability, safety, and affordability. HSI employs human factors engineering to design systems that effectively utilize manpower; provide effective training; can be operated and maintained by users; and are suitable (habitable and safe with minimal environmental and occupational health hazards) and survivable (for both people and equipment). 2. Review the SEP annually and update as required throughout the life cycle | | [DODD 5000.01](http://jitc.fhu.disa.mil/jitc_dri/pdfs/d50001.pdf) The Defense Acquisition System Enclosure 1, Para 1.27  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  Chapters 4 & 6  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management Para 3.76  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [Early Systems Engineering Guide](http://www.ndia.org/Divisions/Divisions/SystemsEngineering/Documents/Committees/Mission%20Analysis%20Committee/Support%20Documentation/Early%20Systems%20Engineering%20Guide%2031Mar09.pdf)  [Systems Engineering Plan (SEP) Outline](http://www.acq.osd.mil/se/docs/PDUSD-Approved.SEP_Outline-04-20-2011.docx)  [SEP Frequently Asked Questions](http://www.acq.osd.mil/se/pg/sepfaqs.html)  [DOD Technology Readiness Assessment (TRA) Deskbook](http://www.dod.gov/ddre/doc/DoD_TRA_July_2009_Read_Version.pdf)  Appendix F  [Designing and Assessing Supportability in DOD Weapon Systems](http://www.dau.mil/pubs/Guidebook/FINAL%20GUIDE%20with%20Memo%20-%20October%2024.pdf)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) App 1 page 61  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP Samples](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE) [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880789&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production and Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | |
| Systems Engineering Plan  Input to Acquisition Strategy  Input to Request for Proposal (RFP)  Input to Program Documentation | | | |

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| **TASK #** | | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | | |
| [1.13.1](#P1_13_1) | | Address Human Systems Integration (HSI) | As appropriate for acquisition phase:  Capabilities Based Assessment (CBA)  Concept Characterization Technical Document (CCTD)  Materiel Development Decision (MDD)  AoA Study Guidance  Draft Maintenance Concept  Initial Capability Document (ICD)  Capability Development Document (CDD)  Capability Production Document (CPD)  Life Cycle Management Plan (LCMP)  Analysis of Alternatives (AoA)  Systems Engineering Plan (SEP) | | | |
| **DESCRIPTION:** | | | | | | |
| Human Systems Integration (HSI) is a process to ensure systems are designed and developed that effectively and affordably integrate with human capabilities and limitations. The HSI process considers human factors engineering, manpower, personnel, training, and environmental, safety, and occupational health (ESOH) aspects along with survivability and habitability, throughout system design, development, fielding, and sustainment. The aim of this checklist is to ensure the consideration of HSI early and throughout the acquisition process in order to maximize system capability while minimizing life cycle costs and the logistics footprint. The HSI process gives logisticians a voice in the systems engineering process.  HSI is a continuous process which is applied iteratively. The objective of the HSI process is to fully consider the human in the design and engineering of a system, in such a way as to maximize total system performance (human + hardware + software) and minimize total ownership cost. HSI provides valuable input to decisions made at the earliest stages such as CBA and AoA, and contributes to risk management throughout system lifetime, to include modifications, upgrades, and increments.  A good set of general questions to guide the HSI process is found in the HSI Requirements Pocket Guide, pages 6-16. Consider these questions as a starting place for any HSI activity. For HSI expertise and assistance at any phase call your MAJCOM HSI cell or 711 HPW/HP.  As a logistician, you may be called upon to represent the input of maintainers and other support personnel who may have system requirements. You may also be a source of expertise for early manpower determinations and early cost estimates.  Note: Review LogEA CONOPS for compliance with architecture – creation of Operational View document may be required.  Note: See DOD Education & Training Opportunities HSI for list of available HSI training courses. | | | | | | |
| **CHECKLIST SUBTASKS:** | | | | | | |
| **TASK** | | | | **SOURCE DOCUMENTATION** | | **PHASE** |
| Pre-Materiel Solution Analysis Phase:   1. HSI considerations should be included in CBA, AoA, and ICD. 2. Use experience from similar fielded systems when possible to predict HSI issues and incorporate lessons learned. Support modeling, simulation & analysis, see task 2.18.1. 3. Provide inputs to CBA by identifying human-centered deficiencies and HSI-related capability gaps, and assess approaches to solving/mitigating those deficiencies/gaps. 4. HSI analyses conducted for CBA need to be captured in ICD and AoA study guidance. 5. When writing or reviewing requirements, consider how performance parameters and attributes should include HSI input. Use the HSI Requirements Pocket Guide to help users express requirements for usability, accessibility, displays and controls suited to the user and the task, and many other human-related issues. 6. Participate in High Performance Teams (HPT) (precursors to IPTs).   Materiel Solution Analysis Phase:   1. Support IPTs to incorporate a comprehensive set of human centered requirements into the design at the outset. 2. Determine requirements for human performance and each HSI domain using the questions in the HSI Requirements Pocket Guide, pages 6-16, as starting place. Look for opportunities to reduce workload and optimize manning, and participate in analyzing related technology requirements. Support modeling, simulation & analysis, see task 2.18.1. 3. Integrate requirements from the ICD into the AoA process 4. Transition HSI-relevant concepts from JCIDS studies and the ICD into the acquisition process. When writing or reviewing requirements, consider how KPPs and other performance parameters and attributes should include HSI input. Use the HSI Requirements Pocket Guide to help users express requirements for usability, accessibility, displays and controls suited to the user and the task, and many other human-related issues. HSI concerns that cannot be expressed in terms of thresholds and objectives can be included in the CDD and CPD in sections 14 and/or 15. 5. Participate in development of TES, SEP, TDS, LCMP, risk management and Cost/Manpower Estimates. See tasks 1.12 TES, 1.13 SEP, 1.14 TDS, 1.15 LCMP, 1.22 Risk & 1.25 Cost Estimating. 6. Sustain HSI throughout acquisition processes e.g. RFI/RFP, IMP/IMS. See tasks 1.20 RFP & 1.23 IMP/IMS. 7. Review CONOPS & operational concepts to provide feedback on logistics, maintenance and support.   Technology Development Phase   1. Support IPTs to develop a comprehensive design that incorporates human centered requirements and participate in trade-off decisions. 2. Review CONOPS & operational concepts to provide feedback on logistics, maintenance and support. 3. Participate in initial manpower estimate and the supporting manpower analysis. Identify potential personnel issues and determine training requirements for alternatives. Support modeling, simulation & analysis, see task 2.18.1. 4. Assess ESOH issues and address PESHE. See tasks 1.09.1 ESOH and 2.10.2 NEPA. 5. Assess survivability and habitability issues 6. Participate in identifying Measures of Suitability (MOS), Measures of Effectiveness (MOE) and Measures of Performance (MOP). 7. Participate in SEP update and technical reviews (e.g. SRR, SFR, and PDR). See tasks 2.20 SEP, 2.35 SRR (concepts) 2.54 SRR (specification), 2.58 SFR & 2.59 PDR. 8. Sustain HSI throughout acquisition processes (Important documents include CDD, MER, LCMP, SEP, TEMP, TRA, RFI/RFP, IMP/IMS, Risk Management Plan, system performance specs, Information Support Plan (1.04), and source selection criteria). For contract and source selection language see the HSI Guide for Contracts.   Engineering and Manufacturing Development Phase   1. Support IPTs to develop a comprehensive design that incorporates human centered requirements and participate in trade-off decisions. 2. Participate in updating the manpower estimate 3. Refine training requirements as system design matures and provide input to Training System Plan 4. Refine design concepts for optimizing human performance, especially human interfaces with hardware and software. Consider maintainers and other support personnel in this activity. Support modeling, simulation & analysis, see task 2.18.1. 5. Refine ESOH requirements and provide input to risk assessments. See tasks 1.09.1 ESOH and 2.10.2 NEPA. 6. Participate in developing survivability and habitability concepts 7. Participate in operational assessment of system’s ability to meet HSI-related requirements and roll up assessments into the program risk management process. 8. Participate in SEP update and technical reviews (e.g. Post-PDR Assessment, CDR, TRR, SVR, and PRR). See tasks 3.04 Post-PDR, 3.28 SEP, 3.12 CDR, 3.17 TRR, 3.33 SVR/PRR. 9. Sustain HSI throughout acquisition processes. (Important documents for update include CPD, MER LCMP, SEP, TEMP, RFI/RFP, IMP/IMS, Information Support Plan (1.04) and Risk Management Plan).   Production and Deployment Phase   1. Assist in assessing total system performance and cost based upon manpower numbers and personnel skill levels 2. Finalize and implement training program 3. Analyze any operational deficiencies in system’s ability to meet HSI-related requirements to help determine and assess corrective actions. Include these deficiencies in risk management activities 4. Identify HSI relevant issues and constraints that can be used to provide input into subsequent increments of capability or modifications to the system. Participate in iterative improvement. Watch for unintended human impacts due to modification/configuration change. See tasks 2.47.2 DR & 5.56 Mod Mgmt. 5. Provide inputs to appropriate lessons learned repositories 6. Define and implement system safety and health programs 7. Participate in Full Rate Production (FRP) Decision review. 8. Sustain HSI throughout acquisition processes. (Important documents for update include CPD, MER LCMP, SEP, TEMP, and IMP/IMS.)   Operations and Support Phase   1. Analyze any operational deficiencies in system’s ability to meet HSI-related requirements to help determine and assess corrective actions. Include these deficiencies in risk management activities. 2. Identify HSI relevant issues and constraints that can be used to provide input into subsequent increments of capability or modifications to the system. Participate in iterative improvement. Watch for unintended human impacts due to modification/configuration change. See tasks 2.47.2 DR & 5.56 Mod Mgmt. 3. Provide inputs to appropriate lessons learned repositories, include:  * Failure analysis * ECP review * In-service reviews * Mishap investigations * Fleet feedback analysis * Upgrade and modification development * Changes in maintenance procedures * Changes in materials * Obsolescence (DMSMS) See task 2.37.13 * Training sufficiency and feedback | | | | [CJCS 3170.01G](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3170_01.pdf#page=15) Joint Capabilities Integration and Development System (JCIDS)  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-036.pdf) Page 5 contains links to each phase  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf)  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf)  [HSI Guide for Contracts](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf)  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities-Based Requirements Development  This document supports the JCIDS process  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [Systems Engineering Plan (SEP) Outline](http://www.acq.osd.mil/se/docs/PDUSD-Approved.SEP_Outline-04-20-2011.docx)  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  (See Chapters 3, 4, 5, and 6  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Designing and Assessing Supportability in DOD Weapon Systems (A Guide to Increased Reliability and Reduced Logistics Footprint)](https://acc.dau.mil/GetAttachment.aspx?id=32566&pname=file&aid=6167)  See Chapter 3, but scan entire document for further information  [AFI 63-131](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-131.pdf) Modification Management Program  [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management  [OAS AoA Handbook](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=10861680&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [OAS Pre-MDD Handbook](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=10861686&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [DOD Education & Training Opportunities HSI](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=8259346&Function=ViewDocument&FolderID=MC-LG-01-82-5-8-3&Filter=MC-LG-01-82)  [Joint Lessons Learned Information System (JLLIS)](https://www.jllis.mil/usaf/)  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [LCC Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880742&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Pre-Materiel Solution Analysis  Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production and Deployment  Operations & Support | |
| **EXIT CRITERIA:** | | | | | | |
| Capabilities Based Assessment (CBA)  Concept Characterization Technical Document (CCTD)  Materiel Development Decision (MDD)  AoA Study Guidance  DOTMLPF Change Requests (DCR)  IMP/IMS  RFI/RFP  Manpower Estimate Report (MER)  Inputs into ECPs, modifications, upgrades, pre-planned product improvements  Inputs into Analysis of Alternatives (AoAs)  Input into Systems Engineering Plan (SEP) (specifically HSI planning)  Input into Maintenance Concept  Inputs into Training Plans  Inputs into Test and Evaluations Master Plans (TEMP)  Input into Initial Capabilities Document (ICD)  Input into Capabilities Development Document (CDD)  Inputs into Capability Production Document (CPD)  Input into Life Cycle Management Plan (LCMP)  Input into Life Cycle Cost (LCC) Estimates | | | | | | |

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| **TASK #** | | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | | |
| [1.14](#P1_14) | | Develop Technology Development Strategy to Include Product Support | Supportability Objectives  Initial Capabilities Document (ICD)  Analysis of Alternatives (AoA) | | | |
| **DESCRIPTION:** | | | | | | |
| The Technology Development Strategy (TDS) documents the rationale for adopting an evolutionary or a single-step-to-full-capability strategy. For evolutionary acquisition, either spiral or incremental, the TDS shall include a preliminary description of how the program will be divided into technology spirals and development increments to include number of prototype units that may be produced and deployed during technology development. The TDS will also define the support, specific performance goals, and exit criteria. Upon approval of the TDS and selection of an initial concept, the project will enter the Technology Development phase at MS A. The TDS is approved by the MDA at Milestone A for all potential acquisition programs. Per DODI 5000.02 Encl 4, Table 3, a TDS is required for all acquisition programs. The purpose of this phase is to reduce technology risk and to determine the appropriate set of technologies to be integrated into a full system. It should include an assessment of the ability to interface the technology with the end users, maintainers and support personnel (human readiness for the technology) | | | | | | |
| **CHECKLIST SUBTASKS:** | | | | | | |
| **TASK** | | | | **SOURCE DOCUMENTATION** | | **PHASE** |
| The logistician should consider the following key logistics criteria:   1. Forecast the physical and operational maintenance environment of the proposed system 2. Given the forecasted environment from a logistics and Intelligence perspective, assess the functional characteristics of the proposed system, its complexity, and the obstacles and enablers to effective sustainment in that environment (Reference Appendix A, Checklist 1.04) 3. Assess the impact of the proposed system on the maintenance capabilities planned for the period in which the system will be introduced, including facilities/infrastructure requirements 4. Assess preliminary manpower and personnel requirements and constraints in both quantity and skill levels, and use of contractor support. Include within this assessment any unique human interface requirements to facilitate the effective use of the technology. 5. Begin compilation of information and requirements for logistics footprint reductions, deployment requirements, and other factors affecting the in-theater operational concept 6. Initiate the development of operating and support reliability objectives and their corresponding benefits and resource requirements; consider the performance histories of prior systems or systems of similar capability where feasible 7. Assess the concept and technology with regard to their ability to facilitate the use of embedded diagnostics, prognostics, and similar maintenance enablers. Ref 1.03.1 8. Ensure a description of the approach that will be used to ensure data assets will be made visible, accessible, and understandable to any potential user as early as possible is included (technical data rights strategy) 9. Initiate the compilation and assessment of data on the projected sustainment demand, standardization of platforms, and required support equipment 10. Develop Rough Order of Magnitude Life Cycle Cost estimates 11. Assess the Technical Data Rights Strategy with regard to technical data required.   NOTE: Requirements for content of the TDS are found in DODI 5000.02, 5.C (7) Page 17, which specifically calls out a list of known or probable critical program information and potential countermeasures such as anti-tamper in the preferred system concept and in the critical technologies and competitive prototypes to inform program protection and design integration during the technology development phase. The TDS also must include an RAM strategy per DODI 5000.02, 5.D. (5).  Note: Review LogEA CONOPS for compliance with architecture | | | | [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Encl 4, Table 3, Page 42  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [DODD 8320.02](http://www.dtic.mil/whs/directives/corres/pdf/832002p.pdf) Data Sharing in a Net-Centric Department of Defense (Reference (l)).  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  Chapter 2.2  [Technology Program Management Model v2](http://www.tpmm.info/)  [DOD Technology Readiness Assessment (TRA) Deskbook](http://www.dod.gov/ddre/doc/DoD_TRA_July_2009_Read_Version.pdf)  Appendix F  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)  [DODI 5200.39](http://www.dtic.mil/whs/directives/corres/pdf/520039p.pdf) Critical Program Information (CPI) Protection Within the Department of Defense  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) Page 7  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [Risk Management Plan Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880822&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis | |
| **EXIT CRITERIA:** | | | | | | |
| Approved Technology Development Strategy (TDS)  Identification of Key Performance Parameters (KPPs) and/or Key Systems Attributes (KSAs)  Market Research for product support capabilities  Risk Management Plan (document initial support related risk and risk mitigation planning) | | | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [1.15](#P1_15) | Develop Initial Product Support Strategy in the Life Cycle Management Plan (LCMP) | Joint Capabilities & Development System Analysis  Initial Capabilities Document (ICD)  Life Cycle Management Plan (LCMP)  Defined Supportability Objectives  Analysis of Alternatives (AoA) Plan  Logistics footprint reductions requirements  Deployment requirements  Target Audience Description (TAD) | |
| **DESCRIPTION:** | | | |
| A Life Cycle Management Plan is a comprehensive document that consolidates the weapon system life cycle acquisition management and product support strategies from materiel solution analysis through reclamation/disposal. It is a document that must be maintained to remain compliant with revised/new DOD policy and statutory requirements. It represents a corporate AF position on how to best execute and manage a specific program and requires participation from all program stakeholders in its development and update. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Review AFPAM 63-128 Section 2. Use the given order to organize the information gained from the following steps. 2. Review the Joint Capabilities and Development System analysis for    1. Life cycle cost:    2. Logistics supportability treated as an operational performance capability that is inherent to systems design and development    3. Capabilities based analysis that includes supportability as an inherent part of defining capability needs    4. Supportability as a key attribute to be defined, found within the "capabilities based" approach to setting formal warfighter requirements    5. Initial establishment of supportability and support-related performance criteria    6. Doctrine, Organization, Training, Materiel, Leadership and education, Personnel, and Facilities(DOTMLPF) considerations to include key logistics criteria that will help minimize logistics footprint and reduce cost. Ensure consideration of the proposed target audience (user). This includes the cognitive, physical and sensory abilities i.e., capabilities and limitations of the operators, maintainers, and support personnel that are expected to be in place at the time the system is fielded.    7. Energy Efficiency and Alternate Fuels considerations 3. Review the ICD for: 4. Product support concept and needed capabilities 5. Reductions in logistics footprint & system life cycle costs (inclusive of the people, support equipment and other elements) 6. Potential constraints on operating and support resource requirements 7. Human Systems Integration implications, constraints & issues 8. Refer to the forecast of the physical and operational maintenance environment of the proposed system. Given the forecast, assess the functional characteristics of the proposed system, its complexity, and the obstacles and enablers to effective sustainment in that environment 9. Begin to document Environment, Safety & Occupational Health (ESOH) strategies in the Programmatic Environmental Safety and Health Evaluations (PESHE) to be summarized in the LCMP 10. Ensure the HSI process is used to support generation of a robust plan that considers all human-related domains in an integrated manner. It must be addressed throughout the life cycle, and must be consistently integrated into SE implementation to balance total system performance (hardware, software, and human), and affordability.   Include facilities/infrastructure to encompass both operational and maintenance   1. Influence product design with Life Cycle Logistics (LCL) for affordable System Operational Effectiveness (SOE) 2. Include the evaluation of the Product Support Capabilities 3. Review projected sustainment demand, standardization of platforms and required equipment 4. Identify anticipated sustainment requirements to the Centralized Asset Management (CAM) office (AFMC/A4F Workflow). For AFSPC, ANG and AFRC sustainment requirements also contact the respective organization. If program is within 2-3 years of needing 3400 sustainment funding, ensure planning for budget input is accomplished. See Task 5.25 5. Ensure Product Support elements are input into draft Systems Engineering Plan (SEP), encompassing Product Support (PS) Systems Engineering (SE) requirements and Item Unique Identification (IUID) 6. Review the Request for Proposal (RFP) for Systems Engineering (SE) concepts (Limit to objectives and goals identified in the Mission Needs Statement (MNS), constraints, customer objectives/goals and other boundary objectives/goals identified in program direction). Ensure Energy Efficiency and Alternate Fuels considerations are included 7. Review the Best Material Approach and include the preferred Product Support concept 8. Review the Technology Development Strategy for Product Support concepts such as 9. Conceptual impact on national technology or industrial base 10. Critical Technology Information Protection 11. Energy Efficiency and Alternate Fuels considerations 12. Technical data as initially addressed in the Technical Data Rights Strategy (TDRS). (The TDRS begins as a section of the Technology Development Strategy then becomes a section of the LCMP.) 13. Ensure a description of the approach that will be used to ensure data assets will be made visible, accessible, and understandable to any potential user as early as possible is included (technical data rights strategy) 14. Review Modular Open Systems Approach (MOSA) strategy summary written by the program manager for 15. Life cycle supportability 16. Financial and support functions to make trade-off decisions that affect system readiness and cost 17. Conceptual impact on national technology or industrial base 18. Critical Technology Information Protection 19. Review exit criteria from the Acquisition Decision Memorandum (ADM) for Product Support issues   Note: Review LogEA CONOPS for compliance with architecture | | [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management Sec 2.11  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx) (Chapters 4 , 5, and 6)  [DOD Template for Application of TLCSM and PBL In the Weapon System Life Cycle](http://www.acq.osd.mil/log/sci/exec_info/tlcsm_guide_temp.pdf)  [Request for Proposal (RFP) Information](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-PK-DB&DocID=4535)  [Technology and Industrial Base Plans, 10 U.S.C. 2440](http://frwebgate1.access.gpo.gov/cgi-bin/TEXTgate.cgi?WAISdocID=sejynR/0/1/0&WAISaction=retrieve)  [Technology Readiness Assessment Deskbook (TRA)](http://www.dod.gov/ddre/doc/DoD_TRA_July_2009_Read_Version.pdf)  [Designing and Assessing Supportability in DOD Weapon Systems: A Guide to Increased Reliability and Reduced Logistics Footprint 2003](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplay.asp?Filter=HP-HS&DocID=464031) (3.3)  [System Operational Effectiveness (SOE)](https://acc.dau.mil/CommunityBrowser.aspx?id=328734) DAG 5.2  [PBL: PM's Product Support Guide](https://centernet.hanscom.af.mil/acqdev/PMTB/ProductSupport/docs/PSG%20draft%203jun04.doc) (3.0 – 7.0)  [What is a Systems Engineering Plan](https://acc.dau.mil/CommunityBrowser.aspx?id=333028) (DAG 4.5.1)  [What is a Modular Open Systems Approach (MOSA)](https://acc.dau.mil/CommunityBrowser.aspx?id=314739)  (DAG 2.3.15)  [MOSA during Materiel solution analysis](https://acc.dau.mil/CommunityBrowser.aspx?id=333016)  (5.4.1.1.2)  [MIL-HDBK-502](https://acc.dau.mil/GetAttachment.aspx?id=142352&pname=file&aid=27645&lang=en-US) DOD Acquisition Logistics (ALL)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [Independent Cost Estimate: Operational Manpower requirements, 10 U.S.C.2434](http://frwebgate3.access.gpo.gov/cgi-bin/TEXTgate.cgi?WAISdocID=pA6rQP/0/1/0&WAISaction=retrieve)  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System (Enclosures 7 & 12)  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [DODI 8320.04](http://www.dtic.mil/whs/directives/corres/pdf/832004p.pdf) Item Unique Identification (IUID) Standards for Tangible Personal Property  [Systems Engineering Plan (SEP) Outline](http://www.acq.osd.mil/se/docs/PDUSD-Approved.SEP_Outline-04-20-2011.docx)  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See checklists D-2, D-3, D-4, D-6, D-9, D-10, E-1  [Target Audience Description Guide](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3539339&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [Logistics Requirements Determination Process](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11)  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [DODD 8320.02](http://www.dtic.mil/whs/directives/corres/pdf/832002p.pdf) Data Sharing in a Net Centric Department of Defense (Reference (l)).  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) App 1 page 61  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf)  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  [Next Generation CLS Contract Sustainment Support Guide (CSSG)](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=11621638&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [RFP Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880750&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis |
| **EXIT CRITERIA:** | | | |
| Evaluation of Product Support Capabilities  Systems Engineering Plan (SEP)  Support & Maintenance Concepts & Technologies  Request for Proposal (RFP)  Approved and Finalized Preferred Solution from the AoA  Inputs to Technology Development Strategy (TDS)  Cost/Manpower estimates  Technology Development Strategy  Acquisition Decision Memorandum (ADM)  Draft Capabilities Development Document (CDD)  Updated Life Cycle Management Plan (LCMP) | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [1.15.1.1](#P1_15_1_1) | Unique Munitions Acquisition Activities Checklist | | Initial Capabilities Document (ICD)  Capabilities Development Document (CDD)  Capabilities Production Document (CPD)  Concept of Operations (CONOPS)  Joint Capabilities Document (JCD)  Key Performance Parameters (KPPs) | |
| **DESCRIPTION:** | | | | |
| The munitions activities checklist provides guidance on acquisition processes that are wholly unique to munitions development and fielding or have substantial components accomplished only for munitions programs. The preponderance of these efforts are related safety concerns over the energetic and potentially volatile nature of the materials and end product. Omission or noncompliance to most of these tasks by appropriate events will result in the stoppage of all related efforts until compliance, including the possibility of a waiver, is achieved. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Ensure a logistician is cognizant of the “Safe and Arm” approval process and disseminates resulting procedures to appropriate document and training development activities 2. Monitor SEEK EAGLE and airworthiness certification processes and ensure appropriate aircraft and maintenance TOs are generated or updated 3. Monitor insensitive munitions testing and ensure information impacting transportation, handling and storage are included in transportation and storage planning 4. Ensure range testing requirements (such as flight termination and telemetry requirements) are addressed early and planning for their use throughout the program’s life cycle included in all acquisition phases 5. Maintain awareness of data requirements for the Non-Nuclear Munitions Safety Board and ensure availability of logistical data to support munitions approval process 6. Facilitate all transportation and storage requirements development, distribution planning, storage/facilities planning, and transfer of program responsibility, ensure human system integration (HSI) aspects are considered in all aspects of planning (Performance-Oriented Packing, Interim Hazard Classification, Material Safety Data Sheet, EOD Render Safe Procedures) | | [MIL STD 882D](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=36027) Standard Practice For SystemSafety  [AFI63-104](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-104.pdf) TheSEEKEAGLEProgram  [AFPD 62-6](http://www.e-publishing.af.mil/shared/media/epubs/AFPD62-6.pdf) USAF Aircraft Airworthiness Certification  [MIL-HDBK-516B](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=212162) Airworthiness Certification Criteria  [10 USC 2389](http://www.gpoaccess.gov/uscode/index.html) Subtitle A Part IV Chapter 141 Ensuring safety regarding insensitive munitions  [RC-319-07](http://www.eglin.af.mil/shared/media/document/AFD-100226-069.pdf) Range Commanders Council Flight Termination Commonality Standard  [AFI91-205](http://www.e-publishing.af.mil/shared/media/epubs/AFI91-205.pdf) Non nuclear MunitionsSafety Board  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/afi32-7086.pdf) Hazardous Materials Management  [MIL-STD-2105C](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=72079) Hazard Assessment Tests For Non-Nuclear Munitions  [TO 11A-1-47](http://www.ddesb.pentagon.mil/HazardClass/TB%20700_2%20%20A&E%20Hazard%20Classification.pdf) DOD Ammunition and Explosives Hazard Classification Procedures  [49 CFR Part 171](http://www.access.gpo.gov/nara/cfr/waisidx_04/49cfr171_04.html) General Information, Regulations and Definitions  [DI-SAFT-80182B](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=205758) Technical Data For Munitions  [AFI 21-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI21-101.pdf) Aircraft and Equipment Maintenance Management  [AFI 21-201](http://www.e-publishing.af.mil/shared/media/epubs/AFI21-201.pdf) Conventional Munitions Maintenance Management  [AFI 32-3001](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-3001.pdf) Explosive Ordinance Disposal Program | | Material Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Systems Engineering Plan (SEP)  SEEK EAGLE certification request/recommendation  Technical Data package  Material Safety Data Sheet  Interim Hazard Classification  Tactical Airworthiness Certification Criteria/Modified Airworthiness Certification Criteria (TACC/MACC)/certification | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [1.16](#P1_16) | Ensure Supportability Included in Program Management / Expectation Management Agreements (PMA/EMA) | Program Management Directive (PMD)  Acquisition Decision Memorandum (ADM) | | |
| **DESCRIPTION:** | | | | |
| The PMA/EMA is a jointly developed and formally documented agreement used to proactively resolve or de-conflict potential issues to include cost, schedule, performance, and logistics expectations over the life of the program. The PMA/EMA is designed to facilitate effective communication and provide updates and support for building an understanding between the acquisition/sustainment and operational communities. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensure the CONOPS, to include usage rates, etc, are included in the PMA/EMA. (Example: Availability Rates, Mean Time between Failure, etc.) 2. Life Cycle Management Plan addresses the Life Cycle Support Strategy of the system/product. 3. Ensure Performance Based Logistics (PBL) tenets are considered. 4. Define logistics requirements (Logistic Footprint) to include sustainment strategy – re-procurement of systems, subsystems, components, spares, and services beyond initial production. Include Government Furnished Property (GFP-MAT) 5. Consider disciplined maintenance procedures that preserve the system and end-item operational safety, suitability, and effectiveness throughout the operational life. 6. Establish performance metrics for assessing program success throughout the acquisition lifecycle that ensure supportability criteria is included in the PMA/EMA (i.e. mean time between failure (MTBF), maintenance cycle time, footprint reduction, supply change management). 7. Coordinate with the appropriate ALC and Defense Logistics Agency (DLA) for Packaging, Handling, Storage & Transportation and Asset Marking to include Item Unique Identification (IUID) requirements 8. Ensure the user addresses / identifies facilities and site survey requirements (Ref. checklist 2.10) 9. Ensure resources, (manpower & TDY dollars) are planned for user and others outside the program office for program execution   Note: Review LogEA CONOPS for compliance with architecture | | | [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management Sec 6.3  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management Para 3.42  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See checklist F-1  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PMA/EMA Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880785&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | | |
| Updated Initial Capability Document (ICD)  Updated Capability Development Document (CDD)  Updated Life Cycle Mgmt Plan (LCMP)  Updated Draft Capability Development Document (CDD)  Signed Expectation Management Plan | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [1.17](#P1_17) | Include Supportability in the Source Selection Plan (SSP) | Pre-Solicitation Source Selection Planning  Source Selection IPT including logistics as applicable  Source Selection Authority Assignment  Acquisition Plan  Brief Description of Requirements  Program Management Directive (PMD)  Acquisition Decision Memorandum (ADM)  Request For Proposal (RFP) Section L & M | | |
| **DESCRIPTION:** | | | | |
| The SSP is a plan that describes how the source selection will be organized, how proposals will be evaluated and analyzed, and how sources will be selected. Sections L&M of the RFP are generally attached to the SS plan. Well thought out evaluation criteria typically including supportability are a part of sections L & M. We select a vendor with the best product support value. Supportability criteria must be well designed and utilized in the source selection process. Source selection IAW the SSP will be conducted following the release of the RFP ending with the contract award. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensure integrated baseline addresses product support strategy 2. Develop life cycle product support areas of evaluation 3. Review supportability requirements assessing operational availability, logistics footprint, cost effectiveness and RAMS in the system engineering process 4. Participate on the source selection team to address product support concerns 5. Include HSI criteria as appropriate in the source selection plan and draft RFP 6. Draft request for proposal – sections L&M for product support to include Technical Data Management/Technical Orders, Support Equipment/Automatic Test Systems, Supply Support, Diminishing Manufacturing Sources and Material Shortages and Packaging, Handling, Storage & Transportation and Training. Consideration must also be given to Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient & occupational), Alternate Fuels, reclamation, demilitarization and disposal. Ensure this plan is executed in checklist 1.20 Task 3.   Note: Review LogEA CONOPS for compliance with architecture  **Sample Documents:**  [RFP Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880750&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | | [IG5315.303 Source Selection Plan Guide](http://farsite.hill.af.mil/reghtml/regs/far2afmcfars/af_afmc/affars/IG5315.303.doc) (All)  [DFARS 215.3](http://www.acq.osd.mil/dpap/dars/dfars/pdf/r20060908/215_3.pdf)  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx) (See Chapters 2, 4, 6, 8, and 11  [HSI Guide for Contracts](http://www.wpafb.af.mil/shared/media/document/AFD-100317-026.pdf)  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [40 CFR part 1500-1508](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=801c8988a5cb85fd75f3c1d7452dcaf1&rgn=div5&view=text&node=40:33.0.3.3.1&idno=40)  [42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf), Air Installation Compatibility Use Zone  [AFFARS Mandatory Procedures 5315.3](http://farsite.hill.af.mil/reghtml/regs/far2afmcfars/af_afmc/affars/MP5315.002.htm#TopOfPage)  [AFFARS 5315.305(c)](http://farsite.hill.af.mil/archive/affars/2008-0128/5315.htm#P99_4520)  [Supportability Requirements](https://acc.dau.mil/CommunityBrowser.aspx?id=141970)  [DOD 4140.1-R](http://www.dtic.mil/whs/directives/corres/pdf/414001r.pdf) DOD Materiel Management Regulation  Chapter 3 section 6  [DODI 4160.28](http://www.dtic.mil/whs/directives/corres/pdf/416028p.pdf) DOD Demilitarization (DEMIL) Program  [DOD 4160-28-M Vol. 1](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol1.pdf) Defense Demilitarization: Program Admin  [DOD 4160-28-M Vol 2](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol2.pdf) Defense Demilitarization: DEMIL Coding  [DOD 4160-28-M Vol 3](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol3.pdf) Defense Demilitarization: Procedural Guidance  [DOD DEMIL Web Page](https://demil.osd.mil/)  [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) USAF Supply Manual  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14) | Materiel Solution Analysis    Technology Development  Engineering & Manufacturing Development  Production & Deployment |
| **EXIT CRITERIA:** | | | | |
| Complete Source Selection Plan | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [1.20](#P1_20) | Include Supportability Requirements in Request for Proposal (RFP) | | Source Selection Plan  Technical/Acquisition Strategy  Product Support Strategy  Milestone Decision Authority | |
| **DESCRIPTION:** | | | | |
| RFP is used in negotiated acquisitions to communicate the government’s requirements and solicit proposals. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Ensure product support requirements are identified including Training, Technical Data Management/Technical Orders, Support Equipment/Automatic Test Systems, Packaging, Handling, Storage & Transportation, Supply Support, cataloging requirements, Diminishing Manufacturing Sources and Material Shortages and Asset Marking to include Item Unique Identification (IUID) requirements. Coordinate with ALCs and Defense Logistics Agency (DLA) to ensure adequate packaging / transportation requirements are on contract (include data). Ensure Container Design Retrieval System (CDRS) testing requirements are in RFP. 2. Determine life cycle product support activities for the program applicable to all milestones. Specifically include facilities / infrastructure and applicable requirements for high performance facilities 3. Include HSI criteria in the RFP 4. Develop RFP sections L & M IAW plan developed in checklist 1.17 Task 5 to include product support strategy discriminators such as operational availability, logistics footprint, and migration planning and maintenance concept. 5. Develop and revise all sections of the draft RFP for product support where appropriate. 6. Secure logistic experts as source selection evaluators and advisors. 7. Evaluate contractor proposals against product support RFP requirements. 8. Communicate product support strategy with Industry. 9. Identify and include in RFP technical source data requirements. 10. Develop product support evaluation factors and sub-factors 11. Ensure Government Industry Data Exchange Program (GIDEP) participation is in the contract. 12. Ensure completion of tasks 1.21, 1.21.1, 1.21.2, and 1.21.3 which are specific requirements to be included in the RFP   Note: For Services-Based Contracts, a Requirements Approval Document (RAD) is required for contract award. Concurrent Development of the RFP and RAD is highly recommended to avoid potential delays in contract award. For more information on the RAD Process, see the [AFMC Contract Support Services Requirements Approval Process Community of Practice](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-AQ-MC-90)  Note: Review LogEA CONOPS for compliance with architecture | | [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx) (Chapters 4,5, & 6)  [IG5315.204-5(c)Section M Guide Source Selection Documentation](http://farsite.hill.af.mil/reghtml/regs/far2afmcfars/af_afmc/affars/IG5315.204-5(c).doc)  [IG5315.204-5(b) Section L Guide Source Selection Documentation](http://farsite.hill.af.mil/reghtml/regs/far2afmcfars/af_afmc/affars/IG5315.204-5(b).doc)  [Government Industry Data Exchange Program (GIDEP)](http://www.gidep.org/)  [HSI Guide for Contracts](http://www.wpafb.af.mil/shared/media/document/AFD-100317-026.pdf)  [AFMCMAN 23-3](http://www.e-publishing.af.mil/shared/media/epubs/AFMCMAN23-3.pdf) Cataloging and Standardization Chapter 26  [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) USAF Supply Manual  [DOD 4140.1-R](http://www.dtic.mil/whs/directives/corres/rtf/p41401r.doc) DOD Supply Chain Materiel Management Regulation  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [Berry Amendment](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+10USC2533)  [10 USC 2320](http://www.gpoaccess.gov/uscode/index.html)  [10 USC 2321](http://www.gpoaccess.gov/uscode/index.html)  [SAF Memorandum on coordination of Requirements Documents for release of RFP 27 Jan 2010](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7825735&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [SAF Memorandum coordination of requirements documents for RFP Template](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=7825746&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [Air Force Strategic Energy and Infrastructure Plan](http://www.afcesa.af.mil/shared/media/document/AFD-081029-038.pdf)  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  [FAR & DFAR clauses for Data Rights](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=11282944&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  **Sample Documents:**  [RFP Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880750&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production & Deployment |
| **EXIT CRITERIA:** | | | | |
| Released RFP | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [1.21.4](#P1_21_4) | Define Contractor Supported Weapon System (CSWS) Data Requirements | AoA Study Guidance  Initial Capabilities Document (ICD)  System Requirements Document (SRD) | | |
| **DESCRIPTION:** | | | | |
| This checklist provides guidance to define the data requirements for CSWS programs and to ensure data acquisition systems are compatible with the Logistics Enterprise Architecture (LogEA) as established by HQ USAF/A4/7 (AFI 63-1201). These requirements are applicable regardless of the type of CSWS (AF, Joint, and Partner Nation) and are reflective of the standards included in the CSWS Alignment Template. This provides the basis for information exchange and a standard set of requirements for CSWS programs at all phases in the weapon system lifecycle. Also included are a suggested set of additional requirements to be evaluated by each CSWS program.  **This checklist is a living document that will have additional iterations based on implementation of LogEA for current and future weapon systems.** | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensure the following are included as AF data requirements (necessary for LogEA information compliance) in the contractual documentation/information for the CSWS:  * Engineering Change Request (ECR) Packages * Assistance Request (AR) * Maintenance Program\* * BOM Structure\* * Closed ECN with Product Data\* * Unsolicited Contractor ECR\* * Unsolicited Engineering Change Proposal\* * Advanced Shipping Notification (ASN) * Delivery Information * Change in Vehicle Status * Conditional Parameters * Inventory Data * Fault Data * Operational Parameters * Policy and Regulation * Vendor Capacity Data * Vendor Lead Times & Sourcing Information * Carcass Levels * Project Data (Resource Availability/Utilization) * Repairable Returns * Other External Customer Forecasts * Transportation Lead Times * Business Rules for Return Processes * WIP Status * Work Order   \* Attached to AR, but listed separately for clarification   1. Provide input to the CSWS Contractor Enabling Data Guide (below) to determine the need for elective data feeds from the AF to the contractor for the individual CSWS program. 2. Assist in Determining if there are any additional AF data requirements beyond those listed in the above list or in the Enabling Data Guide. 3. Ensure the applicable data requirements and exchange frequencies are included in the contractual documentation/information. | | | [Designing and Assessing Supportability in DoD Weapon Systems (A Guide to Increased Reliability and Reduced Logistics Footprint)](https://acc.dau.mil/GetAttachment.aspx?id=32566&pname=file&aid=6167)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities Based Requirements Development Document - This document supports JCIDS process  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFPD 16-14](http://www.e-publishing.af.mil/shared/media/epubs/AFPD16-14.pdf) Information Protection  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [CSWS Alignment Template](https://www.my.af.mil/afknprod/ASPs/DocMan/DocMain.asp?Filter=AF-LG-00-18&FolderID=AF-LG-00-18-50-2&Tab=0)  [CSWS Data Exchange Requirements Workbook](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=10849089&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [Contractor Enabling Data Guide](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=10849092&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| List of data requirements for CSWS program to be included in contractual documentation/information. | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [1.23](#P1_23) | Include Product Support Activities in Integrated Master Plan/Integrated Master Schedule (IMP/IMS) | | Program Management Directive (PMD)  Acquisition Decision Memorandum (ADM) | |
| **DESCRIPTION:** | | | | |
| The IMP/IMS provides a basis for effective communication, serve as baselines for program plans, status and progress: and provides a basis for resource analysis, exploration of alternatives and cost, performance and schedule tradeoff studies. They should be integrated at all levels, contain sufficient detail and capture key events (e.g. acquisition, Training, Technical Data Management/Technical Orders, Support Equipment / Automatic Test Systems (SE/ATS) and Packaging, Handling, Storage & Transportation (PHS&T) logistics, National Environmental Policy Act (NEPA) and T&E perspectives). | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Develop a schedule to assess the adequacy of the logistics-related activities and outcomes in addressing Total Life Cycle System Management responsibilities, objectives, and cost impacts. Do all logistics activities provide traceability to the contractor’s Work Breakdown Structure (WBS)? 2. Has a formal program been establish and scheduled to identify actions necessary to achieve significant increases in reliability and reductions in the logistics footprint? Will they be verified in test and evaluation? 3. Has the following LCMP coordination and approval dates been annotated, in the schedule:    1. Local organizations – Competition Advocate, Procuring Contract office, Judge Advocate, Small Business, and appropriate ALC or Logistics Office.    2. ACAT I & II – SAF/AQX, SAF/AQC, SAF/GCQ & AF/A4L coordinated and signed (at a minimum). SAF/ACE & SAF/FMBI will review and coordinate for policy compliance.    3. ACAT III – will follow similar process at the local level. PEO is final approval authority. 4. Has it been identified and scheduled, to address all comments, to the LCMP, that need to be reviewed and deliberated by the IPT prior to forwarding to the MDA for approval? 5. Does the development schedule of the Life Cycle Management Plan (LCMP) include all offices/stakeholders? 6. Have supportability/logistics considerations been addressed to include the 12 Product Support Elements including Diminishing Manufacturing Sources and Material Shortages (DMSMS), reclamation, demilitarization and disposal.    1. Initial Capabilities Document/Capability Development document    2. Acquisition Strategy    3. Technology Development strategy    4. Acquisition Program Baseline    5. Test & Evaluation Strategy    6. Test & Evaluation Master Plan    7. NEPA and facilities / MILCON design and construction timelines 7. Has the Pre-Initial Operational Capability Supportability Review and Analysis been scheduled? 8. Has the Air Force logistics data systems, maintenance, supply, Technical Data, SE, PHS&T, and logistics training directives been scheduled to support the assurance of operational safety, suitability, and effectiveness for the Air Force systems and end item? 9. Has a schedule been developed for Post Deployment Reviews, periodic assessments of system support strategies vs. expected levels of performance & support? 10. To increase weapon system availability while reducing life cycle cost & the logistics footprint has the logistics manager scheduled periodic assessments, and where necessary, improvements of the product support strategy? | | [Program Management Directive (PMD)](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) (AFI 63-101,Para 3.37 )  [Acquisition Decision Memorandum (ADM)](https://centernet.hanscom.af.mil/acqdev/PMTB/ADM/ADM.htm)  [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management Sec 2.11  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx) (Chapters 4.5.2 & 11.3.1.4.2)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [AFPD 63/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life Cycle Management  [AFMCP 63-5](http://www.e-publishing.af.mil/shared/media/epubs/AFMCPAM63-5.pdf) Integrated Master Plan and Schedule Guide  [AFI 36-2251](http://www.e-publishing.af.mil/shared/media/epubs/AFI36-2251.pdf) Management of Air Force Training Systems  [IMP/IMS Preparation and Use Guide](http://www.acq.osd.mil/sse/docs/IMP_IMS_Guide_v9.pdf)  [USAF Project Managers Guide for design and construction](http://www.wbdg.org/ccb/AF/AFDG/pmguide.pdf) Page 1-3  [42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)  [40 CFR 1500](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=e2458d3be6a98885459d5ed542f76dab&c=ecfr&tpl=/ecfrbrowse/Title40/40cfrv33_02.tpl#1500)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl) | | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Life-Cycle Management (LCM) Tools  Professional Logistics Workforce identified  Total Life Cycle Systems Management (TLCSM)  Performance Based Agreement  Performance Based Agreement for Organic Supply Support  Designing and Assessing Supportability in Weapon Systems  Product Support: PM Guide to buying performance | | | | |

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| **TASK #** | **PROCESS NAME:** | | | **ENTRANCE CRITERIA:** | | | | |
| [1.25](#P1_25) | Ensure Cost Estimate includes All Support Costs | | | Program Established  Program Management Directive (PMD)  Acquisition Decision Memorandum (ADM) | | | | |
| **DESCRIPTION:** | | | | | | | | |
| Cost estimates cover the entire life cycle of a system and need to adequately address all of the product support elements, including disposal, to ensure the total life cycle cost is understood and used for management decisions. The logistician needs to make sure that all of the costs for acquiring; fielding, sustaining, and disposal are included. Major categories of cost are Intelligence Infrastructure, Support Equipment, Technical Data, Supply Support, Manpower, Personnel, Training & Training Equipment, Data, Depot Activation costs (if organic capability to be established), any Interim Contractor Support or Contractor Logistics Support costs to include Field Service representatives / maintenance activities / inventory management, sustaining engineering costs, depot maintenance, and organizational/intermediate level maintenance. | | | | | | | | |
| **CHECKLIST SUBTASKS:** | | | | | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | | | | **PHASE** | |
| 1. Engage as a team member on the Cost Estimating Team (FM is normally OPR for this task) and engage as a member on the program Integrated Risk Assessment (IRA) Team. 2. Ensure all 12 Product Support elements are addressed to include Depot Maintenance, O&I Maintenance, testing costs, transportation costs including SDT), Diminishing Manufacturing Sources and Material Shortages (DMSMS), demilitarization and disposal, planned modifications / upgrades, Intelligence, and integration costs if applicable. 3. Specifically include facilities / infrastructure requirements 4. Coordinate technical data such as RAM with Engineering. Ref 1.03.1 5. Ensure all identified costs above are used for applicable program tasks such as ECP’s/CCP’s, trade studies, SDT budgeting, and new work packages. 6. Participate in yearly updates of the Program Office Estimate and IRA activities to reflect any changes in the system data that would reflect in costs changes. Ensure Intelligence requirements are updated yearly. 7. Ensure Human Systems Integration implications, constraints & issues are addressed and included.   **Sample Documents:**  [Risk Management Plan Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880822&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | | [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [ILA Handbook](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplay.asp?Filter=OO-IN-MC-03&DocID=727896) The first part of the documents explains the Integrated Logistics Assessment (ILA) process.  [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management  [AFMC Guide to the Defense Depot Maintenance Council Cost Comparability Handbook](http://www.jdmag.wpafb.af.mil/cchb.pdf)  [AFPD 23-5](http://www.e-publishing.af.mil/shared/media/epubs/AFPD23-5.pdf) Reusing and Disposing of Materiel Paragraph 1  [DOD 4140.1-R](http://www.dtic.mil/whs/directives/corres/rtf/p41401r.doc) DOD Supply Chain Materiel Management Regulation  [DODI 4160.28](http://www.dtic.mil/whs/directives/corres/pdf/416028p.pdf) DOD Demilitarization (DEMIL) Program  [DOD 4160-28-M Vol. 1](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol1.pdf) Defense Demilitarization: Program Admin  [DOD 4160-28-M Vol 2](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol2.pdf) Defense Demilitarization: DEMIL Coding  [DOD 4160-28-M Vol 3](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol3.pdf) Defense Demilitarization: Procedural Guidance  [DOD DEMIL Web Page](https://demil.osd.mil/)  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [DOD Environment, Safety & Occupational Health Network & Information Exchange (DENIX)](http://www.denix.osd.mil/cmrmd/ECMR/index.cfmhttp:/www.denix.osd.mil/cmrmd/ECMR/index.cfm)  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) Para 3  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf) | | | | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support | |
| **EXIT CRITERIA:** | | | | | | | | |
| Approved Integrated Risk Assessment, POE or other cost estimate as described in AFI 63-101  Documentation of the source data for the POE product support elements | | | | | | | | |
| **TASK #** | | **PROCESS NAME:** | | | **ENTRANCE CRITERIA:** | | | |
| [1.26](#P1_26) | | Prepare Documentation for Milestone A | | | Determination that MSD for MS A is required | | | |
| **DESCRIPTION:** | | | | | | | | |
| There are two types of decision points: milestone decisions and decision reviews. Each decision point results in a decision to initiate, continue, advance, or terminate a project or program work effort or phase. The review associated with each decision point typically addresses program progress and risk, affordability, program trade-offs, acquisition strategy updates, and the development of exit criteria for the next phase or effort. The Milestone Decision Authority approves the program structure, including the type and number of decision points, as part of the acquisition strategy. Per 10 USC 2366A the MDA must provide a signed certification memorandum for record prior to Milestone A approval. Milestone A authorizes entry into the major acquisition process phase for Technology Development. The purpose of this phase is to reduce technology risk and to determine the appropriate set of technologies to be integrated into a full system. | | | | | | | | |
| **CHECKLIST SUBTASKS:** | | | | | | | | |
| **TASK** | | | | | | **SOURCE DOCUMENTATION** | | **PHASE** |
| Review and make inputs to applicable documents required by statute or regulation before milestone decision | | | | | | [Milestone A Documentation](https://akss.dau.mil/dag/DoD5000.asp?view=framework)  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enc. 4 page 34  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AFPD 63/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life Cycle Management  [10 USC 2366](http://www.gpoaccess.gov/uscode/index.html) | | Technology Development |
| **EXIT CRITERIA:** | | | | | | | | |
| Milestone decision approved  All proper supporting documentation put in the official files | | | | | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.02.1](#P2_02_1) | Establishing a Technical Order Acquisition Program | Initial Capabilities Document (ICD)  Draft Capability Development Document (CDD)  Maintenance Strategy  Product Support Strategy | | |
| **DESCRIPTION:** | | | | |
| Technical order requirements must be planned and placed on contract to ensure completion and delivery concurrent with the equipment or hardware. The organization or individual assigned TO acquisition responsibility is called the Technical Order Manager. This checklist gives instruction on how to initiate a technical order acquisition program from development of the strategy to initial contract award. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Establish Technical Order (TO) acquisition program by appointing an experienced technical order manager(s), provide training as needed, and establishing a TO Integrated Program Team.      1. Determine TO program strategy, objectives and requirements by convening a Technical TO Planning & Requirements Conference. The TO program strategy must address the full life cycle of TOs for acquisition, sustainment, management, distribution, and use. 2. Develop TO contract requirements that clearly specify technical order requirements, including for delivery. Use latest version of Technical Manual Contract Requirements (TMCR) Document TM 86-01, to place TOs on contract.   **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TMCR Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880839&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | | [Establish Technical Order Acquisition Program](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=105414)  [Appoint TO Manager](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=99811)  TO 00-5-3 Air Force Technical Order Acquisition Procedures  TO 00-5-1 AF Technical Order System  TO 00-5-18 USAF Technical Order Numbering System  [Enhanced Technical Information Management System (ETIMS)](https://www.my.af.mil/gcss-af61/ETIMS/index.jsp) ETIMS is the prescribed method of accessing the 00-5 series of TOs. To request access, users should send an e-mail to [af.todo1@eglin.af.mil](file:///E:\AS%20Tool%20Kit\25-29%20Jan%2010%20SCO\ASTK\Updated%20Checklists\af.todo1@eglin.af.mil) which identifies their full name, AF portal ID and the TOs or TO Series to which access is required  [Develop TO strategy](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=466413)  [Technical Order Contract Requirements](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=105442)  [TO Delivery Requirements](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=105476)  [TM 86-01](https://techdata.wpafb.af.mil/toprac/working.htm)  [Technical Order Fact Sheet](http://www.tinker.af.mil/library/factsheets/factsheet.asp?id=6082) | Technology Development |
| **EXIT CRITERIA:** | | | | |
| Development of Technical Manual Contract Requirements (TMCR) Document, TM-86-01 | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.04](#P2_04) | Initiate the Depot Source of Repair (DSOR) Process | Technology Development Strategy (TDS)  Initial Capabilities Document (ICD)  Capability Development Document (CDD)  Capability Production Document (CPD)  Cost Analysis Requirements Document (CARD)  Analysis of Alternatives (AOA)  Systems Engineering Plan (SEP)  Test and Evaluation Master Plan (TEMP)  Life Cycle Management Plan (LCMP) | | |
| **DESCRIPTION:** | | | | |
| All Air Force depot level maintenance posturing decisions are made through the Depot Source of Repair process. Sub-processes include a Strategic Source of Repair (SSOR), a Source of Repair Assignment Process (SORAP), and a Depot Maintenance Interservicing (DMI) process. The SSOR and SORAP processes determine the best long-term depot maintenance source of repair (SOR) for Air Force workloads while giving full consideration to the requirements of public law, Air Force policy, and which maximize weapon system sustainment to the warfighter with minimum use of scarce USAF resources. Air Force Instruction (AFI) 63-101, Acquisition & Sustainment Life Cycle Management, defines how a product support strategy integrates acquisition and sustainment throughout the weapon system’s life cycle. The DMI process determines the final SOR location with consideration to all DOD Services. The Logistician will use the Depot Source of Repair Electronic Management (DSOR-EM) tool to complete and track the DSOR process. A Weapon System may require multiple DSORs depending on complexity. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Logistician decides if DSOR required using AFI 63-101    1. Identify and define requirements    2. Initiate Template A in DSOR EM requesting core and candidate depot    3. Provide Phase 1 data using appropriate template format       1. [Template A](https://org.eis.afmc.af.mil/sites/HQAFMCA4/A4D/A4DC/DSOR-CS/DSORSORAP%20Metrics/Forms/AllItems.aspx?RootFolder=%2fsites%2fHQAFMCA4%2fA4D%2fA4DC%2fDSOR%2dCS%2fDSORSORAP%20Metrics%2fTemplates%2dForms%2fTemplate%20A%20%28New%20Acq%2c%20New%20Work%2c%20Mod%20F) – New Start/Modification       2. [Template B](https://org.eis.afmc.af.mil/sites/HQAFMCA4/A4D/A4DC/DSOR-CS/DSORSORAP%20Metrics/Forms/AllItems.aspx?RootFolder=%2fsites%2fHQAFMCA4%2fA4D%2fA4DC%2fDSOR%2dCS%2fDSORSORAP%20Metrics%2fTemplates%2dForms%2fTemplate%20B%20%28Workload%20Shift%29&FolderCTID=&View=%25) – Workload Shift    4. Decide if Commercial Statement is required. If no, proceed to HQ AFMC/A4D with request. If yes, seek Commercial Statement documentation (requires PK/JAG signature) and provide this with request to HQ AFMC/A4D.    5. The Logistician will track status through DSOR-EM Tool throughout the remainder of the DSOR Process. 2. Once HQ AFMC provides Candidate Depot and Core Assessment the Logistician will establish DSOR Team to initiate the SORAP (Reference DSOR CoP).    1. Members may include OEM, candidate depot, sustainment manager and other key stakeholders as appropriate    2. Team stays formed throughout acquisition to activation (changes into Depot Maintenance Activation Working Group (DMAWG)) 3. DSOR Team evaluates workload    1. Determine system support impacts    2. Understanding of depot repair requirements    3. Determine if and what additional data is required    4. Validate/correct candidate depot assignments    5. Is candidate depot “interested” in your depot workload?    6. Will costing effort be required?    7. Is data available from actual system?    8. Is data available from “like” systems?    9. Gather SORAP Template data as appropriate    10. Define depot maintenance and acquisition strategy    11. Assess depot facilities / infrastructure impacts    12. Develop Partnering strategy with stakeholders/ depots    13. Update acquisition strategy plan & Life Cycle Management Plan with partnering strategy AFI 63-101 Para 3.39 4. Conduct Cost Benefit Analysis (CBA) for non-core depot workloads    1. Validate organic / contractor estimates    2. Partnering may be an option 5. Draft SORAP Template to include recommendation / cost estimate    1. Coordinate with all stakeholders and obtain consensus with SOR recommendation    2. Ensure appropriate template is filled in DSOR-EM    3. Transmit Template A to HQ AFMC/A4D    4. HQ AFMC/A4D will provide 50/50 assessment and HQ AFMC/A4 concurrence/non-concurrence 6. Initiate Depot Maintenance Interservicing (DMI) 30 days after receipt of HQ AFMC/A4 concurrence    1. Fill out JG-DM Forms 27, 28 and 44    2. Prepare cover letter and submit to HQ AFMC/A4D 7. Develop a Depot Maintenance Implementation Plan and submit to HQ AFMC/A4D | | | [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management Para 3.89  [AFPAM 63-128](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-AQ-DB&DocID=183691) Guide to Acquisition & Sustainment Life Cycle Management Sec 2.11  [JG-DM Form 27](https://org.eis.afmc.af.mil/sites/HQAFMCA4/A4D/A4DC/DSOR-CS/DSORSORAP%20Metrics/Forms/AllItems.aspx?RootFolder=%2fsites%2fHQAFMCA4%2fA4D%2fA4DC%2fDSOR%2dCS%2fDSORSORAP%20Metrics%2fTemplates%2dForms%2fJG%2dDM%20Form%2027&FolderCTID=&View=%7b84EBF0CB%2dD3BE%25)  [JG-DM Form 28](https://org.eis.afmc.af.mil/sites/HQAFMCA4/A4D/A4DC/DSOR-CS/DSORSORAP%20Metrics/Forms/AllItems.aspx?RootFolder=%2fsites%2fHQAFMCA4%2fA4D%2fA4DC%2fDSOR%2dCS%2fDSORSORAP%20Metrics%2fTemplates%2dForms%2fJG%2dDM%20Form%2028&FolderCTID=&View=%7b84EBF0CB%2dD3BE%25)  [JG-DM Form 44](https://org.eis.afmc.af.mil/sites/HQAFMCA4/A4D/A4DC/DSOR-CS/DSORSORAP%20Metrics/Forms/AllItems.aspx?RootFolder=%2fsites%2fHQAFMCA4%2fA4D%2fA4DC%2fDSOR%2dCS%2fDSORSORAP%20Metrics%2fTemplates%2dForms%2fJG%2dDM%20Form%2044&FolderCTID=&View=%7b84EBF0CB%2dD3BE%25)  [Depot Source of Repair (DSOR) Community Site](https://org.eis.afmc.af.mil/sites/HQAFMCA4/A4D/A4DC/DSOR-CS/DSORSORAP%20Metrics/Forms/AllItems.aspx?View=%7b84EBF0CB%2dD3BE%2d4F9C%2d9C61%2d0C61DB387807%7d)  [AFI 65-508](http://www.e-publishing.af.mil/shared/media/epubs/AFI65-508.pdf) Cost Analysis Guidance and Procedures  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See checklists D-2, D-9, D-10, D-11, E-1, F-1  [AFPD 63/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life Cycle Management  [AFI 63-131](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-131.pdf) Modification Program Management.  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [CARD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880725&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP Samples](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE) [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Completed SSOR (Task 1)  Candidate Depot / Core Assessment Request (Task 1)  DSOR Team (Task 2)  Update to LCMP (Task 3)  Completed CBA (Task 4)  Signed SORAP (Task 5)  DMI Decision Memo (Task 6)  Depot Maintenance Implementation Plan (Task 7) | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.06](#P2_06) | Establish Depot Maintenance Activation Working Group (DMAWG) Team | Identification of new acquisitions with depot repair capabilities  Initial SORAP identifying organic with a mission assignment | |
| **DESCRIPTION:** | | | |
| The objective of the DMAWG is to ensure a required depot maintenance capability is set up in a timely and efficient manner to achieve government-controlled capabilities for the depot repair. The DMAWG is the forum for conducting depot maintenance activation planning to ensure funding, contracting, and delivery of data is accomplished. If support concept is total Contractor Logistics Support (CLS), a DMAWG is not required; however a Contractor Depot Activation Plan is still required. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK :** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. A logistics support plan which defines contractor support and government activities is developed. Be sure to include all 12 Product Support Elements. 2. System Program Manager appoints a Logistician as DMAWG chair 3. DMAWG chair calls for membership with the assigned depot 4. Develop a DMAWG charter 5. Review and ensure depot support requirements are adequately described 6. Identify participating DMAWG organizations (Maintenance Activation Planning Team) 7. Develop, coordinate and maintain depot activation plans 8. Determine depot activation requirements (facilities, communications requirements, training, SE/ATS, PHS&T, Environmental Safety & Occupational Health (ESOH), manpower and personnel) 9. Assist in developing funding requirements for depot support 10. Maintain depot activation schedules 11. Conduct DMAWGs and coordinate activation activities 12. Ensure contractor has capability to support interim logistics support until transfer to organic repair. | | [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Material Management  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [AFI 21-102](http://www.e-publishing.af.mil/shared/media/epubs/AFI21-102.pdf) Depot Maintenance Management (Chap. 2, Para 2.2)  [AFMCI 21-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI21-101.pdf) Depot Maintenance Activation Planning (DMAP) (Chap. 1)  [AFI 33-104](http://www.e-publishing.af.mil/shared/media/epubs/AFI33-104.pdf) Base Level Planning & Implementation  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-3, D-9  [AFH 32-1084](http://www.e-publishing.af.mil/shared/media/epubs/AFH32-1084.pdf) Facility Requirements | Engineering & Manufacturing Development  (No later than 30 days after Preliminary Design Review and prior to Milestone B) |
| **EXIT CRITERIA:** | | | |
| Depot activation plan  Minutes of DMAWG  Final SORAP Complete  When all identified activations have taken place | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.10](#P2_10) | Facilities Concept Checklist | Milestone A Approval  Initial Capabilities Development | | |
| **DESCRIPTION:** | | | | |
| Identifying and tracking facilities begins early during the operational site reviews when a mission beddown, realignment, transfer, conversion, activation/inactivation, or operational change begins with a site survey tasking for a particular program. The tasking is assessed and assigned to a MAJCOM Installations & Units Action Officer. The action officer reviews the tasking with the program manager and discusses an implementation strategy, to include possibilities of a site survey, a MAJCOM programming plan (PPLAN), environmental concerns and issues, and possible Site Activation Task Force meetings. The action officer acts as the focal point for the PPLAN process and serves as the site survey team chief. A site survey is defined as an authorized visit to survey real property, i.e., facilities/infrastructure and land, to determine its feasibility for unit or mission beddown. The following are some general guidelines for preparing for a site survey. The timelines can vary depending on the urgency of the action and the proposed effective date. The Logistician should review and make input to any supportability documents required by statute or regulation before Milestone Decision can be sought and rendered. Facilities summaries are especially relevant because of the long lead-time normally required for establishing or modifying facilities. These summaries shall identify all facilities/infrastructure requirements needed to support the program including communications, test equipment, training aids, building size and any other special considerations especially the habitability and ESOH issues to facilitate safe and effective operations, consistent with the operational and sustainment concepts. The Logistician, in conjunction with Civil Engineering, should perform analyses (to include HSI) to define necessary facilities/infrastructure or improvements, review and make input to key documents required by statute or regulation before Milestone Decision can be sought and rendered. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Provide inputs to MAJCOM in determining proposed beddown date, aircraft delivery schedule, aircraft numbers (PAA/BAI), manpower and personnel impacts, mission unique requirements, and impacts on base operating support. 2. Coordinate on site survey objectives, proposed actions, and facilities/infrastructure requirements with MAJCOM. Provide beddown recommendations based on potential beddown sites and facility options. 3. Participate in site survey, as required.  * Attend site survey team in-brief to Wing Commander, staff, and base-level functional managers on the purpose of the visit. * The site survey team will be briefed on potential beddown sites and facility options. * In most cases, the team is taken on a tour of applicable base facilities. * The team will breakout into working groups and the logistician will support the logistics activity; attend integration meetings; participate in outbrief preparation, and assist in the development of site survey report. * At the conclusion of the site survey the Site Survey Team Chief will send out an e-mail advising everyone that the final site survey report is available (usually posted on a web site).  1. In some cases, MAJCOM may request support to develop and publish their PPLAN for beddown action. The PPLAN describes the program, outlines the milestones, and identifies the associated tasks. It also forms the basis for a future Site Action Task Force. See Task 4.14 SATAF. 2. In coordination with base Civil Engineering the Logistician shall address integrated site survey activities to include:  * Begin analysis comparing existing allocated space at test, depot, training and operational locations to determine specific facilities requirements to support the system. * Verify maintenance and storage facilities options (contractor or organic, another Service, etc.) * Determine if existing facilities/infrastructure can be used and if new or modified support facilities are required. * Ensure Energy Efficiency, and Alternate Fuels considerations are addressed * Verify environmental compliance, pollution prevention and recovery or disposal considerations in the facilities consideration. * Determine habitability and occupational health related issues that must be accommodated to facilitate safe, effective operations. * Determine communication requirements including access and connectivity. * Ensure that the National Environmental Policy Act (NEPA) process is started.  1. For program requirements the logistician should consider the following facilities/infrastructure questions and incorporate into the POM process as required. Ref. Task 2.11 MILCON/Sustainment, Restoration & Modernization.  * Do the facilities meet peacetime and wartime objectives? Are deployed facilities required? Review applicable operational effectiveness analyses for basing considerations * Do you have organic depot cost estimates to support depot repair? * Do you have contractor depot cost estimates to support depot repair? * Is there special facility requirements needed for system software sustainability? * What is the status of facilities design planning? * What risks have been identified and what are the mitigation plans? * Have environmental compliance, pollution prevention and recovery or disposal considerations been updated from materiel solution analysis for the facility? * Are there any unique habitability or occupational health issues to be considered to support the system(s)? * Verify NEPA process being used reference Checklist 2.10.2 * If the deployment of a weapon system is an overseas location it may require the host nation acquire land and provide infrastructure support (power, water, communications, etc.) and/or facility support (construction of facilities to support installation of the system). * Identify communications requirements and perform an RF site survey to fully understand the behavior of radio waves within a facility before installing wireless network access points  1. Ensure additional requirements for equipment for facility operations are identified and programmed by the appropriate user (special equipment, communications Equipment, Office furniture, etc.)   Note: Facilities – vertical structures that house people and or equipment, i.e. Buildings.  Note: Infrastructure (for Civil Engineering) includes support elements such as, water, electrical distribution, communications, sewage, storm lines , natural gas lines, fuel storage, pavements, runways, etc. | | | [AFI 10-503](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-503.pdf) Base Unit Beddown Program  [MIL-HDBK-502](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=201462) DOD Handbook Acquisition Logistics Section 6.1.1, 5.e & 8, Section 7.3.1  [MIL-STD-3007F](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=208701) Unified Facilities Criteria and Unified Facilities Guide Specifications  [AFI 32-1024](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-1024.pdf) Standard Facility Requirements  [AFPD 10-5](http://www.e-publishing.af.mil/shared/media/epubs/AFPD10-5.pdf) Basing  [AFI63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management Para. 3.23  [ASCI 32-101](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=6361740&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82), Facilities Support to Program Offices and Program Directors  [AFI 10-501](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-501.pdf) Program Action Directives (PAD) and Programming Plans (PPLAN)  [AFI 32-1032](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-1032.pdf) Planning & Programming, Appropriated Funded Maintenance, Repair, & Construction Projects  [42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)  [40 CFR 1500](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=801c8988a5cb85fd75f3c1d7452dcaf1&rgn=div5&view=text&node=40:33.0.3.3.1&idno=40)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AFI 32-9004](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-9004.pdf) Disposal of Real Property  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 28  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-9  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [POM Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880748&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [Site Survey Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880826&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development  Engineering & Manufacturing Development  Production & Deployment |
| **EXIT CRITERIA:** | | | | |
| Site Survey Report  PPLAN  POM Inputs  All proper supporting documentation put in the official files | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.10.1](#P2_10_1) | Determining Manpower and Personnel Requirements | Target Audience Description (TAD)  Draft Maintenance Concept  Cost Analysis Requirements Description (CARD)  Initial Capability Document (ICD)  Capability Development Document (CDD)  Capability Production Document (CPD)  Life Cycle Management Plan (LCMP)  Analysis of Alternatives AoA’s  Systems Engineering Plan (SEP) | | |
| **DESCRIPTION:** | | | | |
| The logistician must ensure through contact with the MAJCOM, Product Centers and Air Logistics Centers that manpower and personnel considerations are appropriately documented. HSI subject matter experts can assist in this effort. (MAJCOM HSI cell or 711 HPW/HP)  **Personnel:** Refers to the specific knowledge skills and abilities of the individual.  **Manpower:** A critical resource that supports an approved program. It is not a program by itself and should not be manipulated separately from the program it supports.  **Manpower Requirement:** A statement of manpower needed to accomplish a job, workload, mission, or program. There are two types of manpower requirements: funded and unfunded. Funded manpower requirements are those that have been validated and allocated. Unfunded requirements are validated manpower needs but deferred because of budgetary constraints. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Participate in requirements discussions related to operators, maintainers or support personnel; interpret the User’s needs and requirements (including Manpower and personnel implications, constraints, and issues) and develop strategy for addressing. 2. Participate in activities that address Manpower, personnel, training, human factors engineering, environmental, safety, occupational health, health hazards, habitability, Intelligence, supportability or any other Product Support element or related areas (such as maintenance concept, organizational structure, knowledge, skills and abilities, or cognitive requirements) and provide guidance on accommodating Manpower into the design, or identify the effects the design will have on the operator or maintainer.   Manpower high drivers include:   * Tasks that require high frequency man- hour/manpower * Tasks that are labor intensive * Tasks that require multiple persons to perform * Weapon system designs and organizational designs that increase manpower requirements  1. Assure Manpower and personnel requirements are clearly reflected in the system functional baseline and that they are feasible and testable/verifiable. 2. Assure reliability, maintainability; design analysis, Engineering Change Proposals (ECPs) and trade studies reflect any impact on Manpower and personnel issues. 3. Assure Manpower and personnel considerations are included in acquisition documentation. 4. The Manpower Estimate Report (MER) which is required by 10 U.S.C. Section 2434 for all Major Defense Acquisitions Programs (MDAP), ACAT I, is prepared by the DOD Component’s operating command with inputs from the implementing, supporting and participating commands manpower authority, or its designee, in support of Milestones B, C and Full-Rate Production (FRP). ACAT II and below programs are not required 5. Manpower and personnel issues and concerns:  * Is there a legacy system to use as a manpower and personnel baseline? * Do the manpower levels need to be constrained to the same level as the predecessor system? * Will the manpower mix (military, civilian, contractors) be the most efficient and cost effective? * Is there a mandate to optimize or reduce manpower authorizations? * Have manpower authorizations been justified and/or modified to meet mission need? * Will an increase in end-strength be required? * What are the end-strength offsets? * Approximately how many authorizations will it take to operate, maintain, train and support the full capability? *(Full capability includes all operational and maintenance (local and remote) components.)* * What manpower estimate was used for the affordability assessment? * How does the manpower estimate compare to current requirement and authorizations? * How much could manpower grow before it would impact the affordability decision? * If the manpower estimate is greater than authorizations, what is the resource sponsor’s position regarding funding? * Once manpower and personnel requirements are identified, ensure the program inputs them to the POM. | | | [CJCS 3170.01G](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3170_01.pdf) Joint Capabilities Integration and Development System (JCIDS)  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities-Based Requirements Development This document support JCIDS process  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [Systems Engineering Plan (SEP) Outline](http://www.acq.osd.mil/se/docs/PDUSD-Approved.SEP_Outline-04-20-2011.docx)  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx) (See Chapters 3,4, 5, and 6  [10 USC 2434](http://www.gpoaccess.gov/uscode/index.html)  [AFI 38-201](http://www.e-publishing.af.mil/shared/media/epubs/AFI38-201.pdf) Determining Manpower Requirements See Para 11.2.3, Attachment 8, Table A8.1.  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Designing and Assessing Supportability in DOD Weapon Systems (A Guide to Increased Reliability and Reduced Logistics Footprint)](https://acc.dau.mil/GetAttachment.aspx?id=32566&pname=file&aid=6167)  See Chapter 3, but scan entire document for further information  [Target Audience Description Guide](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3539339&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [AFI 38-204](http://www.e-publishing.af.mil/shared/media/epubs/AFI38-204.pdf) Programming USAF Manpower  [HSI Acq Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 34 & 38  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) page 11-12  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) page 16 table 2  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [CARD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880725&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [MER Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880804&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [LCC Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880742&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [POM Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880748&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Inputs into Analysis of Alternatives (AoAs)  Input into Systems Engineering Plan (SEP)  Input into Maintenance Concept  Inputs into Training Plans  Inputs into Test and Evaluations Master Plans (TEMP)  Input into Initial Capabilities Document (ICD)  Input into Capabilities Development Document (CDD)  Inputs into Production Capability Document (PCD)  Input into Life Cycle Management Plan (LCMP)  Input into Manpower Estimate Report (MER)  Input into Life Cycle Cost (LCC) Estimates  Input to the Program Objective Memorandum (POM)  Participate in SACOM Interview | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.10.2](#P2_10_2) | Address National Environmental Policy Act (NEPA) requirements | Initial Capabilities Document (ICD)  Life Cycle Management Plan (LCMP)  Systems Engineering Plan (SEP)  Analysis of Alternatives (AoA)  Draft Capabilities Development Document (CDD)  Draft Capabilities Production Document (CPD)  Site Survey  Other Program Documentation as it becomes available | |
| **DESCRIPTION:** | | | |
| The process to ensure compliance with the National Environmental Policy Act (NEPA) of 1969 (42 USC 4321). NEPA requires environmental impact assessments for agency actions to examine all viable alternatives for environmental impacts and to identify potential mitigation efforts. This task includes the planning required for compliance and influencing the design process to fulfill NEPA requirements. Ensure that design impacts are included in the HSI planning. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Participate in program activities ensuring the NEPA issues are addressed, such as hazardous materials/waste, AICUZ, air quality, water resources, safety and occupational health, biological resources, cultural resources, geology and soils, and socioeconomic. 2. Determine planned programmatic events that affect the environment, examples include, but are not limited to: Prototype development, testing, beddown, depot activation and additional base activations. 3. Determine locations and dates that events will occur and initiate AF IMT 813 to begin NEPA process. 4. Coordinate completion of AF IMT 813 with environmental office where events are taking place 5. Support follow-on environmental assessments. 6. Ensure a copy of the AF IMT 813 is maintained in program office files. 7. Document NEPA compliance schedule in PESHE (an acquisition program ESOH strategy document required by DODI 5000.02) 8. Specifically the stand up of a program office requires an AF IMT 813 to be completed. 9. Ensure NEPA mitigation is addressed in planning, budgeting, funding and program executions. Ensure HSI planning includes these mitigation efforts. | | [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  [42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)  [40 CFR 1500](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=801c8988a5cb85fd75f3c1d7452dcaf1&rgn=div5&view=text&node=40:33.0.3.3.1&idno=40)  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AF IMT 813](http://www.e-publishing.af.mil/shared/media/epubs/af813.xfd)  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf) Air Installation Compatible Use Zones (AICUZ)  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See checklists C-1, D-1, 5, 8, 9, 11, 12, 16, E-1  [AFI 32-7006](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7006.pdf), Environmental Program in Foreign Countries  [AFI 32-7061](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7061.pdf), The Environmental Impact Analysis Process  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 54 | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production and Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | |
| AF IMT 813  Updated AoA  Updated LCMP  Updated TEMP  Updated CDD  Updated SEP  Updated CPD | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.11](#P2_11) | Define and Implement Military Construction (MILCON) and Sustainment, Restoration & Modernization (SRM) Requirements | Concept of Operations (CONOPS)  Initial Capabilities Document (ICD)  Capability Development Document (CDD)  Program Management / Expectation Management Agreement (PMA/EMA)  Site Survey | |
| **DESCRIPTION:** | | | |
| This checklist is intended to define, review and implement requirements for any new or modified facilities and associated facilities equipment for purposes of supporting the MILCON and SRM processes. MILCON is 3300 funding. SRM is 3400. \*\*\*Considerations for National Environmental Policy Act (NEPA) lead time must be included in the facilities MILCON and minor construction schedule. Reference Task 2.10.2 | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Determination of facility requirements begins with site survey. Participants should include, but are not limited to Program Office, Lead Command, Using Command, and base-level user 2. Following the site survey, the base-level user submits AF Form 332, Environmental Assessment, Economic Assessment, communications requirements etc. Final package is forwarded to the Using or Lead Command on DD Form 1391. Ensure depot facilities are included 3. The logistician should contact the using command, lead command, and depot to ensure the facilities process is on track, including CSO requirements 4. Program Office provides POM inputs to Using or Lead Command. For MILCON, using or Lead Command identifies and POMs funding to support fielding of the system through HQ AF   NOTE: For minor construction projects (less than $750K) coordinate with Using or Lead Command to ensure facilities are available to support bed down of the system. If minor construction project of 750K or less, 3400 dollars are used. Check to see who is responsible for SRM funding (base or program office).  Consider a facilities requirement plan as a CDRL from the prime contractor | | [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [AFI 32-1032](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-1032.pdf) Planning & Programming, Appropriated Funded Maintenance, Repair, &  Construction Projects  [AFI 33-104](http://www.e-publishing.af.mil/shared/media/epubs/AFI33-104.pdf), Base Level Planning & Implementation  [AFI 32-1021](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-1021.pdf) Planning and Programming Military Construction (MILCON) Projects  [AF Form 332](http://www.e-publishing.af.mil/shared/media/epubs/af332.xfd)  [AF Form 813](http://www.e-publishing.af.mil/shared/media/epubs/af813.xfd)  [DD Form 1391](http://www.dtic.mil/whs/directives/infomgt/forms/forminfo/forminfopage2125.html)  [AF Form 3215](http://www.e-publishing.af.mil/shared/media/epubs/AF3215.xfdl)  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  **Sample MILCON Documents:**  [MILCON Process Bullet Background Paper](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3539186&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [Sample MILCON Questionnaire](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3539337&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  **Sample Documents:**  [Site Survey Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880826&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [POM Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880748&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PMA/EMA Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880785&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Engineering & Manufacturing Development  Production and Deployment |
| **EXIT CRITERIA:** | | | |
| Funding provided to accomplish MILCON project construction  Inputs to Program Objective Memorandum (POM) for minor construction | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.18](#P2_18) | Refine Supportability Objectives | Capability Development Document (CDD)  Key Performance Parameters (KPPs)  Developed Product Support Capabilities  Life Cycle Management Plan (LCMP) | | |
| **DESCRIPTION:** | | | | |
| The objective of most support system design activities is to identify support considerations (e.g., constraints) which may influence selection. The logistician should address all supportability analysis needed to analyze, define, and verify the supportability thresholds and objectives for a system and to assess the risks in accomplishing them. Early in the process, the issue of tradeoffs must be raised during the analysis of proposed concepts. Careful use of tradeoff studies will guide the logisticians in finding the optimal design—one which balances design objectives with supportability requirements. The supportability analysis is an analytical tool, conducted as part of the systems engineering process to determine the most cost-effectively support for the system over its entire life cycle. It provides the basis for related design requirements that may be included in specifications. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensure a logistician is involved on the team that develops the Systems Engineering Plan 2. Analyze Operational Capabilities & Environmental Constraints 3. Ensure consistency with Air Force Logistics Enterprise Architecture (AFLMA) 4. Refine Concept Performance (& Constraints) Definition & Verification Objectives 5. Review ICD and draft CDD 6. Review Test & Evaluation Test Strategy 7. Review Support and Maintenance Concepts for all 12 Product Support Elements. Specifically for Support Equipment, minimize peculiar support equipment. 8. Review and update Item Unique Identification (IUID) and System Lifecycle Integrity Management (SLIM) requirements 9. Decompose Concept Functional Definition into Component Concepts & Assessment Objectives 10. Refine Component Concepts 11. Refine Intelligence supportability analysis. Reference Appendix A, Checklist 1.04 12. Refine program protection planning process 13. Address Environment, Safety & Occupational Health (ESOH) considerations 14. Ensure Human Systems Integration implications, constraints & issues are addressed and included   Note: Review LogEA CONOPS for compliance with architecture  **Sample Documents:**  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | | [CJCS 3170.01G](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3170_01.pdf) Joint Capabilities Integration and Development System (JCIDS)  [Systems Engineering Plan (SEP) Outline](http://www.acq.osd.mil/se/docs/PDUSD-Approved.SEP_Outline-04-20-2011.docx)  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering Para 2.9.5  [Designing and Assessing Supportability in DOD Weapon Systems (A Guide to Increased Reliability and Reduced Logistics Footprint)](https://acc.dau.mil/GetAttachment.aspx?id=32566&pname=file&aid=6167) Entire document provides a general understanding on JCIDS.  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities Based Requirements Development This document supports the JCIDS process  [MIL-HDBK-502](https://acc.dau.mil/CommunityBrowser.aspx?id=32543) DOD Handbook Acquisition Logistics General information document on Acquisition Logistics  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-3  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [Log EA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [DODI 8320.04](http://www.dtic.mil/whs/directives/corres/pdf/832004p.pdf) Item Unique Identification (IUID) Standards for Tangible Personal Property  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 28  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) para. 5.2.3 page 43 | Technology Development |
| **EXIT CRITERIA:** | | | | |
| Updated Systems Engineering Plan (SEP)  Updated System Support and Maintenance Concepts  Updated Acquisition Plan  Updated Life Cycle Management Plan | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.18.1](#P2_18_1) | Consider application of modeling, simulation and analysis (MS&A) tools | Initial Technical Review (ITR)  Alternative System Review (ASR)  System Requirements Review (SRR)  System Functional Review (SFR)  Preliminary Design Review (PDR)  Critical Design Review (CDR)  Post PDR Assessment  Test Readiness Review (TRR)  Operational Test Readiness Review (OTRR)  System Verification Review (SVR)  Production Readiness Review (PRR)  Full Rate Production/Deployment Review (FRPDR) | | |
| **DESCRIPTION:** | | | | |
| Each program is required to develop an Modeling & Simulation (M&S) strategy (unless it receives a waiver) to be included in their Acquisition Plan or Single Acquisition Management Plan which illustrates how the use of models and simulations will benefit the program. The strategy is framed around development of a Distributed Product Description (DPD) in an integrated manner across three dimensions:   1. The M&S hierarchy of campaign, mission, engagement, and engineering models 2. The contextual domain of models including requirements definition, design, cost, performance, military worth, sustainability, Test & Evaluation (T&E), and 3. The life-cycle of the system from early requirements planning stages through acquisition, evaluation, fielding, sustainment, and disposal.   Additional types of analyses include: operational combat effectiveness, survivability, virtual, vulnerability, supportability, IOT&E, and live fire test and evaluation (LFT&E). These types of analyses cover the entire life cycle of a system and need to adequately address all of the product support elements. Modeling & Simulation should include the human. MS&A can assist the logistician in accomplishing their primary goals and objectives of:   1. Influence product design for affordable system operational effectiveness 2. Design and develop the support system utilizing Performance Based Logistics 3. Acquire and concurrently deploy the supportable system 4. Maintain/improve readiness, improve affordability, and minimize logistics footprint. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| The logistician should be prepared to assist the PM in the following type tasks:   1. Identify the Key Performance Parameters (KPPs) and other measures that indicate system effectiveness and system availability    1. System Availability includes Reliability, Maintainability and Supportability (RMS). Inherent within these, usability and accessibility of the equipment and software should be considered.    2. Product Support Package (includes requirements for the 12 product support elements: Supply Support, Maintenance Planning & Management, Support Equipment/Automatic Test Systems, Tech Data Management / Technical Orders, Manpower & Personnel, Training, Facilities, PHS&T, Design Interface, Computer Resources, Sustaining/Systems Engineering and Protection of Critical Program Information & Anti-Tamper Provisions    3. Logistics assessments for monthly, quarterly, annual reports (MAR, DAES, SAR) 2. Identify the available models and simulations for use and reuse from the Air Force Standard Analysis Tool Kit (AFSAT) (AFI 16-1003) 3. Advocate the use of M&S to address HSI considerations in alternative solutions (particularly valuable in addressing manpower impacts) 4. Ensure M&S tools used or developed have been approved through the VV&A process (AFI 16-1001) 5. Provide support to develop and execute program M&S strategy. Consider data requirements availability & pedigree. 6. Assist in updating M&S strategy prior to each milestone review 7. Assist PMs in identifying valid resources to meet their M&S requirements and coordinate these requirements with the appropriate OPR 8. Develop a process to collect and prioritize acquisition-related M&S requirements (DPDs, threat models, data and environments) from across the Air Force and identify key DPDs and other common-use M&S related products developed by acquisition programs that will be retained for re-use 9. Develop guidelines and procedures governing the release of Program Office-owned or managed DPDs consistent with current Air Force policy 10. Provide M&S requirements both logistics and Intelligence perspectives (DPDs, threat models, data and environments) not in a PMD or ORD to the AFMC-designated office collecting these requirements 11. Develop and be responsible for configuration control of current DPDs and other M&S products required to support program office acquisition activities 12. Coordinate with the AFMC MSRR Resource Coordinator and Air Force Agency for Modeling and Simulation (AFAMS) to ensure applicable information from the program’s M&S strategy and DPDs are linked to the AF MSRR 13. Coordinate with the Air Force Operational Test and Evaluation Center (AFOTEC) to ensure program use of M&S is consistent between the program office and the operational testers   Note: Modeling and Simulation is valuable in addressing manpower impacts and considerations | | | [DODD 5000.59](http://www.dtic.mil/whs/directives/corres/pdf/500059p.pdf)  [DOD Acquisition Modeling and Simulation Master Plan](http://www.acq.osd.mil/sse/docs/AMSMP_041706_FINAL2.pdf)  [AFPD 16-10](http://www.e-publishing.af.mil/shared/media/epubs/AFPD16-10.pdf)  Modeling and Simulation, Attachment 3 - Modeling and Simulation Thrusts  [AFI 16-1001](http://www.e-publishing.af.mil/shared/media/epubs/AFI16-1001.pdf)  Verification, Validation and Accreditation  [AFI 16-1002](http://www.e-publishing.af.mil/shared/media/epubs/AFI16-1002.pdf)  Modeling and Simulation (M&S) Support to Acquisition Entire document is a good reference concerning applicability, objectives, activities and roles and responsibilities.  [AFI 16-1003](http://www.e-publishing.af.mil/shared/media/epubs/AFI16-1003.pdf) Air Force Standard Analysis Tool Kit (AFSAT)  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx) | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Initial Technical Review (ITR)  Alternative System Review (ASR)  System Requirements Review (SRR)  System Functional Review (SFR)  Preliminary Design Review (PDR)  Critical Design Review (CDR)  Post –CDR Assessment  Test Readiness Review (TRR)  Operational Test Readiness Review (OTRR)  System Verification Review (SVR)  Production Readiness Review (PRR)  Full Rate Production/Deployment Review (FRPDR) | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [2.21](#P2_21) | Participate in the Computer Resources Working Group (CRWG) or the Computer Resources Integrated Product Team (CR-IPT) | | Analysis of Alternatives (AOA)  Initial Capabilities Document (ICD)  Capability Development Document (CDD) | |
| **DESCRIPTION:** | | | | |
| Computer Resources encompasses the facilities, hardware, software, documentation, manpower, and personnel needed to operate and support mission critical computer hardware/software systems. As the primary end item, support equipment, and training devices increase in complexity, more and more software is being used. The expense associated with the design and maintenance of software programs is so high that one cannot afford not to manage this process effectively. It is standard practice to establish some form of computer resource working group to accomplish the necessary planning and management of computer resources. It is essential that provisions be made for user involvement in the design of software to ensure usability and preclude costly changes. The application of good human computer interface (HCI) is important. The CRWG or CR-IPT is led by the Program Manager and should include: Logisticians, Software Engineers, Financial Management Personnel, Configuration Managers, Data Managers, Contracting Officer, System Engineer, human factors experts, Logistics Center Representative, Prime Contractor, and Operating Command representative. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Contact CRWG Chair for participation and membership. 2. Provide logistics input to the Computer Resources Life Cycle Management Plan (CRLCMP) and review for supportability considerations and impacts. 3. Provide input for changes to appropriate system documentation to include the Life Cycle Management Plan (LCMP). 4. Ensure human to hardware/software interfaces are addressed prior to software design and iteratively during development 5. Initiate actions to ensure supportability considerations are implemented as required. 6. Ensure facilities and MILCON funding including facility modifications requirements are addressed lead time away as applicable. Reference Checklist 2.11   Note: Review LogEA CONOPS for compliance with architecture – creation of System View document may be required | | [CRLCMP Format](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-EN-DB&DocID=630882) Extracted from rescinded AFR 800-14 (Best Practice)  [AFR 800-14](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3539179&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) (Rescinded, Best Practice)  [AFMC 800-21](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3539178&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) (Rescinded, Best Practice)  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) , Life Cycle Systems Engineering, Atch 8  [AFH 32-1084](http://www.e-publishing.af.mil/shared/media/epubs/AFH32-1084.pdf) Facility Requirements  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  **Sample Documents:**  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [CPLCMP Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880727&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Input into Draft Capability Development Document (CDD)  Input into Draft Capability Production Document (CPD)  Input into Acquisition Program Baseline (APB)  Input into Test and Evaluation Strategy  Input into System Engineering Plan (SEP)  Computer Resources Life Cycle Management Plan (CRLCMP)  Budget Inputs  Support elements developed, produced and delivered  Revise Course of Action as appropriate | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.22](#P2_22) | Review Capability Development Document (CDD) for supportability | Capabilities Based Analysis (CBA)  AoA Results  Supportability Objectives  Capabilities Review & Risk Assessment (CRRA)  JCIDS DOTMLPF analysis  Approved ICD | | |
| **DESCRIPTION:** | | | | |
| The CDD is the sponsor's primary means of defining authoritative, measurable, and testable capabilities needed by the warfighter to support the EMD phase of an acquisition program. CDD captures the information necessary to deliver an affordable and supportable capability using mature technology within one or more increments of an acquisition strategy. CDD must include a description of the DOTMLPF and policy impacts and constraints. The CDD will be validated and approved before Milestone B. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Participate in the initial development, review and update of the entire CDD for supportability and usability inputs since these inputs are incorporated throughout. Reference the AFMC/A4 CDD Review Checklist. 2. Review data used to support initial JCIDS analysis 3. Understand the operational and threat environment in which capability is exercised and manner in which the capability will be employed. (For Intelligence Reference Appendix A, Checklist 1.04) 4. Analyze operational capabilities and environmental constraints. (For Intelligence Reference Appendix A, Checklist 1.04) 5. Ensure hazardous materials, Environment, Safety & Occupational Health (ESOH) and Noise (ambient & occupational) constraints are addressed. 6. Review concept performance definition and verification objectives to include constraints 7. Need to ensure supportability analysis determines cost effective support over system life cycle 8. Ensure requirements include Technical Orders & other Technical Data, Support Equipment, Packaging, Handling, Storage & Transportation; Reliability, Availability, Maintainability &Cost (RAM-C); System Lifecycle Integrity Management (SLIM), Item Unique Identification (IUID), Producibility, interoperability & maintainability concepts for inclusion into specifications 9. Ensure Human Systems Integration implications, constraints & issues are addressed and included in the CDD. 10. Ensure DOTMLPF analysis includes logistics considerations.     1. Evaluate existing facilities/infrastructure and installation / capabilities for application. Ensure National Environmental Policy Act (NEPA) milestones and requirements are updated. See Checklist 2.10.2 for NEPA requirements     2. Ensure consideration of the proposed target audience (user). This includes the cognitive, physical and sensory abilities i.e., capabilities and limitations of the operators, maintainers, and support personnel that are expected to be in place at the time the system is fielded.   Note: Review LogEA CONOPS for compliance with architecture – creation of System/Technical View document may be required | | | [CJCSM 3170.01C](http://www.dtic.mil/cjcs_directives/cdata/unlimit/m317001.pdf) Operation of the Joint Capabilities Integration and Development System pages F-1 through F-8 and F-A-1 through F-A-8  [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities-Based Requirements Development  [AFI 10-604](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-604.pdf) Capabilities-Based Planning  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf) Air Installation Compatible Use Zones (AICUZ)  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Material Management  [DOD Environment, Safety & Occupational Health Network & Information Exchange (DENIX)](http://www.denix.osd.mil/cmrmd/ECMR/index.cfmhttp:/www.denix.osd.mil/cmrmd/ECMR/index.cfm)[AFMC/A4 CDD Review Checklist](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7819199&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) Page 17  **Sample Documents:**  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis  Technology Development |
| **EXIT CRITERIA:** | | | | |
| Acquisition Program Baseline (APB) for Milestone B of the Current Increment  Analysis of Alternatives Report  Technology Development Strategy (TDS)  Clinger-Cohen Certification (updated for Milestone B for Major Automated Information Systems) (MAIS)  Acquisition Strategy  Manpower Estimates  Supportability Objectives  Test & Evaluation Master Plan (TEMP)  System Engineering Plan  Update to CDD | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [2.23](#P2_23) | Develop Supportability Key Performance Parameters (KPP’s) | | Initial Capabilities Document (ICD)  Draft Capability Development Document (CDD)  Draft Capability Production Document (CPD)  Acquisition Program Baseline (APB)  Test and Evaluation Strategy  System Engineering Plan (SEP) | |
| **DESCRIPTION:** | | | | |
| Key Performance Parameters (KPPs): Those attributes or characteristics of a system that are considered critical or essential to the development of an effective military capability and those attributes that make a significant contribution to the key characteristics as defined in the Joint Operations Concepts (JOpsC) during an increment. KPPs are validated by the Joint Requirements Oversight Council (JROC) for JROC interest items, and by the DOD component for Joint Integration or Independent documents. Capability development and capability production documents are included verbatim in the APB. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Coordinate with requirements authority regarding supportability requirements 2. Ensure KPP’s address system supportability issues such as maintenance man-hours per flying hour and deployment footprint. (i.e. consideration of Support Equipment). Mandatory KPP/KSAs are required (see references). Include usability and other HSI relevant issues in these considerations. 3. Are support related performance and acceptance criteria developed to be demonstrated during planned testing? 4. Ensure Supportability KPP’s linked through the capabilities defined in the ICD to the key characteristics from the JOpsC. 5. Ensure Supportability KPP’s in the CDD and CPD are inserted verbatim into the APB   **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System (Para 6.c.2)  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [CJCSI 3170-01G](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3170_01.pdf) Joint Capabilities Integration and Development System (JCIDS) (enclosure A & B)  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities Based Requirements Development (Chapter 5, Para 5.5)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  Chapter 3  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [Systems Engineering Plan (SEP) Outline](http://www.acq.osd.mil/se/docs/PDUSD-Approved.SEP_Outline-04-20-2011.docx)  [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)  [AF/A5R Policy Memo 14 Dec 07](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3539177&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See checklists D-1, D-3, D-7, D-12, F-1  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) Pages 25-28 | | Technology Development |
| **EXIT CRITERIA:** | | | | |
| Input into Draft Capability Development Document (CDD)  Input into Draft Capability Production Document (CPD)  Input into Acquisition Program Baseline (APB)  Input into Test and Evaluation Strategy  Input into System Engineering Plan (SEP) | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.24.1](#P2_24_1) | Design Interface for Life Cycle Logistics | CRRA  Initial Capability Document  Capability Development Document  Capability Production Document  Systems Engineering Plan  Life Cycle Management Plan | | |
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| Design interface, is part of the supportability analysis and systems engineering process, relating logistics, design parameters to equipment readiness and support resources requirements. The objective of design interface using Performance Based Logistics (PBL) (DOD 5000.1 E1.17) is to minimize total ownership costs while delivering operational capability. An object of design interface is to perform trade-offs between reliability, maintainability features of the equipment against support system processes. Usability and accessibility of the various systems components should be considered. The PBL minimization forms the object of system engineering analysis with a minimization requirement and the subject to delivering operational capability. Note, that Design Interface is performed iteratively, meaning it is done in each phase of acquisition and recursively meaning that as design is matured it is performed on more detailed understanding of the design, technology and operational use. The Life Cycle Logistician must be a key member in the System Engineering Integrated Product Team (IPT) and the HSI IPT if established. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Strong Participation for Supportability, Sustainment and Product Support in the Program System Engineering Integrated Product Team (SE IPT). Advocate minimum TOC in the SE IPT.  2. Supportability Concepts: Develop with the user, supply chain manager and supporting depot detailed understanding of the maintenance and support concept including all operational limitations and issues. Develop system specification which addresses reliability, maintainability, support equipment, testability (interface with calibration and test equipment specs); deploy ability, mobility, and manpower and personnel estimates. Prepare the Functional Baseline.  3. Supportability Analysis: Interface with the reliability and maintainability program. Perform top down allocation of equipment reliability and maintainability performance requirements while modeling the impact of design decisions on the support processes required for maintaining and sustaining the equipment in its operational use. Maintain records of decisions and analyses supporting justification for design decisions and participate in developing the allocated baseline as well as design test and evaluation for reliability and maintainability performance. Participate in reliability and maintainability test and evaluation and prepare to demonstrate system level logistics capabilities to support the verification processes within system engineering IPT. Develop item development specifications which address reliability, maintainability, support equipment, testability (interface with calibration and test equipment specs); deploy ability, mobility, and manpower estimates. Monitor reliability and maintainability demonstration process as well as reliability improvement activities. Prepare the Allocated Baseline. Coordinate with the program manager’s modeling and simulation process for allocating reliability and maintainability and minimizing total ownership costs. See SLIM Checklist: 2.37.12  4. Interact with specialty engineering that impact product support:   * Reliability * Maintainability, accessibility * Testability, * Deployability/Transportability/Packaging * Human Machine Interfaces and usability * Interoperability * Calibration and Metrology * Support Equipment * Standardization * Energy and POL * DMSMS * Environment, Safety & Occupational Health (ESOH) * Systems Safety * Noise including Air Installation Compatibility Use Zone * Facilities/infrastructure * Reference SLIM Checklist 2.37.12   5. Ensure Human Systems Integration implications, constraints, and issues are addressed and included in an integrated manner to include the maintainer and support personnel in the overall system design.  Supportability Resources: Once the equipment’s inherent reliability and maintainability is determined the support resources developed in the trade studies need to be refined, identified, specified and acquired. The results of identifying supportability resources include support equipment recommendation data, provisioning data, etc acquired in the next process.  Supportability Data: Coordinate on engineering data, item development specifications, and maintenance task descriptions, lists of maintenance task assets, facilities requirements, manpower needs and related supportability data requirements. Participate in functional configuration audits and assure that physical configuration audit supports the documentation of supportability requirements.  Note: Review LogEA CONOPS for compliance with architecture – creation of System/Technical View document may be required | | | [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=328735) Chapter 5.2  [MIL-HDBK-502](https://acc.dau.mil/CommunityBrowser.aspx?id=32543) DOD Handbook Acquisition Logistics  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [DOD 4140.1-R](http://www.dtic.mil/whs/directives/corres/rtf/p41401r.doc) DOD Supply Chain Materiel Management Regulation  [GEIA-STD-0007 A](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=7496807&Function=ViewDocument&FolderID=OO-LG-MC-39-27-7-1&Filter=OO-LG-MC-39) Logistics Product Data  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf) Air Installation Compatible Use Zones (AICUZ)  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Material Management  [DOD Environment, Safety & Occupational Health Network & Information Exchange (DENIX)](http://www.denix.osd.mil/cmrmd/ECMR/index.cfmhttp:/www.denix.osd.mil/cmrmd/ECMR/index.cfm)[LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 6-16  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Systems Engineering Plan  Life Cycle Management Plan  System Specification  Allocated Baselines  Functional Configuration Audit  Inputs to TEMP updates | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.25](#P2_25) | Include Supportability Requirements in the CARD, POE, CCA, ICE, Affordability Assessments | Program Established  Program Management Directive (PMD)  Acquisition Decision Memorandum (ADM) | |
| **DESCRIPTION:** | | | |
| The acronyms above stand for Cost Analysis Requirements Document (CARD), Program Office Estimate (POE), Component Cost Analysis (CCA), and Independent Cost Estimate (ICE). Affordability assessments are done at Air Force level only. Cost estimates cover the entire life cycle of a system and need to adequately address all of the Product Support elements, including disposal, to ensure the total life cycle cost is understood and used for management decisions. The logistician needs to make sure that all of the costs for acquiring; fielding, sustaining, and disposal are included. Major categories of cost are support equipment, technical data, supply support, training & training equipment, depot activation costs (if organic capability to be established), any Interim Contractor Support or Contractor Logistics Support costs to include field service representatives/maintenance activities/inventory management, sustaining engineering costs, depot maintenance, manpower & personnel, Intelligence infrastructure, and organizational/intermediate level maintenance. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Engage as a team member on the Cost Estimating Team (for CARD, POE, CCA, ICE, (FM is normally OPR for this task), and engage as a member on the program Integrated Risk Assessment (IRA) Team. 2. Ensure all 12 Product Support elements are addressed including Depot Maintenance, O&I Maintenance, testing costs, disposal costs, transportation costs (including Second Destination Transportation), Diminishing Manufacturing Sources and Material Shortages, Facilities/infrastructure, planned modifications / upgrades, Human Systems Integration (HSI), Intelligence, and integration costs if applicable. Specifically address Energy Efficiency and Alternate Fuels considerations. Include any costs for demilitarization, declassification and disposal. 3. Coordinate technical data such as RAM with Engineering. 4. Ensure consistent use of data for other applicable program tasks such as engineering change proposals/contractor change proposals, trade studies, SDT budgeting, and new work packages. Ensure trade studies address: manpower, personnel, training, survivability, habitability, Environment, Safety, Occupational Health, and human factors engineering. Do not let the human aspects get overshadowed by technology needs. Be explicit regarding the consequences – monetary and life cycle – of planned trade-offs so that good decisions can be made. Work with the user on all trade-off decisions. 5. Participate in yearly (or as required) updates of the CARD, POE, CCA, ICE, and IRA activities to reflect any changes in the system data that would reflect in costs changes. 6. During Engineering & Manufacturing Development and Production & Deployment Phases, participate in the annual Centralized Asset Management (CAM) / Centralized Access for Data Exchange (CAFDEx) requirements build if within 2-3 years of system sustainment utilizing 3400 funding. See Task 5.25   **Sample Documents:**  [PMD Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3979954&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [CARD Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880725&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx) (See Chapters 2,4, and 6  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System (See Enclosure 7)  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AFMC Guide to the Defense Depot Maintenance Council Cost Comparability Handbook](http://www.jdmag.wpafb.af.mil/cchb.pdf)  [AFPD 23-5](http://www.e-publishing.af.mil/shared/media/epubs/AFPD23-5.pdf) Reusing and Disposing of Materiel Paragraph 1  [DODI 4160.28](http://www.dtic.mil/whs/directives/corres/pdf/416028p.pdf) DOD Demilitarization (DEMIL) Program  [DOD 4160-28-M Vol. 1](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol1.pdf) Defense Demilitarization: Program Admin  [DOD 4160-28-M Vol 2](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol2.pdf) Defense Demilitarization: DEMIL Coding  [DOD 4160-28-M Vol 3](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol3.pdf) Defense Demilitarization: Procedural Guidance  [DOD DEMIL Web Page](https://demil.osd.mil/)  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [DOD 4140.1-R](http://www.dtic.mil/whs/directives/corres/rtf/p41401r.doc) DOD Supply Chain Materiel Management Regulation  [Centralized Asset Management CoP](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-FM-BD-11)  [Centralized Access For Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/)  [CAFDEx Access Instructions](https://afkm.wpafb.af.mil/ASPs/docman/DOCMain.asp?Tab=0&FolderID=OO-FM-BD-11-37-3&Filter=OO-FM-BD-11)  [Logistics Requirements Determination Process](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11)  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) page 19 para 3 and table 3 page 28 | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | |
| Approved IRA, POE, ICE, CCA, other cost estimates that includes product support as described in AFI 63-101  Source data documentation for appropriate estimate product support elements | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.27](#P2_27) | Include Supportability in the Acquisition Program Baseline (APB) | Initial Capabilities Plan (ICD)  Draft Capability Development Document (CDD)  Support & Maintenance concept & Technologies  In EMD Phase: Capability Production Document  Life Cycle Mgmt Plan (LCMP) | | |
| **DESCRIPTION:** | | | | |
| The Acquisition Program Baseline (APB) defines the cost, schedule, benefits, and performance baselines for the acquisition program, should begin during the time the design requirement of the customer are created. It is the mutual agreement between the provider organization, and the user organization concerning the capability and benefits the program will provide and the cost and schedule authorized for the program. The APB also establishes performance metrics for assessing program success and advancing it through the acquisition lifecycle. For Baseline Development and Fielding & Operations activities, SDIPTs will develop APBs that specify the end state goals for cost, schedule and performance goals for the overall program and for each increment. APBs shall document the results of the planning process. All APBs for the next increment to be executed will be approved by the Milestone Decision Authority (MDA). Planning APBs for out year increments will be submitted to the MDA but do not require approval. All incremental APBs should be submitted with the SDIP for each increment. The overall program APB will a) document which increment(s) will satisfy which KPPs, b) specify the minimum performance parameters, including KPPs that define the core capability and c) target which increment will provide the core capability. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Review Sustainment KPP/KSAs 2. Provide input to the Program Management / Expectation Management Agreement (PMA/EMA) 3. Coordinate with applicable MAJCOM office for requirements (e.g. DR) 4. Calculate Logistics Support portions of Total Ownership Cost (TOC) of the program. (i.e. all costs associated with the research, development, procurement, operation, logistical support, and disposal of an individual weapon system or piece of equipment over its total life cycle; and associated common support items). 5. Ensure the contractor, as a contract deliverable, demonstrates by testing that they have achieved certain supportability/sustainability targets.   Note: Review LogEA CONOPS for compliance with architecture | | | [Defense Acquisition Guidebook 2.1.1.1](https://acc.dau.mil/CommunityBrowser.aspx?id=314719#2.1.1)  [AFPAM 63-128](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-AQ-DB&DocID=183691) Guide to Acquisition & Sustainment Life Cycle Management Sec 2.11  [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklists D-2, D-3, D-4, D-6, D-9, D-12, E-1, F-1  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development  Engineering & Manufacturing Development  Production & Deployment |
| **EXIT CRITERIA:** | | | | |
| Updated Initial Capability Document (ICD)  Updated CDD  Updated Life Cycle Mgmt Plan (LCMP)  Updated Draft Capability Development Document (CDD)  Updates to APB | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.28](#P2_28) | Include Supportability Requirements in the Program Objectives Memorandum (POM) submission | Acquisition Strategy  Strategic Planning Guidance  Joint Programming Guidance  Analysis of Alternatives (AoA) Plan  Supportability Concept & Requirements  Source of Repair Assignments  Depot Maintenance Plan  Product Support Plan | | |
| **DESCRIPTION:** | | | | |
| The POM is a major document in the Planning, Programming, Budgeting and Execution (PPBE) process, and the basis for the component budget estimates. The POM is the principal programming document that details how a component proposes to respond to assignments I the Strategic Planning Guidance (SPG) and Joint Programming Guidance (JPG) and satisfy its assigned functions over the Future Years Defense Program (FYDP). | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Logistician should coordinate with the Program Manager (PM) and Financial Manager (FM) for POM inputs 2. Analyze Acquisition Strategy 3. Interpret Program Supportability needs 4. Develop budget estimates in coordination with PM and FM 5. Resources to conduct HSI activities and ensure user participation shall be identified and allocated as part of the program cost. Specifically include TDY costs for expertise needed outside the program office. 6. For Materiel Solution Analysis & Technology Development phases Identify anticipated sustainment requirements to the Centralized Asset Management (CAM) office (AFMC/A4F Workflow). For AFSPC, ANG and AFRC sustainment requirements also contact the respective organization. 7. For Engineering & Manufacturing Development, Production & Deployment, and Operations & Support phases participate in the annual Centralized Asset Management (CAM) / Centralized Access for Data Exchange (CAFDEx) requirements build if within 2-3 years of system sustainment utilizing 3400 funding. See Task 5.25   (NOTE: Items to consider for logistics POM input: Support Equipment (peculiar and common), Packaging, Handling, Storage & Transportation and Asset Marking to include Item Unique Identification (IUID), Specialized engineered containers (design and testing cost), Technical Data, Initial and Replenishment Spares, Diminishing Manufacturing Sources and Material Shortages, Training systems and Training Equipment, Energy Efficiency, Alternate Fuels considerations, Sustaining Engineering, Support for testing programs, CLS/ICS, Second Destination Transportation, Computer Resources and facilities etc). Include any costs for demilitarization, declassification and disposal. Funding for facilities is through MILCON, done separately from the POM process (Ref checklist 2.11) | | | [PPBE Process](http://akss.dau.mil/dag/DoD5000.asp?view=document&rf=GuideBook\IG_c1.2.asp) Paragraph 1.2  [Designing and Assessing Supportability in DOD Weapon Systems (A Guide to Increased Reliability and Reduced Logistics Footprint)](https://acc.dau.mil/GetAttachment.aspx?id=32566&pname=file&aid=6167)  Entire document provides an overview on lifecycle costs. In particular, chapter 3.  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities Based Requirements Development This document should be used to support capabilities based support requirements.  [MIL-HDBK-502](https://acc.dau.mil/CommunityBrowser.aspx?id=32543) DOD Handbook Acquisition Logistics General information document on Acquisition Logistics  [Centralized Asset Management CoP](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-FM-BD-11)  [Centralized Access For Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/)  [CAFDEx Access Instructions](https://afkm.wpafb.af.mil/ASPs/docman/DOCMain.asp?Tab=0&FolderID=OO-FM-BD-11-37-3&Filter=OO-FM-BD-11)  [Logistics Requirements Determination Process](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11)  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) para 3 page 19  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  **Sample Documents:**  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Budget Estimates | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.29](#P2_29) | Refine Product Support Strategy in LCMP | Draft Capabilities Development Document (CDD)  Preferred System Concept  Acquisition Decision Memorandum (ADM)  Support & Maintenance Concepts & Technologies  Analysis of Alternatives (AoA)  Market Analysis  System Engineering Plan (SEP)  Technology Development Strategy (TDS)  Cost/Manpower Estimates | | |
| **DESCRIPTION:** | | | | |
| A Life Cycle Management Plan (LCMP) is a comprehensive document that consolidates the weapon system life cycle acquisition management and product support strategies from materiel solution analysis through reclamation/disposal. It is a document that must be maintained to remain compliant with revised/new DOD policy and statutory requirements. It represents a corporate AF position on how to best execute and manage a specific program and requires participation from all program stakeholders in its development and update. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensures points from checklist 1.15 are updated 2. Ensure guidance in AFPAM 63-128 for LCMP format is followed. 3. Review the CDD for: 4. System Maintenance/Support Profiles and Use Case Scenarios (Support Capability Packages) 5. Reliability and Maintenance Rates 6. Support Environment and Locations for Support 7. Support and Maintenance Effectiveness 8. Logistics/supportability input to Key Performance Parameters (KPPs) 9. Planning for Peculiar and Common Support Equipment (SE) 10. Planning for Technical Data 11. Planning for Training 12. Sections 14 Other DOTMLPF and Policy considerations & 15 Other System Attributes 13. Continue to influence product design with Life Cycle Logistics (LCL) for Affordable System Operational Effectiveness (SOE) showing dependency and interplay between system performance, availability, process efficiency, and system life cycle cost 14. Review preliminary manpower, personnel and training requirements and constraints in both quantity and skill levels 15. Ensure consideration of the proposed target audience (user). This includes the cognitive, physical and sensory abilities i.e., capabilities and limitations of the operators, maintainers, and support personnel that are expected to be in place at the time the system is fielded. 16. Review information and requirements for logistics footprint reductions, (include SE) deployment requirements, other factors affecting the in-theater operational concept 17. Review the operating and support reliability objectives and their corresponding benefits and resource requirements 18. Review the assessment of the concept and technology regarding use of embedded diagnostics, prognostics, and similar maintenance enablers 19. Review data on the projected sustainment demand, standardization of platforms, & required support equipment 20. Identify anticipated direct AF sustainment requirements to the Centralized Asset Management (CAM) office (AFMC/A4F Workflow). For AFSPC, ANG and AFRC sustainment requirements contact the respective organization. If program is within 2-3 years of needing 3400 sustainment funding, ensure planning for budget input is accomplished. See Task 5.25 21. Review updated Analysis of Alternatives (AoA) for product support strategy, including alternative operating and system support concepts 22. Ensure the HSI process is used to support generation of a robust plan that considers all human-related domains in an integrated manner. It must be addressed throughout the life cycle, and must be consistently integrated into SE implementation to balance total system performance (hardware, software, and human), and affordability. 23. Include the design and development of the support system utilizing Performance Based Logistics (PBL). Include discussion of PBL methodology for implementation and strategy. Review "PBL: A PM's Product Support Guide" for checklists on key product support issues 24. Review the Rough Order of Magnitude (ROM) Life Cycle Cost Estimates (LCCE) for product support elements 25. Review initial identification of support-related risk and risk mitigation planning for product support 26. Review requirements for providing sustainment during technology-oriented demonstrations 27. Review the product support strategy found in the Acquisition Strategy for: 28. Life cycle sustainment and continuous improvement of product affordability, reliability, and supportability, while sustaining readiness 29. Supportability planning, analyses, and trade-offs used to determine the optimum support concept and identify the strategies for continuous affordability improvements 30. Interoperability (including MOSA strategy for supply, interoperability, maintainability, and follow-on logistics planning for sustainment) 31. Review the Technology Readiness Assessment found in the Acquisition Strategy for product support elements 32. Review the Total System Product Support Package for product support concepts that are based on reliability and maintainability of the system 33. Review the Market Analysis for product support capabilities for achieving support objectives through design and elements of support currently provided by legacy systems and the measures to evaluate support effectiveness 34. Review the Test and Evaluation Master Plan for supportability and appropriate logistics considerations 35. Refer AFPAM 63-128 for the appropriate PS elements 36. Review the Work Breakdown Structure for deliverable work products and of life cycle logistics considerations 37. Review contracts that perform workloads previously performed by depot-level activities of the DOD, review the Competition Analysis for Depot-Level Maintenance >$3M (refer to 10 U.S.C. 2469) 38. HQ AFMC certified the source of repair/core determination and 50/50, include approach to developing organic depot repair capability for workloads identified as core (refer to U.S.C. 2466) 39. Ensure National Environmental Policy Act (NEPA), facilities SRM and MILCON funding requirements are addressed lead time away as applicable. 40. Review Cost as an Independent Variable for cost estimate. Include any funding shortfalls and discuss current and planned cost reduction initiatives 41. Review the Acquisition Decision Memorandum for product support exit criteria 42. Review the Air Force strategic energy and infrastructure plan   Note: Review LogEA CONOPS for compliance with architecture | | | [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management Sec 2.11  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [Integrated Defense Acquisition Technology and Logistics Life Cycle Mgmt Framework ("Wall Chart")](http://akss.dau.mil/ifc/)  [10 USC 2469](http://www.gpoaccess.gov/uscode/index.html)  [10 USC 2466](http://www.gpoaccess.gov/uscode/index.html)  [Acquisition Program Baseline (APB) (bottom)](https://acc.dau.mil/CommunityBrowser.aspx?id=328728#5.1.2.1) (5.1.2.1)  [Affordable System Operational Effectiveness (DAG)](https://acc.dau.mil/CommunityBrowser.aspx?id=328734)  [Configuration Mgmt](https://acc.dau.mil/CommunityBrowser.aspx?id=332970) (DAG 4.2.3.1.6)  [Configuration Mgmt 2](https://acc.dau.mil/CommunityBrowser.aspx?id=328733) (DAG 5.1.7)  [Core Logistics Capability](https://acc.dau.mil/CommunityBrowser.aspx?id=328735) (DAG - 5.2.1.3)  [Core Logistics Capabilities (10 U.S.C. 2464)](http://frwebgate3.access.gpo.gov/cgi-bin/TEXTgate.cgi?WAISdocID=tlsIWU/0/1/0&WAISaction=retrieve)  [Cost as an Independent Variable (CAIV)](https://acc.dau.mil/CommunityBrowser.aspx?id=314768#3.2.4) (DAG - 3.2.4)  [Data Management](https://acc.dau.mil/CommunityBrowser.aspx?id=314756) (DAG - 2.3.14)  [Data Management in Engineering (DAG - 4.2.3.1.7)](https://acc.dau.mil/CommunityBrowser.aspx?id=332971)  [Demilitarization and Disposal](https://acc.dau.mil/CommunityBrowser.aspx?id=333010) (DAG – 4.4.5)  [Environment, Safety, and Occupational Health (ESOH)](https://acc.dau.mil/CommunityBrowser.aspx?id=314761)  (DAG - 2.3.19)  [ESOH](https://acc.dau.mil/CommunityBrowser.aspx?id=333012) (DAG - 4.4.7)  [Human Systems Integration (HSI)](https://acc.dau.mil/CommunityBrowser.aspx?id=314774) (DAG - 6)  [Human Systems Integration (HSI)](https://acc.dau.mil/CommunityBrowser.aspx?id=314760) (DAG - 2.3.18)  [Industrial Capability (2.3.9)](https://acc.dau.mil/CommunityBrowser.aspx?id=314747)  [Supply Chain Management](https://acc.dau.mil/CommunityBrowser.aspx?id=328728) (DAG - 5.1.2)  [Interoperability](https://acc.dau.mil/CommunityBrowser.aspx?id=333015) (DAG - 4.4.10)  [Life Cycle Assessment](https://acc.dau.mil/CommunityBrowser.aspx?id=323139) (DAG – 10.5)  [Life Cycle Costs](https://acc.dau.mil/CommunityBrowser.aspx?id=314767) (DAG - 3.1)  [Logistics Footprint Minimization](https://acc.dau.mil/CommunityBrowser.aspx?id=328739) (DAG - 5.3)  [Market Analysis](https://acc.dau.mil/CommunityBrowser.aspx?id=328745) (DAG - 5.4.1)  [MOSA & Interoperability](https://acc.dau.mil/CommunityBrowser.aspx?id=328740) (DAG - 5.3.1)  [PBL: A PM's Product Support Guide](https://acc.dau.mil/CommunityBrowser.aspx?id=32536) (All)  [PBL](https://acc.dau.mil/CommunityBrowser.aspx?id=328727#5.1.1.3) (DAG - 5.1.1.3)  [Product Support](https://acc.dau.mil/CommunityBrowser.aspx?id=328727#5.1.1.1) (DAG - 5.1.1.1)  [Product Support Plan for Information Technology Guide](http://public.gunter.af.mil/applications/sep/documents/SWGD032.doc) (SWGDO32)  [10 USC 2440](http://www.gpoaccess.gov/uscode/index.html)  [Technology Readiness Assessment Deskbook (TRA)](http://www.dod.mil/ddre/doc/DoD_TRA_July_2009_Read_Version.pdf) (2.3)  [Test and Evaluation Master Plan (TEMP)](https://acc.dau.mil/CommunityBrowser.aspx?id=328746) (DAG - 5.4.2)  [Product Support Package](https://acc.dau.mil/CommunityBrowser.aspx?id=328727) (DAG – 5.1.1)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklists D-2, D-3, D-4, D-6, D-9, D-10, E-1  [Air Force Strategic Energy and Infrastructure Plan](http://www.afcesa.af.mil/shared/media/document/AFD-081029-038.pdf)  [Centralized Asset Management CoP](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-FM-BD-11)  [Logistics Requirements Determination Process](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11)  [42 USC 4321](http://frwebgate3.access.gpo.gov/cgi-bin/TEXTgate.cgi?WAISdocID=GVTw5e/0/1/0&WAISaction=retrieve)  [40 CFR 1500](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=801c8988a5cb85fd75f3c1d7452dcaf1&rgn=div5&view=text&node=40:33.0.3.3.1&idno=40)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 17-20  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  [Next Generation CLS Contract Sustainment Support Guide (CSSG)](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=11621638&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  **Sample Documents:**  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [ISP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880738&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [Program Protection Plan (PPP) Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880817&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TRA Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880836&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [MER Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880804&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [Manpower Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880744&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development |
| **EXIT CRITERIA:** | | | | |
| Updated Life Cycle Management Plan  Updated Capabilities Development Document (CDD)  Updated System Performance Specification  Updated Test and Evaluation Master Plan (TEMP)  Validated System Support & Maintenance Objectives & Requirements  Updated Systems Engineering Plan (SEP)  Updated Information Support Plan (ISP)  Updated Program Protection Plan (PPP)  Updated Public Private Partnership (PPP)  Technology Readiness Assessment (TRA)  Inputs to Integrated Baseline Review (IBR)  Inputs to Acquisition Strategy, Acquisition Program Baseline (APB)  Inputs to Affordability Assessment  Inputs to Cost/Manpower Estimate, Independent Cost Estimate and Manpower Estimate  Inputs to Analysis of Alternatives (AoA)  Inputs to Technology Development Strategy (TDS)  Inputs to Industrial Capabilities, Cooperative Opportunities  Core Logistics Analysis/ Source of Repair Analysis, & Competition Analysis for Depot-Level Maintenance >$3M | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.35](#P2_35) | Participate in SRR (Demonstrate Concepts) | Acquisition Decision Memorandum (ADM)  Initial Capabilities Document (ICD)  Draft Capability Development Document (CDD)  Analysis of Alternatives (AoA)  Test and Evaluation Strategy  System Engineering Plan (SEP)  Support & Maintenance concept & Technologies  Technology Development Strategy (TDS)  Life Cycle Management Plan (LCMP) | | |
| **DESCRIPTION:** | | | | |
| A formal, system-level review conducted to ensure that system requirements have been completely and properly identified and that a mutual understanding between the government and contractor exists. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Coordinate with lead engineer regarding supportability requirements 2. Review applicable documentation against product support strategy such as system maintenance concept, significant system design criteria (reliability, maintainability, logistics requirements, System Lifecycle Integrity Management (SLIM) requirements, layout drawings, conceptual design drawings, selected supplier components data, support equipment, etc.)    * Define baseline operational scenarios for system alternatives    * Participate in market research for supportability attributes of potential commercial products    * Identify and estimate achievable values of logistics and R&M parameters    * Establish system readiness objectives and tentative thresholds 3. Ensure Intelligence requirements and deficiencies are addressed 4. Ensure that the operational and system views are inclusive of the people that will operate, maintain and sustain the system 5. Ensure Human Systems Integration implications, constraints and issues are adequately addressed in the requirements and supportive of attaining the proper interfaces to support the operational concepts 6. Ensure product support requirements satisfy the ICD or draft CDD 7. Identify support cost drivers and targets for improvement 8. Ensure alternatives to reduce hazardous materials are considered   Note: Ensure compliance with LogEA as part of review | | | [Systems Engineering Fundamentals](https://afkm.wpafb.af.mil/ASPs/DocMan/DocDisplayOnly.asp?Filter=OO-EN-DB&DocID=28782) (Chapters 2, 4, 14, 15, 17, 17A, 18 & 19)  [System Requirements Review Procedures](http://public.gunter.af.mil/applications/sep/documents/RDPR011.DOC)  [MIL-HDBK-502](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=201462) DOD Acquisition Logistics (All)  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-9, D-11, E-1  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Material Management  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 28  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) page 43 para 5.2.3  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  **Sample Documents:**  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis  Technology Development |
| **EXIT CRITERIA:** | | | | |
| Updated Initial Capabilities Document (ICD)  Updated Draft Capability Development Document (CDD)  Updated Analysis of Alternatives (AoA)  Updated Test and Evaluation Strategy  Updated System Engineering Plan (SEP)  Updated Product Support Strategy  Updated Technology Development Strategy (TDS)  Updated Life Cycle Management Plan (LCMP)  SRR Minutes | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.37](#P2_37) | Package, Handling, Storage & Transportation (PHS&T) | Draft Maintenance Concept  Cost Analysis Requirements Description (CARD)  Initial Capability Document (ICD)  Capability Development Document (CDD)  Capability Production Document (PCD)  Life Cycle Management Plan (LCMP) | |
| **DESCRIPTION:** | | | |
| PHS&T includes the resources and procedures to ensure that all equipment and support items are preserved, packaged, packed, marked, handled, transported, and stored properly for short- and long-term requirements. It includes material-handling equipment and packaging, handling and storage requirements, and pre-positioning of material and parts. It also includes environmental considerations, equipment preservation, packaging level requirements and storage requirements (for example, sensitive, proprietary, and controlled items). This element includes planning and programming the details associated with movement of the system in its shipping configuration to the ultimate destination via transportation modes and networks available and authorized for use. It further encompasses establishment of critical engineering design parameters and constraints (e.g., width, length, height, component and system rating, and weight) that must be considered during system development. Customs requirements, air shipping requirements, rail shipping requirements, container considerations, special movement precautions, mobility, security classification, In-transit Visibility and transportation asset impact of the shipping mode or the contract shipper must also be carefully assessed. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Interpret User Needs and implications for TOs, SE PHS&T, Reliability, Availability, Maintainability & Cost (RAM-C), System Lifecycle Integrity Management (SLIM), Producibility, Interoperability, Supply Support and Maintenance Concept that may be included in specifications. 2. Participate in IPT’s that address PHS&T considerations, such as:  * System constraints (such as design specifications, item configuration, and safety precautions for hazardous material). * Special security requirements. * Geographic and environmental restrictions. * Special handling equipment and procedures. * Impact on spare or repair parts storage requirements. * Emerging PHS&T technologies, methods, or procedures and resource-intensive PHS&T procedures. * ESOH impacts and constraints.  1. Ensure packaging requirements are met or addressed. (AFMCI 24-201). 2. Ensure the DOD’s computerized Container Design Retrieval System database has been searched to preclude the design of new specialized containers when suitable containers already exist. 3. Ensure military packaging, MIL-STD-2073, has been considered for:    * Items that analysis has shown cannot be protected and preserved in a cost-effective manner using commercial packaging.    * Items where analysis has shown that military packaging is the optimal packaging solution.    * Items delivered during wartime for deployment with operational units.    * Items requiring reusable containers. 4. Ensure packaging intended for international use has been approved by the department of transportation. 5. Ensure storage requirements are incorporated into technical publications. 6. Ensure transportation issues are addressed, to include:    * Oversized/overweight items.    * Items requiring special transportation modes    * Items that are classified 7. Ensure shelf-life requirements have been identified 8. Ensure time delivery requirements from the contractors have been identified. 9. Evaluate the need for carriers to provide near real-time shipment tracking and to provide customer access to their tracking system. 10. Ensure validation testing has been conducted on special packaging 11. Ensure hazardous material packaging has been tested in accordance with the applicable requirements listed in the *International Air Transport Association Dangerous Goods Regulations and the Code of Federal Regulations (CFR) Title 29, 40 and 49*. 12. Coordinate with DLA Distribution Depot Center (DDC) for PHS&T and Asset Marking to include Item Unique Identification (IUID) Requirements (Reference Task 1.15) 13. Ensure commercial packaging conforms to commercial standard ASTM D3951.   **Sample Documents:**  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [CARD Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880725&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | [CJCSI 3170.01G](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3170_01.pdf) Joint Capabilities Integration and Development System  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities-Based Requirements Development This document support JCIDS process  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx) (See Chapters 3, 4, and 5  [AFMCI 24-201](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI24-201.pdf) AFMC Package and Material Handling Policies and Procedures (Whole Document)  [Packaging CoP](https://rso.my.af.mil/afknprod/ASPs/CoP/OpenCoP.asp?Filter=OO-LG-PM-PK)  [AF Shipping Container Management CoP](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=MC-LG-00-51)  [Designing and Assessing Supportability in DOD Weapon Systems (A Guide to Increased Reliability and Reduced Logistics Footprint)](https://acc.dau.mil/GetAttachment.aspx?id=32566&pname=file&aid=6167)  See Chapter 3, but scan entire document for further information  [MIL-STD-2073-E1](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=37232) Military Packaging  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-12  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management Sec 2.11  [MIL-HDBK-1791](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=203789)  [Transportability CoP](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-LG-PM-TN)  [Transportation CoP](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-LG-TR-A7)  [DOD 4500.9-R Defense Transportation Regulation (DTR)](http://www.transcom.mil/j5/pt/dtr_part_ii.cfm)  [Dangerous Goods Regulation](http://wdcm.nig.ac.jp/wfcc/new/Documents/IATA_2005_Addendum.pdf) Whole Document  [Code of Federal Regulations](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl) Titles 29, 40, 49  DDC –  <http://www.ddc.dla.mil/>  [DOD 4140.1-R](http://www.dtic.mil/whs/directives/corres/rtf/p41401r.doc) DOD Supply Chain Materiel Management Regulation  [Air Force Packaging Technology and Engineering Facility](http://packweb.wpafb.af.mil/)  [Container Design Retrieval System (CDRS)](https://acc.dau.mil/CommunityBrowser.aspx?id=32414)  [Special Packaging Instructions Retrieval & Exchange System (SPIRES)](https://spires.wpafb.af.mil/sindex.cfm)  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [ASTM D3951](http://www.astm.org/Standards/D3951.htm) | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | |
| Inputs into Analysis of Alternatives (AoAs)  Inputs to PHS&T requirements  Input into Systems Engineering Plan (SEP)  Input into Initial Capabilities Document (ICD)  Inputs to Capabilities Development Document (CDD)  Inputs into Production Capability Document (PCD)  Input/Updates to Life Cycle Management Plan (LCMP) | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.37.1](#P2_37_1) | Develop and Acquire Supportability Data | Capabilities Development Document  Supportability Objectives  Configuration Management Plan  Strategic Source of Repair Decision  Maintenance Concept  Milestone B  Technical Data Rights Strategy (in LCMP) | |
| **DESCRIPTION:** | | | |
| Supportability data is the foundation for identifying and managing support resources including: supplies, support equipment, technical manuals, training resources and configuration management. Supportability data is acquired as part of the technical data of the weapon system acquisition and contributes to the sustainment processes: data management and configuration management as well as forming the basis for maintenance and supply. Supportability data links the allocated baseline of the weapon system to the physical baseline and integrates technical and engineering data with maintenance and supply data and forms the basis for managing the sustainment of the weapon system. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Consider configuration management approach 2. Integrate Supportability Data into the Technical Data Rights Strategy. 3. Understand the maintenance concept, operating scenarios, mobility/transportability requirements and other life cycle support requirements contained in the CDD and PMA/EMA 4. Initiate budget for technical data, spares, support equipment, training and system engineering for life cycle logistics and supportability WBS Items 5. Determine Supportability Source Data format requirements. 6. Place GEIA-STD-0007 A on contract 7. MIL-HDBK-502 has guidance on LMI Summaries 8. Place Drawing 9579776 on contract 9. Supportability Analysis Summaries (SAS) 10. Tailor DI‑ALSS‑81529 Logistics Management Information (LMI) Data Product(s) to deliver supportability data  * Order LMI Data products reporting for filing in the PLM for requirements analysis tasks allocating functional baseline requirements for reliability, maintainability, supportability, availability, testability, and support equipment * Order functional analysis LMI data products for results of Maintenance Task Analysis, including results of Failure Modes Effect and Criticality Analysis (FMECA), Reliability Centered Maintenance (RCM), Repair Level Analysis (RLA), and related studies for use in Depot Source of Repair selection and identification of supportability resources and supportability data.  1. Tailor DI‑ALSS‑81530 Logistics Management Information (LMI) Summaries to include Support Equipment Recommendation Data (SERD) 2. Link TMCR 86-01 to LMI data products as well as the PLM approach (Reference Checklist 3.19.1) 3. Link Provision Technical Documents to LMI data products (Tailor DI-ALSS-81529) 4. Tailor DI-ALSS-81529 to deliver Support Equipment recommendations 5. Acquire training plans 6. Develop maintenance plans using tailored DI-ALSS-81529 7. Establish integrated digital environment and use interactive workflow to review and manage supportability data 8. Plan transition of supportability data to the supporting ALC 9. Ensure data on hazardous materials both in the weapon system, required for repair, and operations are requested. 10. Refer to checklist 2.50.   Note: Review LogEA CONOPS for compliance with architecture – creation of System/Technical View document may be required | | [Defense Acquisition Guide](https://acc.dau.mil/CommunityBrowser.aspx?id=333024#4.4.19.3), (DAG 4.4.19.3)  [GEIA-STD-0007A](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=7496807&Function=ViewDocument&FolderID=OO-LG-MC-39-27-7-1&Filter=OO-LG-MC-39) Logistics Product Data  [Product Data Specification Drawing 9579776](https://www.my.af.mil/USAF/AFP40/d/s2D8EB9D629AAD6C8012A3858765B1825/Files/9579776K.pdf)  [MIL-STD-31000](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=276980) Detail Specification Technical Data Packages  [MIL-HDBK-502](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=201462) DOD Handbook Acquisition Logistics  [MIL-STD-961E(1)](http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=36063) Defense and Program-Unique Specifications Format and Content  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6.A  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Acquisition Streamlining and Standardization Information System Tool (ASSIST) Quick Search](http://assist.daps.dla.mil/quicksearch/)  Enter “DI” in the [Document ID] block and click [Submit] button, to generate a list of over 1100 DIDs  HAZMAT Plan & Report DIDs:  DI-MISC-81397A, Hazardous Material Management Program Report  DI-MGMT-81399A, Hazardous Material Management Program Plan  [MIL-STD-882D](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=36027), Standard Practice for System Safety See paragraph 6.2, for a list of DIDs that may be applicable to a system safety effort  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [HSI Guide for Contracts](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) Page 31 (contains HSI relevant DIDs)  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM) | Technology Development  Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | |
| Milestone decision approved  Data and information reports for populating product PLM  Source data for Contractor Logistics Supportability Data Checklist 2.50  Technical Reports delivered which reflect results of maintenance task analysis and Reliability Centered Maintenance provide information for selection of Source Maintenance and Recovery (SMR) codes, Spares, support equipment, Technical Manuals, and so forth  Individual Repairable Item Data delivered to support Level of Repair decisions  Technical Reports delivered that detail maintenance plans for all repairable items  Technical Reports delivered which provide source data for Technical Maintenance Data and Technical Orders  Provisioning Technical Data supports supply support  LMI Data Input to Support Equipment Recommendation Data  Technical Reports delivered support Manpower and personnel Estimates and Training Planning  All proper supporting documentation put in the official files  LMI validated at Physical Configuration Audit (PCA) review all support data and assured the data matches the physical system | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [2.37.2](#P2_37_2) | Address Automated Test Systems (ATS) Acquisition | | Support Equipment Recommendation Data or equivalent ATS requirement documentation | |
| **DESCRIPTION:** | | | | |
| This checklist enables the Program Manager to make an ATS selection for each requirement that fits within the total DOD investment strategy context, i.e., the costs incurred are to be leveraged to the maximum extent possible within a Service and/or across the joint Services spectrum. The Automated Test Systems Acquisition Checklist provides guidance for defining, developing and implementing ATS solutions for logistics support of Air Force weapon systems. This checklist aids in ensuring that ATS requirements are satisfied while minimizing duplication of existing capability and total ownership costs for all weapon systems. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Identify the weapons system support/test requirements    1. Test Requirements    2. Maintenance Requirements (LSA/LSAR)    3. Operational Requirements 2. Define the various support/test alternatives    1. DOD ATS Family    2. Commercial Tester    3. Existing Service ATS    4. Other DOD Inventory ATS    5. Combination of above    6. New Development ATS 3. Analyze the alternatives    1. Parametric Analysis (UUT test requirements vs. ATS capabilities)    2. Operational Assessment    3. Cost Benefit Analysis    4. ATS Support Requirements       1. Special Tools and Support Equipment       2. Calibration Requirements (AFMETCAL)    5. Consider Environment, Safety & Occupational Health (ESOH) impacts    6. Consider HSI implications 4. Select the appropriate ATS support alternative   **Sample Documents:**  [SERD Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880831&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | [DODD 5000.01](http://www.dtic.mil/whs/directives/corres/pdf/500001p.pdf) The Defense Acquisition System [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Ref. 8c(1)(c)2c  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AFPD 63/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life Cycle Management  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management Para 3.96  [DOD ATS Executive Directorate Home Page](http://www.acq.osd.mil/ats/)  [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=333024#4.4.19.4) (4.4.19.4)  [2009 ATS Master Plan](http://www.acq.osd.mil/ats/2009_DoD_ATS_Master_Plan.pdf)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 6-16  [DOD ATS Selection Guide (2009)](http://www.acq.osd.mil/ats/DoD_ATS_Selection_Process_Guide_-_2009.pdf)  [Joint ATS MOA (July 2004)](http://www.acq.osd.mil/ats/2004_Joint_ATS_MOA.pdf)  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Material Management | | Technology Development |
| **EXIT CRITERIA:** | | | | |
| ATS Acquisition Strategy | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.37.3](#P2_37_3) | Address Support Equipment Management | Capability Development Document  Supportability Key Performance Parameters  Product Support Strategy (ref. Life Cycle Management Plan)  Mission Assignment Decision  Source Of Repair Assignment Process/core/Candidate Depot Decision  Systems Engineering Plan  System Performance Specification  Acquisition Strategy Plan complete | | |
| **DESCRIPTION:** | | | | |
| Definition: Support Equipment (SE) and its associated logistics support, is all equipment (mobile or fixed) required to support operations and/or maintenance of a materiel system. This includes associated multiuse support items, ground-handling and maintenance equipment, tools, metrology and calibration equipment, and manual/Automatic Test Equipment/System (ATE/ATS). This checklist enables the Program Manager to make a SE selection for each requirement that fits within the total DOD investment strategy context, i.e., the costs incurred are to be leveraged to the maximum extent possible within a Service and/or across the joint Services spectrum. The Support Equipment checklist provides guidance for defining, developing, implementing and sustaining SE solutions for logistics support of Air Force weapon systems. This checklist aids in ensuring that SE requirements are satisfied while minimizing proliferation and total ownership costs for all weapon systems. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Establish SE IPT and DMAWG (checklist 2.06) to include ALC (PSI and SE Manager), Program Office, MAJCOM, AFMETCAL, Prime Contractor, etc. 2. Minimize the proliferation of system-unique equipment while ensuring the maintenance and deployment requirements of existing and developing systems are met. Acquire SE, to include ATS, that is to the maximum extent common and interoperable with other Services and across multiple weapon systems and munitions. Peculiar SE, to include ATS, shall be developed only as a last alternative. 3. Consider HSI implications. See HSI Requirements Pocket Guide pages 6-16 4. Plan for T.O. (checklist 5.41.1), support for SE (include all Product Support elements), Supply Support (checklist), Configuration Management, Item Unique Identification (IUID) (Task 1.20), testing and validation/certification, scheduling (checklist 2.37.1). 5. Ensure cost estimate is completed (checklist 2.25). Make POM inputs (checklist 2.28) 6. Process SERD (checklist 2.37.6). Ensure review with SE IPT. 7. Ensure testing is planned and accomplished 8. Ensure equipment is delivered and fielded (checklist 4.14) 9. Plan for Sustainment of Support Equipment (see task 5.49)    1. Identify additional requirements through the requirements determination process. AFEMS\* is updated by MAJCOMs and will feed the D200C\* Equipment requirements computation. D200C\* is run quarterly and provides requirements data to the SE item manager.    2. Develop acquisition program for required replacements and to fill new shortages. Address all PS elements during planning stages to ensure supportability of newly acquired SE. Both investment and O&M funded items (checklist 2.37.4)    3. Input to the budget process by developing Buy/Budget Review Folders requested by D200C\* Requirements Control Officer (RCO), investment funded only, O&M support equipment items funded through CAM.    4. Accomplish required SE modifications by budgeting CCB process    5. Respond to AFTO 22 requests safety issues or changes by accomplishing required TO update.    6. Perform required repair actions as dictated through the CAM process See task 5.25    7. POM inputs- Prepare justification needed to obtain 3400 funding to include TDY, supplies, A&AS, BP16, provisioning.    8. Coordinate Calibration requirements with AFMETCAL (checklist 2.37.4)    9. Update Technical Order-Plan for TO updates when field submits changes via the AFTO 22 process and changes are approved or new instruments are included in systems. When a new configurations is procured, the TO must be updated.    10. Obsolete Items Plan for diminishing manufacturing should be addressed by contacting the commodity PM to identify the preferred replacement item.    11. Modifications    12. Perform Analysis of Refurbish or Replenish or Replacement when a system is plagued by obsolete items and/or bad actors this analysis should determine if the system needs a mid-life upgrade or there should be a total system replenishment    13. Disposal-send to DRMO    14. Consider Environment, Safety & Occupational Health (ESOH) impacts    15. Consider HSI implications. See HSI Requirements Pocket Guide pages 6-16 | | | [FEDLOG Information Center](http://www.dlis.dla.mil/FedLog/default.asp)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [Air Force Equipment Management System](https://www.afems.wpafb.af.mil/afems/splash.html)\*  \*To be subsumed by the Expeditionary Combat Support System (ECSS), see [ECSS SV8](https://afkm.wpafb.af.mil/ASPs/docman/DOCMain.asp?Tab=0&FolderID=AF-LG-00-14-14-2&Filter=AF-LG-00-14) for projected date  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Material Management  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 6-16  **Sample Documents:**  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE) | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production and Deployment  Operations and Support |
| **EXIT CRITERIA:** | | | | |
| Supportability Data (Contract Data Requirements List, drawings, Calibration Measurement Requirements Summary, Acceptance Test Procedures, Test Requirements Documents, Test Program Sets,  Incorporated in Integrated Master Plan/Integrated Master Schedule  Updated Test Evaluation Master Plan  Updated Systems Engineering Plan  Under Operations and Maintenance Phase demilitarization and disposal plan | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.37.4](#P2_37_4) | Calibration Support for New Acquisitions | Initiation of all new acquisitions | | |
| **DESCRIPTION:** | | | | |
| Definition: Calibration is a comparison between equipment items, one of which is a measurement standard of known accuracy, to detect, correlate, adjust and report any variation in the accuracy of the other item(s).  This checklist reminds the program manager (PM) to consider calibration requirements when initiating a new acquisition. The Air Force Metrology and Calibration Program (AFMETCAL) will assist the PM in a comprehensive review of the weapon system and related support equipment calibration requirements. A comprehensive evaluation of calibration requirements will address verification of system performance parameters from initial acceptance through lifecycle maintenance. The USAF has extensive organic calibration capabilities in equipment standards, laboratories (PMELs), and procedures. Lifecycle calibration costs for your program or system can be minimized by consulting with AFMETCAL. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Include AFMETCAL when defining supportability requirements.    1. Calibration Measurement Requirements Summary (CMRS) 2. Include AFMETCAL when defining supportability requirements in the draft CDD    1. Legal Liability concerning calibration [Legal Liability letter from SJA](https://www.my.af.mil/gcss-af/USAF/AFP40/d/s6925EC134DCE0FB5E044080020E329A9/Files/editorial/LegalLiabilityMar2008A.pdf) 3. Submit a data call to AFMETCAL, send to [DataCall@afmetcal.af.mil](mailto:DataCall@afmetcal.af.mil) for CDRL requirements. Include CDRL requirements in the contract.    1. Calibration Measurement Requirements Summary (CMRS)    2. Requirement for SERDs    3. Calibration procedures and related technical data 4. Include AFMETCAL in the Support Equipment IPT.    1. Participate in ILS meetings    2. Participate in PDR, CDR, Validation/Verification    3. Review CMRS data    4. Review SERD data    5. AFMETCAL provides input to PM on calibration support concept based on system’s accuracy requirements and available calibration standards 5. AFMETCAL will Review Technical Data    * 1. System KPPs      2. System CMRS Send to [CMRS@afmetcal.af.mil](mailto:CMRS@afmetcal.af.mil)      3. SE commercial technical data      4. SERD data Send to [SERD@afmetcal.af.mil](mailto:SERD@afmetcal.af.mil) 6. AFMETCAL will evaluate calibration support alternatives 7. Vendor Support (CLS) 8. User Calibration 9. Automated Calibration (PATEC Concept) 10. PMEL Supported 11. Regional / AFPSL supported 12. Hazardous Material usage 13. AFMETCAL will establish and maintain calibration support concept 14. Publish calibration authority in TO 33K-1-100 / Weapon System Calibration Measurement Summary (CMS) 15. Publish 33K series calibration technical orders 16. Assist in Test Program Sets (TPS) development 17. Provide life cycle calibration support | | | [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6.A, Enclosure 6, Para 1.b  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [MIL-STD-1839D](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=67317) Calibration and measurement requirements  [DI-QCIC 80278B](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=206453) Calibration Measurement Requirements Summary (CMRS)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf)  Acquisition & Sustainment Life Cycle Management  [AFI 21-113](http://www.e-publishing.af.mil/shared/media/epubs/AFI21-113.pdf) Air Force Metrology and Calibration Program  [TO 00-20-14](http://www.robins.af.mil/shared/media/document/AFD-070517-021.pdf) Air Force Metrology Program  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Materials Management  [TO 33K1-100](https://www7.my.af.mil/USAF/AFP40/d/s6925EC134DCE0FB5E044080020E329A9/Files/editorial/K100-1-Nov-09-Final.pdf) Calibration Measurement Summaries - See your TODO to order  33K series Calibration TOs | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Assist with acceptance testing of deliverables when appropriate.  Establishment of a calibration support concept | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.37.6](#P2_37_6) | Support Equipment Recommendation Data (SERD) process | ALC (PSI assigned) has to be identified  Mission Assignment Process  Need for Support Equipment | | |
| **DESCRIPTION:** | | | | |
| Support Equipment Recommendation Data (SERD) – A contract deliverable document that lists recommended specific items of support equipment to support a weapon system or item of equipment | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. PM with PSM contacts Prime Provisioning Activity (PPA) at the ALC 2. PPA will provide CDRL(DI-ALSS-81530/T) with attached documentation to PM 3. PM will include SERD CDRL in RFP 4. After contract award PM notifies PPA of contract number 5. Contractor submits SERD to PPA and PM 6. PPA distributes SERD and AFMC Form 603 to stakeholders for review and comments/concurrence 7. PPA submits consolidated AFMC 603 to PM 8. PM prepares AFMC Form 9 indicating disposition from info on AFMC Form 603 9. PM sends Form 9 to PPA and contractor   **Primary Stakeholders – SERDs and Support Equipment**  **Allowance Standards (AS) Manager:** Evaluates the Basis of Issue (BOI) for items to be included in the allowance document. Determines and provides notification of the applicable weapon system TRC and the Program Depot Maintenance (PDM) authorization source code of the applicable AS. Returns the annotated AFMC Form 603 to the SERD Coordinator for stakeholder consolidation.  **Calibration (AFMETCAL):** Provides Calibration Measurement and Requirement Summaries (CMRS) if required for the piece of SE. Determines if inclusion in CMRS data item is required or not required. Determines if additional Test Measurement Diagnostics Equipment (TMDE) is required for calibration support of the recommended SE. Returns the annotated AFMC Form 603 to the SERD Coordinator for stakeholder consolidation.  **Cataloger - DLIS-KFGC:** Determines if the P/N on the SERD has an NSN assigned, and if so, annotates the NSN on the AFMC Form 603. Reviews the cataloging data to determine if the Air Force is a registered user. If the P/N is not stock listed, verifies the FSC assignment and annotates the correct FSC on the AFMC Form 603. Performs a technical analysis of the SERD for interchangeability and substitutability. Reviews stock listed items for validity of current management data. Determines if the piece of SE meets the guidelines for inclusion in MIL-HBK-300. Determines if a substitute item exists. Coordinates and returns the annotated AFMC Form 603 to the SERD Coordinator for stakeholder consolidation.  **Inventory Manager Specialist/Materiel Manager:** Determines how the item is to be managed / purchased and assigns the Method of Support (MOS) code on the AFMC Form 603 and returns it with name, office symbol and phone number to the SERD Coordinator for stakeholder consolidation. Coordinates on assigned NC Number in D143C and forwards the created 86 action to DLIS for NSN assignment  **Item (FSC) Equipment Specialist:** The ES determines/identifies if a similar item already exists in the government inventory (or may be modified) that will satisfy the requirement in lieu of acquiring the recommended piece of SE. If nonconcurring with the SERD gives the reason and the substitute part number/stock number desired. Nonoccurrence requires notification to the ES who manages the SE, and the provisioning office will make the notification. Verifies the SMR code (or changes it, as desired), provides correct IMC, DEMIL, ADPEC, PMIC codes. If CFE SE, the E.S. will assign a temporary stock number in D143C System and enter this NCC Number on the AFMC Form 603. Annotates requirements for a RIPPL, Technical Order and software for new SE. Returns the annotated copy of the AFMC Form 603 to the SERD Coordinator for stakeholder consolidation.  **Lateral ALC:** Receives SERD package from the PPA via e-mail for review/coordination by their ES and IMS/MM (duties as described above). The lateral ALC is responsible for cataloging new, procurable SMR-coded SE. Upon completion, the AFMC Form 603 is returned to the PPA for stakeholder consolidation. (Suspense 36 days)  **Provisioning Specialist:** Receives the SERD electronically from the contractor or SPO, assigns a Registry Control Number (RCN), prepares the file folders, includes a copy of the D043A screening and forwards the package to the SERD Coordinator. Also provides a SERD Data Sheet (on new contracts) to the SERD Coordinator, giving names of stakeholders. Upon receipt of PCL for SERDs requiring a RIPPL, it is the responsibility of the PS to request a Cost Proposal from the Contractor for submittal of the RIPPL.  **SERD Coordinator** Receives the SERD package from the PS and prepares the AFMC Form 603. Electronically sends the SERD, AFMC Form 603 and the D043A screening to the appropriate stakeholders (System ES and DLIS, simultaneously). Consolidates replies and forwards to all other stakeholders simultaneously. Initiates a follow-up if replies are not received by the assigned suspense date. A follow-up is forwarded up the chain of command until the reply is received.  Quality checks all replies, making sure there are no conflicting responses, consolidates the replies on the AFMC Form 603.  Sends the completed AFMC Form 603 to the SPO electronically, and requests a completed AFMC Form 9 (suspense: 15 days).    Upon receipt of the AFMC Form 9, forwards a copy to all the stakeholders and files a copy in the folder.  If a RIPPL is required, requests the Program Manager complete a PCL in IRD and notify the SERD Coordinator of the Application Program Designator (APD). Upon receipt, the SERD Coordinator prints a copy of the PCL for the file and provides a copy to the PS.  **System Program Office (SPO):** Provides approved/disapproved AFMC Form 9 to the contractor with a copy to the SERD Coordinator.  **Supply Support Request AFMC Form 918 (SSR) Provisioner:** (DLA/other service) Inputs SERD information into the D169 System and forwards SERD Package to DLA/other service for support of AF requirement and/or NSN assignment.  **Product Support Integrator (PSI) Equipment Specialist (ES):** Performs a technical review of the SERD package to determine if the recommended item is an appropriate solution to the test or repair requirements. Determines if similar equipment already exists in the government inventory and should be used or may be less expensively modified than that recommended by the contractor. Recommends the Source/Maintenance/Recoverability (SMR) code; Expendability, Reparability, Recoverability Category (ERRC) code (only SE cataloged with S or U ERRC may be entered into the Allowance Standards (AS)); Item Management Code (IMC); Demilitarization (DEMIL) code; Automatic Data Processing Equipment Code (ADPEC); Precious Metals Indicator Code (PMIC), and if applicable, the Materiel Management Aggregation Code (MMAC). Identifies the subsystem Technical Repair Center (TRC) using the item and if the item is repairable, the TRC to repair the item. Returns the annotated AFMC Form 603 to the SERD Coordinator for stakeholder consolidation.  **Technology Repair Center (TRC):** Reviews the SERD to ensure the SE requirements are included and to determine if quantities, support dates, and acquisition policies are compatible with present and planned workloads. If an additional or a lesser quantity is required other than what the contractor recommends, provides the quantity and a justification. Returns the annotated AFMC Form 603 to the SERD Coordinator for stakeholder consolidation.  **Using Commands:** Reviews the SERD to ensure the SE requirements are included and to determine if the quantities, support dates, and acquisition policies are compatible with present and planned workloads. If an additional or a lesser quantity is required other than what the contractor recommends, provides the quantity and a justification. Returns the annotated AFMC Form 603 to the SERD Coordinator for stakeholder consolidation. | | | [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf)  Acquisition & Sustainment Life Cycle Management Para 3.96.1.5  [638 SCMG SERD Guide](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=10478970&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [AFR 800-12](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=4403842&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) (Rescinded, Best Practice)  **Sample Documents:**  [SERD Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880831&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [Support Equipment Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880753&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development |
| **EXIT CRITERIA:** | | | | |
| SERD with final disposition | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.37.12](#P2_37_12) | Implement System Lifecycle Integrity Management Processes and Programs (i.e. Weapon System Integrity Programs (WSIP), Condition Based Maintenance Plus (CBM+), Reliability Centered Maintenance (RCM)) | Capability Review & Risk Assessment (CRRA)  Initial Capability Document  Capability Development Document  Capability Production Document  Systems Engineering Plan  Life Cycle Management Plan  Functional Baseline | | |
| **DESCRIPTION:** | | | | |
| SLIM is the integration of Weapon System Integrity Programs (WSIP), Condition Based Maintenance (CBM+); Reliability, Availability and Maintainability (RAM); Reliability Centered Maintenance (RCM), Maintenance Steering Group 3 (MSG-3), Aircraft Information Program (AIP), and Military Flight Operations Quality Assurance (MFOQA). SLIM is focused on implementing standardized processes and tools associated with improving, monitoring and assessing weapon system performance leading to increased proactive weapon system management and product improvement throughout the system’s lifecycle.  CBM+ is the application and integration of appropriate processes, technologies and knowledge based capabilities to improve the reliability and maintenance effectiveness of DOD systems and components. At its core, CBM+ is maintenance performed on evidence of need provided by reliability centered maintenance (RCM) analysis and other enabling processes and technologies. CBM+ uses a systems engineering approach to collect data, enable analysis, and support the decision making processes for system acquisition, sustainment and operations.  In conjunction with design interface and related life cycle cost, reliability and maintainability design activities optimize maintenance plans using prognostics and diagnostics technologies in conjunction with Reliability Centered Maintenance (RCM) efforts in the context of OSD defined CBM+. The objective is to minimize maintenance time and expenses balanced against acquisition and production costs and life cycle sustainment costs. CBM+ is performed in conjunction with supportability analysis and related system engineering for reliability, maintainability and sustainment, and is one of the OSD Enabling Techniques for life cycle logistics. Prognostics and diagnostics include engineering studies to optimize application of built in test, condition monitoring, operating environment recording and develop detailed knowledge of the relationship between how the equipment is used and how it approaches situations where fault tolerance is degraded and preventive maintenance tasks are needed. Prognostics done in conjunction with more traditional maintenance task analyses including RCM will permit minimum life cycle costs while maximizing equipment readiness. RCM is a process where the failure modes and effects (FMEA) are analyzed to develop scheduled preventive maintenance tasks to assure the system is safely maintained to perform the mission as well as justified increased reliability performance. CBM+ seeks to lengthen the period between scheduled maintenance tasks while assuring safe and economical operation. All maintainability analyses provide opportunities to justify either maintenance tasks or improved reliability. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Develop supportability requirements in the system functional baseline. Interact with the lead command to determine maintenance concepts, manpower and skills limits, and maintenance burden per unit of operation, built in test objectives, support equipment criteria and related maintainability requirements.   1. Plan to maximize the use of digital flight data recorders and on-aircraft sensors to automate data collection for: maintenance data, usage data, failure data, parts replacement data, detailed crack data, etc. Ensure there is a product support business case (cost, weight, downtime, etc) to support the use of on-aircraft sensors. 2. Coordinate the development of diagnostic and prognostic algorithms to facilitate performance monitoring of the weapon system. Monitor design progress for opportunities to implement diagnostics, prognostics and continuous process improvement activities. 3. Assure the requirements are clearly reflected in the system functional baseline and that they are feasible and a test/verification process is planned and resources assigned to verify maintainability achievement. Gray beard lesson learned: equipment built in test languages need to be compatible with Automated Test Equipment and calibration standards used by the USAF. (See Checklist 2.37.4) 4. Manage the development of a maintainability & reliability growth program. These programs will be maintained and updated throughout the system’s lifecycle 5. Monitor the execution of system and sub-system Failure Modes and Effects and Criticality Analysis (FMECA) IAW MIL-STD-1692 and MIL-STD-1843. 6. Assure feedback to justify reliability, maintainability and testability design features are applied to the development of item development specifications. Analyze support resource impacts of reliability, maintainability and testability design performance. 7. Coordinate reliability, maintainability and supportability data formats and recording systems with the Product Life Cycle Management activity within the program management office. Prepare to deliver logistics management information using GEIA-STD-0007 A. 8. Perform RCM analysis. Determine minimized Total Ownership Cost maintenance tasks for scheduled and preventive maintenance tasks. 9. Understand system risks related to maintenance activities and justify preventive and scheduled maintenance based on safety, performance and costs. Use required skills, man hours, spares, support equipment, fault isolation processes and related resources estimates required to achieve equipment readiness requirements in both FMEA and RCM evaluations. Retain estimates for use in identifying maintenance task requirements and developing maintenance plans. 10. For maintenance tasks that require time change, determine if the maintenance task could be improved in terms of ownership costs and equipment readiness, if prognostics and diagnostics is applied to reduce maintenance and spare part costs. 11. Document detailed maintenance tasks and required skills, man hours, spares, support equipment, fault isolation processes and related resources required to achieve equipment readiness requirements. Insure this data is available as source data for technical manuals development. 12. Perform level of repair analysis, using resource and frequency data developed from maintenance task analysis performed using RCM analysis data determine life cycle maintenance assignment of repair tasks to depots. Retain level of repair analysis report to support depot activation budgets and source of repair assignment (SORAP). 13. Monitor the Failure reporting and Corrective Action System (FRACAS), the Test Analyze and Fix (TAAF) and maintenance demonstration process for achieving system performance. 14. Participate in validation of maintenance activities and modeling and simulation of effects of achieved reliability and maintainability requirements. Models should include Finite Element Models (FEM), and 3-D Computer aided design (CAD)/Computer aided manufacturing (CAM) models to support Integrity Programs and the Maintainability and Reliability Growth Programs. 15. Coordinate in the development of prognostics and predictive maintenance support and deliver trade and engineering studies to the sustaining engineering function for future applications of maintenance and reliability improvement programs. 16. Monitor Design Test and Evaluation for reliability and maintainability performance. 17. Support System Level Logistics Demonstrations. 18. Analyze results of System Level Logistics Demonstrations against requirements. Certify system ready for Operational Test and Evaluation (OT&E). 19. Assure that Item Unique Identification is applied to appropriate supply items to assist in life cycle management of individual spare parts and aid in capturing time and usage related data. | | | [AF SLIM Guide](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=7976976&Function=ViewDocument&FolderID=OO-TR-AF-10-36&Filter=OO-TR-AF-10)  [DOD CBM+ Guidebook](http://www.acq.osd.mil/log/mpp/cbm+/CBM_DoD_Guidebook_May08.pdf)  [AFMCI 21-103](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI21-103.pdf) Reliability Centered Maintenance  [DOD RAM Guide](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [MIL-HDBK-515](https://assist.daps.dla.mil/docimages/A/0000/0021/2249/000000349694_000000166370_RAJNSXDSQJ.PDF?CFID=7270650&CFTOKEN=94653742&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Weapon System Integrity Guide (WSIG)  [MIL-STD-1530C](https://assist.daps.dla.mil/docimages/A/0000/0003/6952/000000486252_000000155043_MEBIYVSBNP.PDF?CFID=7269839&CFTOKEN=36834248&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Aircraft Structural Integrity Program (ASIP)  [AFI 63-1001](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1001.pdf) Aircraft Structural Integrity Program (ASIP)  [MIL-STD-3024](https://assist.daps.dla.mil/docimages/A/0000/0027/6036/000000608667_000000208445_QRZNBUJRNO.PDF?CFID=7270084&CFTOKEN=80100708&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Propulsion System Integrity Program (PSIP)  [MIL-STD-1798](https://assist.daps.dla.mil/docimages/A/0000/0007/1161/000004886413_000000216271_LSFWUBHFYR.PDF?CFID=7270306&CFTOKEN=23978293&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Mechanical Equipment and Subsystems Integrity Program (MECSIP)  [MIL-HDBK-87244](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=115812) Avionics/Electronics integrity Program (AVIP)  Cancelled, Best Practice  [AFPD 63-1/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life Cycle Management  [AFI 90-1301](http://www.e-publishing.af.mil/shared/media/epubs/AFI90-1301.pdf) Implementing Military Flight Operations Quality Assurance (MFOQA)  [AFI 63-1401](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1401.pdf) Aircraft Information Program  [MIL-HDBK-470A](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=120647) DOD Handbook - Designing and Developing Maintainable Products and Systems VOL I  [MIL-STD-1629](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=37027) Failure Modes, Effects and Criticality Analysis Cancelled, Best Practice  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [GEIA-STD-0007](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=7496807&Function=ViewDocument&FolderID=OO-LG-MC-39-27-7-1&Filter=OO-LG-MC-39) A Logistics Product Data  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [DODI 4151.22](http://www.dtic.mil/whs/directives/corres/pdf/415122p.pdf)  CBM+ for Materiel Maintenance  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)  [DODD 4151.18](http://www.dtic.mil/whs/directives/corres/pdf/415118p.pdf) Sustainment Life Cycle Management  [DODD 5134.01](http://www.dtic.mil/whs/directives/corres/pdf/513401p.pdf) (USD(AT&L))  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [CARD Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880725&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Material Solution Analysis  Technology Development  Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | | |
| Life Cycle Management Plan  Systems Engineering Plan  System Specification  Allocated Baselines  Functional Configuration Audit | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.37.13](#P2_37_13) | Develop a Diminishing Manufacturing Sources and Material Shortages (DMSMS) Program | Systems Engineering Plan (SEP)  Acquisition Strategy  Life Cycle Management Plan (LCMP) | |
| **DESCRIPTION:** | | | |
| Diminishing Manufacturing Sources and Material Shortages (DMSMS) is the loss or impending loss of manufacturers of items or suppliers of items or raw material DMSMS is caused when manufacturers of item or raw material suppliers discontinue production.  The objective is to reduce the impact of DMSMS by identifying and resolving DMSMS issues to ensure the continued availability of items and essential materials needed to support current and, when possible, planned defense requirements, by distributing notices, migrating legacy architectures toward an Open Systems Architecture, and providing DMSMS tools for the single manager. This checklist provides guidance for defining, developing, implementing and sustaining DMSMS solutions for logistics support of Air Force weapon systems. This checklist aids in ensuring that DMSMS program requirements are satisfied while minimizing proliferation and total ownership costs for all weapon systems. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensure understanding of the Program data acquisition strategy. To establish a DMSMS program engineering design data must be available down to piece/part level 2. Ensure the Program Manager addresses the need for a DMSMS program at the appropriate level. The Program Manager will identify a DMSMS program manager within the program. 3. Develop DMSMS program plan down to piece/part level. Ensure you coordinate with the logistician, engineer, DLA rep, OEM, financial manager, contracting officer and support contractors. 4. Review and update the DMSMS program plan annually or as required. 5. Ensure DMSMS issues are addressed in the:    * Acquisition Strategy    * Life Cycle Management Plan (LCMP)    * Systems Engineering Plan (SEP)    * All design reviews (PDR, CDR, SVV, etc.)    * Applicable software functionality    * Provisioning Conference    * Program Objective Memorandum and Budgetary cycles    * Program Cost Estimates    * Weapon System Support Program (WSSP) 6. Accomplish appropriate DMSMS training; courses include:  * DAU CLL-201 * DAU CLL-202 * DAU CLL-203 * DAU CLL-204  1. The DMSMS program manager will review technology product life cycle phase used in the design for obsolescence. This will include at minimum a review of the developers preferred parts list. 2. Execute the DMSMS program plan. This will include the use of Government Industry Data Exchange Program (GIDEP) and predictive tool(s) 3. Maintain awareness of emerging contaminants from the DOD Environment, Safety & Occupational Health Network & Information Exchange). 4. When entering the Production & Deployment phase, ensure that the appropriate contract language requires the developer to implement DMSMS best practices. 5. When entering the Operations & Support phase the maintenance and operational concepts will drive DMSMS program implementation. The DMSMS program manager will establish a multi-functional team for an organic maintenance program. Ensure all Performance-Based Logistics (PBL) or Contractor Logistics Support (CLS) contracts contain language requiring an active DMSMS program. 6. The program manager must be aware of all potential changes in maintenance and support concepts I.E. CLS to Organic, for DMSMS implications. | | [DMSMS Guide Book](http://www.dau.mil/pubscats/PubsCats/SD-22%20DMSMS%20Guidebook.pdf) SD-22  [DOD 4140.1-R](http://www.dtic.mil/whs/directives/corres/pdf/414001r.pdf) DOD Materiel Management Regulation Chap 3 Sec 6  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [AFMCI 23-103](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-103.pdf) Diminishing Manufacturing Sources & Material Shortages Program  [AFI 21-118](http://www.e-publishing.af.mil/shared/media/epubs/AFI21-118.pdf) Improving Air and Space Equipment Reliability & Maintainability Chapter 2  [AFMCI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI63-1201.pdf) Implementing Operational Safety Suitability and Effectiveness (OSS&E) and Life Cycle Systems Engineering  [DLA One Book](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3539180&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) Industrial Capabilities Section  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  Defense Acquisition University [www.dau.mil](https://learn.dau.mil/html/clc/Clc1.jsp?cl=)  [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) USAF Supply Manual Vol. 1, Part 1, Chap. 11AK (WSSP)  [DOD Environment, Safety & Occupational Health Network & Information Exchange (DENIX)](http://www.denix.osd.mil/cmrmd/ECMR/index.cfmhttp:/www.denix.osd.mil/cmrmd/ECMR/index.cfm)  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [POM Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880748&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [RFP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880750&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | |
| DMSMS program plan  Updates to SEP  Updates to LCMP  Program Objective Memorandum and Budgetary inputs  Program Cost estimate inputs  Inputs to Request for Proposal (RFP) section L&M and Contract Data Requirements List (CDRL) for technical data | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.37.14](#P2_37_14) | Develop Supply Support Strategy | Approved CONOPS  Contract Awards  Initial Capabilities Document (ICD)  Capability Development Document (CDD)  Configuration Control Board (CCB) established | |
| **DESCRIPTION:** | | | |
| Supply Support consists of all management actions, procedures, and techniques necessary to determine requirements to acquire, catalog, receive, store, transfer, issue and dispose of spares, repair parts, and supplies. This means having the right spares, repair parts, and supplies available, in the right quantities, at the right place, at the right time, at the right price. The process includes provisioning for initial support, as well as acquiring, distributing, and replenishing inventories | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Understand the product support strategy, maintenance concept and CONOPS    1. Performance-Based Logistics (PBL)    2. Public-Private Partnership (PPP)    3. Contractor Logistics Support (CLS)    4. Organic Standard Base Supply System (SBSS)    5. Interim Contractor Support (ICS)    6. Interoperability considerations 2. Include the supply support technical requirements in the Statement of Objectives (SOO) / Request for Proposal (RFP). Ensure data rights are included in the RFP. 3. Review the Depot Source of Repair (DSOR) and Source of Repair Assignment Process (SORAP) decision for possible impacts to supply. 4. Establish inventory control points 5. Ensure supply cost requirements are input to the cost estimate, Program Objective Memorandum (POM), Centralized Asset Management (CAM) and budgeting annually or as required.    1. Initial and replenishment spares    2. Spares for support and training equipment    3. Readiness Spares Package (RSP)    4. Depot Level Repair (DLR) and Depot Purchased Equipment Maintenance (DPEM)    5. Spares to support planned test programs    6. Spares requirements for classified non-reporting bases    7. Reclamation 6. Ensure Total Asset Visibility (TAV) is addressed (RFID, Item Unique Identification (IUID), Serialized Item Management, AF Global Logistics Support Center (AFGLSC). 7. Participate in the Provisioning Guidance Conferences and Provisioning Conferences. Ref provisioning checklist 8. Participate in Weapon System Support Program (WSSP) if weapon system uses Defense Logistics Agency (DLA) parts. 9. Assign and maintain Standard Reporting Designators (SRD) 10. Acquire initial, replenishment and pre-operational supply support.     1. Establish stock levels as required     2. Ensure Packaging, Handling, Storage & Transportation (PHS&T) has been addressed     3. Use Military Interdepartmental Purchase Request (MIPR)     4. Ensure DLA & AF cataloging requirements are included in the RFP 11. Manage supply sustainment     1. Ensure quarterly computations for buy and repair actions are occurring.     2. Establish Requirements Data Exchange List (RDEL) requirements to Primary Inventory Control Activity (PICA) 12. Plan for and execute demilitarization and disposal of assets 13. Participate in Configuration Control Boards (CCB) and take appropriate supply support actions as required 14. Establish Military Standard Requisitioning and Issue Procedures (MILSTRIP) authority as required 15. Consider hazardous materials and other safety concerns during PHS&T and disposal of spares   Note: Review LogEA CONOPS for compliance with architecture – creation of Operational / System / Technical View document may be required | | [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [PBL Guide](https://acc.dau.mil/GetAttachment.aspx?id=32536&pname=file&lang=en-US&aid=6154)  [DOD 4140.1-R](http://www.dtic.mil/whs/directives/corres/pdf/414001r.pdf) DOD Materiel Management Regulation  [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) USAF Supply Manual  [T.O. 00-25-195](http://www.tinker.af.mil/shared/media/document/AFD-061220-055.pdf) AFTO Source, Maintenance, and Recoverability Coding of AF Weapons, Systems & Equipments  [DOD 2010.4](http://www.dtic.mil/whs/directives/corres/pdf/201004p.pdf) Entire Instruction Applies  [AFPD 23-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD23-1.pdf) Materiel Management Policy & Procedures  [AFI 23-120](http://www.e-publishing.af.mil/shared/media/epubs/AFI23-120.pdf) AF Spares Requirements Review Board  [AFI 23-102](http://www.e-publishing.af.mil/shared/media/epubs/AFI23-102.pdf) Operational Requirements Instructions for Determining Materiel Requirements for Reparable Items  [AFI 23-105](http://www.e-publishing.af.mil/shared/media/epubs/AFI23-105.pdf) Spares Breakout Program  [AFMCI 23-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-101.pdf) AF Provisioning Instruction  [AFMCI 23-111](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-111.pdf) Reclamation of Air Force Property  [10 USC 2464](http://www.gpoaccess.gov/uscode/index.html)  [10 USC 2466](http://www.gpoaccess.gov/uscode/index.html)  [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) USAF Supply Manual Vol. 1, Part 1, Chap. 7 & 11AK  [AFMCMAN 23-3](http://www.e-publishing.af.mil/shared/media/epubs/AFMCMAN23-3.pdf) Cataloging and Standardization  [AFI 23-106](http://www.e-publishing.af.mil/shared/media/epubs/AFI23-106.pdf) Assignment and use of Standard Reporting Designators  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Material Management  [AFI 32-7042](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7042.pdf) Solid and Hazardous Waste Compliance  [MIL-HDBK-245](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=53962) Preparation of Statement of Work (SOW)  [Statement of Objectives (SOO) Information Guide](http://www.google.com/url?sa=t&source=web&cd=1&ved=0CBYQFjAA&url=https%3A%2F%2Fdap.dau.mil%2Fpolicy%2FDocuments%2Fpolicy%2FStatementofObjectivesInformationGuide.doc&ei=tZEETvWvBoe4tweH-ZnSDQ&usg=AFQjCNG-h2XmSb_YyBQ6jkVha4_cyma1Cg)  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [POM Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880748&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | |
| Provide input for LCMP update  Inputs to POM, budget, CAM and cost estimates  All tasks identified in the AFMC Form 718 completed  Data in WSSP workbench updated  Source of Repair Assignment Process (SORAP) as required | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.37.15](#P2_37_15) | Contract Data Requirements List (CDRL) | Initial Capability Document (ICD)  Capability Development Document (CDD)  Capability Production Document (CPD)  Acquisition Strategy  Life Cycle Management Plan (LCMP)  System Engineering Plan (SEP)  Statement of Work (SOW) | |
| **DESCRIPTION:** | | | |
| The purpose of the Contractor Data Requirements List (CDRL) is to control the generation of data requirements to ensure effectiveness and economy in support of systems and equipment. Contractor data includes all administrative, management, financial, scientific, engineering, and logistics information and documentation listed in DD Form 1423 for delivery or deferred delivery to the Air Force. Data Item Descriptions (DID) define the data required of a contractor and specifically defines the data content, preparation instructions, format, and intended use.  The CDRL provides the standard format for identifying potential data requirements in a solicitation and deliverable data requirements in a contract. The CDRL gives delivery instructions for the data and instructions for tailoring out unnecessary DID requirements. The CDRL, when made part of the solicitation, shall include every known and anticipated data requirement. The offerors are asked to provide a price estimate for each technical data requirement. The CDRL corresponds to the DD Form 1423, DD Form 1423-1 and DD Form 1423-2 in Section J of the RFP.  A data call is the formal procedure used by the data manager to acquire data requirements for a given program. A Data Requirements Review Board (DRRB) will review and recommend approval or disapproval of data requirements. This board is normally comprised of functional representatives having significant data requirements. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Participate with cross-functional team in the development of the technical data acquisition strategy.    1. Contact the designated appropriate logistics organizations regarding data calls activities    2. Ensure all aspects of the program, including the operational and maintenance concepts, acquisition strategy, etc. are made known to the appropriate logistics organizations 2. Respond to the data requirements call issued by the Program Manager, Data Manager or other responsible official by identifying the minimum essential data requirements for logistics.    1. Identify all logistics data activities that require data    2. Screen incoming data requests from logistics functional areas to make sure their data requirements have been tasked by the SOW and consolidate any duplicate or overlapping data requests    3. Make sure data requests are contained in ASSIST    4. Contact data requesters and ask about the possibility of delaying/deferring data delivery, using contractors’ format and discuss their justification for the data 3. Provide input to the DRRB or equivalent; be prepared to defend each logistics data request. 4. Validate approved DIDs are included in the contract 5. Notify appropriate logistics organizations of any changes in the program (requirements, schedules, budgets, etc.) in order to assess the impact on data needs 6. Consider a CDRL for facilities requirement plan 7. For follow-on contracts, notify appropriate organizations what data has already been acquired; data manager should have a complete data list delivered during previous phases. | | [DOD 5010.12-M](http://www.dtic.mil/whs/directives/corres/pdf/501012m.pdf), Procedures for the Acquisition and Management of Technical Data  [MIL-STD-963B](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=202450), Preparation of Data Item Descriptions (DIDs)  [Acquisition Streamlining and Standardization Information System Tool](http://assist.daps.dla.mil/quicksearch/) ASSIST Quick Search - Enter “DI” in the [Document ID] block and click [Submit] button, to generate a list of over 1100 DIDs  [DODI 7750.7](http://www.dtic.mil/whs/directives/corres/pdf/775007p.pdf) DOD Forms Management Program  [TM-86-01](https://techdata.wpafb.af.mil/toprac/TM-86-01M_(20061106).doc), Technical Manual Contract Requirements  [Data Management Info Sheet](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=4384367&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [OC-ALC Data Management Presentation](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=4384358&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [AF FORM 585](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=4384353&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [DD Form 1423](http://www.dtic.mil/whs/directives/infomgt/forms/eforms/dd1423.pdf)  [DD Form 1423-1](http://stinet.dtic.mil/stinfo/data/DD14231.pdf)  [DD Form 1423-2](http://www.dtic.mil/whs/directives/infomgt/forms/eforms/dd1423-2.pdf)  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [RFP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880750&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Materiel Solution Analysis  Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | |
| Data Requirements for Request For Proposal (RFP)  Finalized CDRL | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.46](#P2_46) | Participate in Integrated Baseline Review (IBR) | Contract Award  Responsibility Assignment Matrix (RAM)  Work Breakdown Structure (WBS)  Statement of Work (SOW)  Contractor Work Breakdown Structure (CWBS) Dictionary  Integrated Master Schedule (IMS)  Control Account Plans (CAP)  Risk Management Plan  Government Furnished Property (GFP) Plan  IBR Plan | | |
| **DESCRIPTION:** | | | | |
| The purpose of an IBR is to establish and maintain a mutual understanding of the risks inherent in the performance measurement baseline and the contractor’s management processes during program execution. The IBR is part of integrated project management and should be seen as a continuous “process” versus a standalone event throughout the program’s life cycle. According to DOD acquisition policy, all programs must conduct an IBR if the contract requires an Earned Value Management (EVM) system.  The program manager is responsible for the IBR and will require the technical staff and IPT leads to support this effort. Prior to attending an IBR all participants will attend required training, prepare for the IBR, and lead/conduct IBR baseline discussions regarding functional area of expertise. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. In preparation for the IBR, the logistician reviews available documentation, e.g., responsibility assignment matrix, SOW, WBS, CWBS Dictionary, work authorization documents, schedules, control account plans, risk plan, GFP plan, etc. 2. The logistician also reviews the contractor developed baseline control account plans for product support. The individual will assess plans for realism at the lowest level. Normally, a program will strive to review approximately 80 percent of the contract value. Review will consist of    * Significant logistics elements    * Product support risk areas    * Logistics elements on the critical path 3. Typical discussions will revolve around the methodology the contractor used to develop the work authorization document, schedule planning and basis of estimate that make up each control account plan. Each control account is evaluated to determine if it is a high, moderate or low risk to the program. 4. The logistician will prepare their portion of the outbriefing addressing the five IBR goals:    * Technical scope is fully included and consistent    * Scheduled key milestones identified in a logical flow    * Contractor resources are available and adequate    * Tasks are planned and can be measured objectively    * Management processes support successful execution 5. In some cases, the prime contractor will ask the government to participate in an IBR for their subcontractors or company’s interdivisional sites. The same process is used to discuss baseline with sub-control account managers. 6. The logistician will monitor any IBR logistics action items and track their progress at joint management reviews. | | | OUSD(AT&L) letter, [Revisions to DOD Earned Value Management Policy](http://guidebook.dcma.mil/79/EVMPolicyletterMar-7-05.pdf), 7 Mar 05  [Defense Acquisition Guide](https://acc.dau.mil/CommunityBrowser.aspx?id=332991#4.3.3.4.1),  Paragraph 4.3.2.4.2,  Paragraph 4.3.3.4.1,  Paragraph 4.3.4.4.1,  Paragraph 11.3.4  [The Integrated Project Management Handbook,](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-AQ-DB&DocID=10992) Chapter III.A  [Program Managers Guide to Integrated Baseline Review Process](http://www.acq.osd.mil/pm/currentpolicy/IBR_Guide_April_2003.doc)  [Earned Value Management Implementation Guide (EVMIG),](http://guidebook.dcma.mil/79/EVMIG.doc) Part 2, Section 4  [Integrated Baseline Review](http://www.dau.mil/pubs/pm/pmpdf01/so-bahr.pdf)  [DAU Risk Management Guide for DOD Acquisition](http://www.dau.mil/pubs/gdbks/risk_management.asp)  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [Life Cycle Risk Management (AFPAM 63-128)](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf)  **Sample Documents**  [Risk Management Plan Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880822&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [OC-ALC Risk Management Plan Sample](https://wwwmil.tinker.af.mil/AE/risk/Documents/SampleRMPlan.doc) | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| IBR Memorandum documenting findings and action item plan  Updated Risk Management Plan | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.47.1](#P2_47_1) | Accomplish Support Equipment (SE) Guidance Conference | Capability Development Document (CDD)  Supportability Key Performance Parameters  Product Support Strategy (ref. Life Cycle Management Plan)  Mission Assignment Decision  Source Of Repair Assignment Process / core / Candidate Depot Decision  Systems Engineering Plan (SEP)  System Performance Specification  Contract Award (EMD)  Contract Award (LRIP)  Contract Award (FRP) | | |
| **DESCRIPTION:** | | | | |
| Support Equipment must be considered and identified (developed if necessary) to support the product support strategy developed during a program's Engineering & Manufacturing Development (EMD) phase, which, is the time frame a program should consider for SE guidance to the contractor. An SE Guidance Conference is accomplished to: ensure the contractor appropriately relates SE to government contractual requirements, the system concept of operations (CONOPS) and maintenance concept are understood, and to ensure DOD guidance and policy for SE acquisition is understood and complied with. Moreover, the information shared and the dialogue established between the contractor and all government SE players, at a guidance conference, will greatly enhance the responsiveness to the end item user and reduce SE proliferation. When it makes economical and program sense, similar guidance efforts could be held for other logistics or program elements and should be considered for joint guidance conferences. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Participate in the Support Equipment Guidance Conference 2. Ensure the following Topics are included in the Guidance Conference Discussion. (not in priority order)  * Air Force (and other DOD & Joint Services, as applicable) program points of contact. * Program overview * Operations concept (CONOPS) overview * Maintenance concept overview * Training concept overview * Packaging, Handling ,Storage & Transportation perspective, as it relates to SE * Provisioning process and procedures for SE * Data requirements documentation SE recommendation data (SERD or equivalent):   + Formats (provide samples as required)   + Contract performance requirements (delivery schedule)   + Deliverable median(s)   + Receiving organizations and number of copies   + Government review and approval process   + Calibration requirements, Air Force Metrology Calibration (AFMETCAL) * Procedures for obtaining Government Furnished Property (GFP-MAT). * Criteria for coding GFP and Contractor Furnished Equipment (CFE) * SE delivery means and requirements * MIL-HBK-300, or equivalent, use by contractor * Government screening of recommended SE * Classification and categories of SE * Technical manuals for SE * Procedures for obtaining Air Force publications. * Support Equipment Plan (if applicable) * Other Logistic elements, design interface, human systems integration for SE * Contractor's process for identifying and selection of SE supporting system design * Life cycle cost analysis / Cost Benefit Analysis (as applicable) * Instructions to interrogate various data banks and SE sources of information * Air Force (other Services) Preferred Items * Lists of standard and modified hand tools * Specific discussions on Automatic Test Equipment / Systems (ATE / ATS) process * Government preferred order of SE selection * Environment, Safety & Occupational Health (ESOH) and Alternative Fuels   3. Recommended Air Force and DOD Participants - NOTE: Include Other Joint Service organizations, as applicable, for a program chaired by SPM, Logistics Manager or PSI, as appropriate   * Program Office System Program Manager (SPM) * Program Office Logistics Manager * Program Office Support Equipment Manager (if applicable) * Air Logistics Center (ALC) system and SE specialized Support Equipment Manager(s), as applicable * Provisioning activity Product Support Integrator (PSI) / End Article Item Manager (EAIM) ALC) * Engineering and reliability representative (Program Office/PSI/EAIM ALC) * Packaging materials handling branch (SPM / EAIM ALC), as applicable * Equipment allowance specialist (ALC) * AFMETCAL representative * Lead command, using command(s) (inclusive of Air Education & Training Command (AETC), as applicable). * Technical Repair Center (TRC) maintenance representative, as applicable * HQ AFMC equipment management representative, as applicable. * DOD Cataloging and Standardization representative | | | [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management  [AFPD 63/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life Cycle Management  [DOD ATS Executive Directorate Home Page](http://www.acq.osd.mil/ats/) [DODD 5000.01](http://www.dtic.mil/whs/directives/corres/pdf/500001p.pdf) The Defense Acquisition System  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [2009 ATS Master Plan](http://www.acq.osd.mil/ats/2009_DoD_ATS_Master_Plan.pdf) [DOD ATS Selection Guide (2009)](http://www.acq.osd.mil/ats/DoD_ATS_Selection_Process_Guide_-_2009.pdf)  [Joint ATS MOA (July 2004)](http://www.acq.osd.mil/ats/2004_Joint_ATS_MOA.pdf)  [AFMCI 23-104](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-104.pdf) Functions and Responsibilities of the Equipment Specialist During Provisioning  [AFMCI 23-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-101.pdf) AF Provisioning Instruction  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Material Management  [Executive Order 13423](http://www.ofee.gov/eo/eo13423_main.asp)  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) pages 28 & 70  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SERD Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880831&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Updates to System Engineering Plan (SEP)  Clear understanding of Support Equipment process (government and prime contractor) schedules and milestones to support Test Program, RAA, IOC, FOC, for all levels of maintenance  Inputs to Support Equipment Plan (if stand alone Plan is developed)  Inputs/updates to LCMP  Contractual inputs/changes, as required to address SE acquisition  Minutes of SE Guidance Conference  Identification of SE candidates  Establish specific SE points of contact for contractor and government  Tailor Support Equipment Recommendation Data (SERD), if required | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.47.2](#P2_47_2) | Provide Logistics Support During the Deficiency Reporting (DR) Process | Test Readiness Certification  Contract  Identification of Deficiency | |
| **DESCRIPTION:** | | | |
| A Product Quality Deficiency Report (PQDR) - also called "DR", but with broader application than quality - is the DOD-wide process to record, submit and transmit deficiency data on materiel which poses (or is expected to pose) a mission impact. "Materiel" includes software and hardware products from Air Force Materiel Command or Space Command. PQDRs are submitted on the SF 368 or equivalent format, and typically through the Joint Deficiency Reporting System (JDRS).  Category I Deficiency - Category I deficiencies are those which may cause death, severe injury, or severe occupational illness; may cause loss or major damage to a weapon system; critically restricts the combat readiness capabilities of the using organization; cause or can cause a production line stoppage.  Category II Deficiency - Category II deficiencies t impede or constrain successful mission accomplishment but do not meet Category I criteria). They may also be conditions that improve a system’s operational effectiveness or suitability.  Other categories of deficiencies are contained in T.O. 00-35D-54.  This checklist is not all inclusive for the DR process during various phases of an acquisition and sustainment program but is meant to focus upon DR tasks a logistics manager would be involved in. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. During organization stand up:    * Take the appropriate framework of courses from the Deficiency Reporting, Investigation & Resolution (DRI&R) Training Program Community of Practice    * Through HQ AFMC/A4UE (DSN 787-5578) create your JDRS unit and obtain a DOD Address Accession Code (DODACC)    * Obtain a JDRS account through <https://jdrs.mil> 2. Understand T.O. 00-35D-54 and the local DR process 3. Become a participating member of the review team. 4. Review proposed DR for supportability and human related considerations and impacts. 5. Initiate actions to ensure supportability considerations are implemented as required. (See 2.47.3 CCB Checklist if required) 6. Follow local exhibit management, storage and processing procedures. 7. Make appropriate changes to system documentation i.e.;  * Technical Orders * Spares * Support Equipment * Calibration  1. If Intelligence sensitive program ensure Intelligence is involved | | [TO 00-35D-54](https://www.my.af.mil/TOV3/USAF_TECHPUBS/ETOS/00-35D-54-WA-1/00-35D-54_1OCT09.PDF) USAF Deficiency Reporting, Investigation, and Resolution  [MIL-HDBK-61A](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=202239) Configuration Management Guidance  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [ANSI/EIA 649A](http://www.geia.org/) For Fee Service  [Joint Deficiency Reporting System (JDRS)](http://www.jdrs.mil/links.html)  [DRI&R Training Program Community of Practice](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=OO-LG-MC-78)  [SF 368](http://contacts.gsa.gov/webforms.nsf/0/065E54262AA6A05885256D3A004CBA55/$file/sf368_06_07.pdf) Product Quality Deficiency Report  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | |
| DR Disposition  Identify supportability trends | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.47.3](#P2_47_3) | Participate in the Configuration Control Boards (CCB) | Identification of Deficiency  Design Change(s) (Hardware/Software/Firmware/Interface)  Technology Insertion | |
| **DESCRIPTION:** | | | |
| The purpose of CCB is to assist in planning for and implementing effective DOD configuration management activities and practices during all life cycle phases of defense systems and configuration items. It supports acquisition based on performance specifications, and the use of industry standards and methods to the greatest practicable extent. Activities and practices include:  Configuration Identification  Configuration Control  Configuration Status Accounting  Configuration Verification and Audit  Data Management | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Understand MIL-HDBK-61A, local and contractor CCB process. 2. Become a participating member of the CCB team. 3. Review proposed changes for consideration and impacts to:    1. Supportability (Product Support Elements)    2. Humans (HSI domains and integration)    3. DOTMLPF 4. Initiate actions to ensure supportability considerations are implemented as required 5. Follow local exhibit management, storage and processing procedures for changes 6. Make appropriate changes to system documentation i.e.; 7. Technical data (Drawings, TO, Data, etc.) 8. Spares 9. Support Equipment 10. Calibration | | [MIL-HDBK-61A](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=202239) Configuration Management Guidance  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [ANSI/EIA 649A](http://www.geia.org/)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [AFI 63-131](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-131.pdf) Modification Program Management  [AF Form 3525](http://www.e-publishing.af.mil/shared/media/epubs/af3525.xfd) CCB Modification Requirements and Approval Document  [AFMC Form 518](http://www.e-publishing.af.mil/shared/media/epubs/afmc518.xfd) Configuration Control Board Directive | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | |
| Identify supportability Issues  Verified changes incorporated in all affected items, documents  Status accounting data base appropriate to each phase  Configuration Management-competent contractor base  Configuration Management process performance measured & continuously improved  Lesson learned  CCB Recommendations and Disposition | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [2.47.4](#P2_47_4) | Accomplish Spares Provisioning Guidance Conference | Spares acquisition CLIN on contract | |
| **DESCRIPTION:** | | | |
| During this conference, the contractor(s) is alerted of the provisioning requirements for the production contract. Sufficient details on the provisioning documentation and data submission media and procedures will be provided so that the contractor(s) can provide realistic responses to the RFP or RFQ. This communication between the Air Force and the contractor(s) can provide the Contracting Office with topics to negotiate during the production contract negotiations. This provides a responsive and effective provisioning effort. The guidance conference provides an opportunity for explanation of the current logistics concept or plan applicable to the system/end article under contract as well as the techniques and methods used by the Air Force in requirements determinations. This conference should result in a mutual understanding, and reduce some of the more crucial problems inherent in provisioning, such as:  Improperly prepared Provisioning Technical Documentation (PTD).  Delinquent submission of PTD.  Inadequate/omitted Supplemental Data for Provisioning (SDFP).  Incomplete or invalid recommendations by the contractor.  Late scheduling of the provisioning conference and the resulting delivery of the initial support. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Establish a firm date and location with the contractor or prospective contractor(s). 2. Prepare and distribute, on a timely basis, the conference notification, AFMC Form 771. If sufficient time is not available to insure delivery of the conference notification by mail, the notification will be issued by message. 3. Develop agenda and furnish a copy with each AFMC Form 771 distributed. 4. Prepare or review tentative milestone dates for the provisioning actions. 5. Obtain qualified personnel for detailed discussions such as; Engineers, Equipment Specialist, Item Manager, Production Manager, Packaging, Using Command and DLA representative. 6. Obtain a copy of the Initial Provisioning Performance Specification (IPPS) with attachments and applicable programming checklists available for the conference. 7. Hold a closed Air Force familiarization meeting before conducting the conference to: 8. Review proposed agenda for the conference. 9. Resolve any difference of opinion. 10. Establish or review the rules of conduct to be in effect during the conference. 11. Recognize and resolve any questions/discussions that relate solely to internal Air Force affairs so as to avoid undue embarrassment. 12. Achieve an Air Force position. 13. Meeting chairperson may invite other government agencies such as DLA or have a separate government only meeting. 14. Review the maintenance and support concept strategies. 15. Request contractor to hold a briefing on the system/end article on contract. The briefing should generally include:     1. Design/maintainability/reliability.     2. Operation requirements.     3. Equipment capabilities.     4. Organizational structure in relation to manufacture, delivery, and logistics support.     5. Tour of manufacturer's area if conference is held at the contractor's facility.     6. Contractor(s) proposed Provisioning Performance Schedule (PPS). 16. Government agrees to PPS. | | [AFMCI 23-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-101.pdf) Air Force Provisioning Instruction, chapter 6.2  [AFMC Form 771](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-101.pdf) Conference Notification | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | |
| Approved Provisioning Performance Schedule | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.49](#P2_49) | Baseline Product Support Strategy in LCMP | Capabilities Development Document (CDD)  System Performance Specification  Validated Systems Support & Maintenance Objective & Requirements  Systems Engineering Plan (SEP)  Test and Evaluation Master Plan (TEMP)  Integrated Baseline Review (IBR)  Acquisition Strategy (AS)  Acquisition Program Baseline (APB)  Affordability Assessment  Industrial Capabilities, Cooperative Opportunities  Core Logistics Analysis/Source of Repair Analysis, & Competition Analysis for Depot-Level Maintenance >$3M  Life Cycle Management Plan (LCMP)  Minutes from the System Functional Review (SFR) and Critical Design Review (CDR)  Updated Cost Analysis Requirements Description (CARD) | | |
| **DESCRIPTION:** | | | | |
| A Life Cycle Management Plan (LCMP) is a comprehensive document that consolidates the weapon system life cycle acquisition management and product support strategies from materiel solution analysis through reclamation/disposal. It is a document that must be maintained to remain compliant with revised/new DOD policy and statutory requirements. It represents a corporate AF position on how to best execute and manage a specific program and requires participation from all program stakeholders in its development and update. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensure points from checklist 2.29 are updated 2. Review the CDD for duration of support, sustainment planning, and any overarching changes in DOTMLPF. Ensure consideration of the proposed target audience (user). This includes the cognitive, physical and sensory abilities i.e., capabilities and limitations of the operators, maintainers, and support personnel that are expected to be in place at the time the system is fielded 3. Review the Systems Engineering Plan for product support strategy 4. Ensure the HSI process is used to support generation of a robust plan that considers all human-related domains in an integrated manner. It must be addressed throughout the life cycle, and must be consistently integrated into SE implementation to balance total system performance (hardware, software, and human), and affordability. 5. Review the product support strategy for: 6. Improvements on how the program addresses the support and fielding requirements necessary to meet readiness and performance objectives, lower total ownership cost, reduce risks, and avoid harm to the environment and human health (2.3.12) 7. Contracting approach for product support throughout the system life-cycle (see 5.3.1 of the DAU Guidebook for more detail) 8. Total Life Cycle Systems Management (TLCSM) concepts found in the product support strategy for:    1. Supportability, life cycle costs, performance, and schedule comparable in making program decisions    2. Planning for operations & support and the estimation of total ownership costs    3. System effectiveness and any improvements to life cycle product affordability 9. Identify anticipated sustainment requirements to the Centralized Asset Management (CAM) office (AFMC/A4F Workflow). For AFSPC, ANG and AFRC sustainment requirements also contact the respective organization. If program is within 2-3 years of needing 3400 sustainment funding, ensure planning for budget input is accomplished. See Task 5.25 10. Review development of Performance Based Logistics (PBL) Business Case Analysis (BCA) to determine relative cost vs. benefits of different support strategies, impact and value of performance/cost/schedule/sustainment trade-offs, and data required to support and justify the PBL strategy 11. Ensure support concepts satisfy user specified requirements for sustaining support performance at the lowest possible life cycle cost for each evolutionary increment of capability to be delivered to the user including: 12. Review applicable operational effectiveness analyses to ensure support concepts meet warfighter-specified levels of combat and peacetime performance 13. Logistics support that sustains both short and long-term readiness 14. Minimal total life cycle cost to own and operate (i.e., minimal total ownership cost) 15. Maintenance concepts that optimize readiness while drawing upon both organic and industry sources 16. Data management and configuration management that facilitates cost-effective product support throughout the system life cycle 17. Support Equipment (peculiar and common) 18. Ensure Energy Efficiency and Alternate Fuels are considerations. Review Air Force strategic energy and infrastructure plan 19. Include performance outcomes and corresponding metrics for operational availability, operational reliability, Cost per Unit Usage, Logistics Footprint, and Logistics Response Time 20. Given the operational environment and combatant commander availability requirements, define the logistics reliability targets and the corresponding sustainment infrastructure 21. Review maintainability for comprehensive identification of both projected maintenance strategy, including diagnostics, prognostics, maintenance duration targets, and similar measures 22. Review the Total System Product Support Package for product support concepts that are based on reliability and maintainability of the system including manpower and personnel, & Training Systems / Computer based training. 23. Review the collection, analysis, and evaluation of system performance and maintenance performance data to determine the need for and prescribe changes to the system configuration, maintenance support structure, and maintenance resource requirements. 24. Review identification of potential organic depot-level sources of maintenance alternative and refine logistics support considerations correspondent with the evolutionary acquisition strategy (when employed). 25. Ensure National Environmental Policy Act (NEPA), facilities SRM and MILCON funding requirements are addressed lead time away as applicable. | | | [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management Sec 2.11  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [Integrated Defense Acquisition Technology and Logistics Life Cycle Mgmt Framework ("Wall Chart")](http://akss.dau.mil/ifc/)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-107.pdf) Acquisition & Sustainment Life Cycle Management  [Cost as an Independent Variable (CAIV)](https://acc.dau.mil/CommunityBrowser.aspx?id=314768#3.2.4) (DAG - 3.2.4)  [Configuration Mgmt](https://acc.dau.mil/CommunityBrowser.aspx?id=332970) (DAG - 4.2.3.1.6)  [Configuration Mgmt 2](https://acc.dau.mil/CommunityBrowser.aspx?id=328733) (DAG - 5.1.7)  [Data Management](https://acc.dau.mil/CommunityBrowser.aspx?id=314756) (DAG - 2.3.14)  [Data Management in Engineering](https://acc.dau.mil/CommunityBrowser.aspx?id=332971) (DAG - 4.2.3.1.7)  [Develop Performance Outcomes](https://acc.dau.mil/CommunityBrowser.aspx?id=328725) (DAG - 5.0)  [DODD 5000.01](http://akss.dau.mil/dag/DoD5001/Enclosures_1.1.asp#E1.17) The Defense Acquisition System E1.1.17 - Performance-Based Logistics  [MOSA & Interoperability](https://acc.dau.mil/CommunityBrowser.aspx?id=328740) (DAG - 5.3.1)  [PBL: A PM's Product Support Guide](https://acc.dau.mil/CommunityBrowser.aspx?id=32536) (All)  [Product Support](https://acc.dau.mil/CommunityBrowser.aspx?id=328727#5.1.1.1) (DAG - 5.1.1.1)  [Product Support Plan for Information Technology Guide](http://public.gunter.af.mil/applications/sep/documents/SWGD032.doc) (SWGDO32)  [10 USC 2440](http://www.gpoaccess.gov/uscode/index.html)  [Technology Readiness Assessment Deskbook (TRA)](http://www.dod.mil/ddre/doc/DoD_TRA_July_2009_Read_Version.pdf) (2.3)  [Product Support Package](https://acc.dau.mil/CommunityBrowser.aspx?id=328727) (DAG – 5.1.1)  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See checklists D-2, D-3, D-4, D-6, D-9, D-10, D-16, E-1  [Air Force Strategic Energy and Infrastructure Plan](http://www.afcesa.af.mil/shared/media/document/AFD-081029-038.pdf)  [AFH 32-1084](http://www.e-publishing.af.mil/shared/media/epubs/AFH32-1084.pdf) Facility Requirements  [Logistics Requirements Determination Process](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11)  [Centralized Asset Management (CAM) CoP](https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=23211)  [42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)  [40 CFR 1500](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=801c8988a5cb85fd75f3c1d7452dcaf1&rgn=div5&view=text&node=40:33.0.3.3.1&idno=40)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6.A  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf)  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [CARD Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880725&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE) | Technology Development |
| **EXIT CRITERIA:** | | | | |
| Product Support Strategy  Product Support Plan  Life Cycle Management Plan  Programmatic Environmental Safety and Health Evaluation (PESHE) | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.50](#P2_50) | Evaluate Contractor Delivered Data (Including COTS and CDRLs) | Contract Award  CDRLs on contract  Test and Evaluation Management Plan (TEMP)  Support & Maintenance Concept & Technologies  Technology Development Strategy (TDS)  Set Product Support Strategy | | |
| **DESCRIPTION:** | | | | |
| Provides examples and guidance to evaluate data delivered under the Contractor Data Requirements List placed on contract for logistical support. A formal, system-level review conducted to ensure that system requirements have been completely and properly identified and that a mutual understanding between the government and contractor exists. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Coordinate with lead IPT and contractor(s) regarding supportability to ensure CDRLs meet requirements. 2. Determine COTS requirements 3. Verify contractor meets CDRL deliverables. Some examples of types of CDRLs are:  * DI-CMAN-81254A, Request for Nomenclature * DI-SESS-81000B, Product Drawings and Associated Lists * DI-MGMT-80004, Management Plan * DI-ILSS-81089, Training Facilities Report * DI-ILSS-81070, Training Program Development & Management Plan * DI-ALSS-81530, Logistics Management Information (LMI) Summaries SERD Standard List (tailored for both common hand tools and support equipment) * DI-ILSS-80872, Training Materials * TMCR, TM-86-01, Technical Manuals * DI-MISC-81454A Automated Computer Program Identification Number Data and Control Record * DI-ILSS-80134A, Proposed Spare Parts List * Review applicable documentation against product support strategy such Life Cycle Management Plan, Validate Systems Support & Maintenance Objectives & Requirements, SEP, etc.)   NOTE: The DIDs listed above are only samples of what a program may need to be logistically supportable.   1. Prepare for Milestone B or C decision as appropriate 2. Update Acquisition Plan for Source Selection | | | [Systems Engineering Fundamentals](https://afkm.wpafb.af.mil/ASPs/DocMan/DocDisplayOnly.asp?Filter=OO-EN-DB&DocID=28782) Entire document provides an overall on Systems Engineering. See Chapter 19 for Contracting information.  [MIL-HDBK-502](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=201462) DOD Handbook Acquisition Logistics Entire document is helpful. See Sections 5, 6, 7, and 8 for related subject information.  [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=333007) (4.4.2)  [Independent Logistics Assessment (ILA) Handbook](https://acc.dau.mil/GetAttachment.aspx?id=32430&pname=file&aid=6132) See Checklists D-9, D-10, D-11, D-12, D-16,  [Acquisition Streamlining and Standardization Information System Tool](http://assist.daps.dla.mil/quicksearch/) ASSIST Quick Search - Enter “DI” in the [Document ID] block and click [Submit] button, to generate a list of over 1100 DIDs  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM) | Technology Development  Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | | |
| Demonstrated Product Support Capability  Updated Acquisition Contract | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.50.1](#P2_50_1) | Manage Technical Order Acquisition Program | Capability Development Document (CDD)  Maintenance Strategy  Product Support Strategy  Technical Manual Contract Requirements (TMCR) Document, TM-86-01 | | |
| **DESCRIPTION:** | | | | |
| Technical order requirements must be progressively monitored and updated to ensure completion and delivery concurrent with the equipment or hardware. The organization or individual assigned TO acquisition responsibility is called the Technical Order Manager. This checklist gives instruction on how to manage a technical order acquisition program from development of the strategy to sustainment of the formal manuals. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Generate a Technical Order Management Plan (TOMP) as soon as feasible. 2. Once a TO acquisition program is established and a contract awarded, begin managing the activities involved with delivery of preliminary and formal technical manuals. The TO Manager and Contractor will:    1. Perform TO Guidance Conference    2. Number and index TOs as required. See TO Numbering & Indexing Process Flow.    3. Perform In Process Reviews (IPR) as required by the contract.    4. Monitor contractor TO certification process.    5. Contractor will update preliminary TOs as they are reviewed and certified.    6. Contractor will submit proposed Commercial off the shelf (COTS) manuals for government evaluation and acceptance as required.    7. Contractor will deliver certified, preliminary TOs IAW the TMCR. 3. Verification planning is a critical step in the acquisition process of preparing and delivering adequate and accurate TOs that meet the needs of the users. Verification planning decisions will be documented in a TO Verification Plan (TOVP) prepared by the TO manager. 4. The TO Manager will ensure verification is performed and documented IAW TO 00-5-3 and the TOVP. Contractor support will be IAW TM-86-01. 5. The TO Manager will perform pre-pub reviews as required IAW TO 00-5-3 and TMCR. 6. Contractor will deliver formal TOs IAW the TMCR 7. Contractor will develop and deliver formal TO updates if required by the TMCR. 8. Budget (POM) for TO sustainment 2 years prior to transition to the ALC (if applicable).   **Sample Documents:**  [TMCR Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3880839&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | | [Generic TOMP](https://techdata.wpafb.af.mil/toprac/appdx-b.doc)  TO 00-5-3 Air Force Technical Manual Acquisition Procedures  [Develop TO strategy](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=466413)  TO 00-5-18 AF Technical Order Numbering System  [Enhanced Technical Information Management System (ETIMS)](https://www.my.af.mil/gcss-af61/ETIMS/index.jsp)  ETIMS is the prescribed method of accessing the 00-5 series of TOs. To request access, users should send an e-mail to [af.todo1@eglin.af.mil](mailto:af.todo1@eglin.af.mil) which identifies their full name, AF portal ID and the TOs or TO Series to which access is required  [Technical Order Contract Requirements](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=105442)  [TO Delivery Requirements](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=105476)  [AFI 61-204](http://www.e-publishing.af.mil/shared/media/epubs/AFI61-204.pdf) Disseminating Scientific and Technical Information  [TM 86-01](https://techdata.wpafb.af.mil/toprac/working.htm) Air Force Technical Manual Contract Requirements  [Manage TO Acquisition Program](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=42661)  [TO Verification Planning](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=104794)  [TO Verification](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=105454)  [Generic TOVP](https://techdata.wpafb.af.mil/toprac/appdx-c.doc)  [MIL-PRF-32216](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=275451)  [TO Numbering & Indexing Process Flow](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3922823&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [AFI 65-601 Vol. 1](http://www.e-publishing.af.mil/shared/media/epubs/AFI65-601V1.pdf) Budget Guidance and Procedures | Technology Development  Engineering & Manufacturing Development  Production & Deployment |
| **EXIT CRITERIA:** | | | | |
| Delivery of formal TOs.  Transition TOs to ALC based on Program requirements / schedule | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.50.4](#P2_50_4) | Establish and Manage Training Systems | Acquisition Strategy approved  Training System Requirements Analysis (TSRA) completed  Life Cycle Management Plan (LCMP) completed  Systems Engineering Plan (SEP) completed  Contract awarded | | |
| DESCRIPTION: | | | | |
| Responsible for developing and sustaining aircraft training systems to train aircrew and maintenance students. The program uses the four Training System Requirements Analysis Reports to identify and assign the mandatory training tasks to both the maintenance and aircrew training devices. The devices and training materials are built, tested, approved and delivered to the government. After delivery, the devices and training materials are maintained using contractor logistics support and updated to keep concurrent with aircraft modifications. The following checklist represents a standardized training system program tasks. Depending on the scope of the program, these tasks maybe removed if not applicable. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Design of training devices meets contractual specification requirements via the following milestones:    1. Systems Requirements Review    2. Preliminary Design Review    3. Critical Design Review 2. Consider HSI implications 3. Training devices are tested to ensure compliance with contractual specifications. Two phases of testing include:    1. Government In-plant testing    2. On-site Acceptance testing    3. Final device certification 4. Training Devices are sustained via the following:    1. Contractor Logistics Support    2. Training System Support Center 5. Ensure all facilities requirements are identified and tracked to include any facility modifications and National Environmental Policy Act (NEPA) actions 6. Ensure all manpower and personnel requirements are identified and planned for. REF checklist 2.10.1 7. Ensure the follow-on Services Contract includes appropriate considerations for training system sustainment. Life of system CLS is mandatory for all training devices unless HQ AF/A4/7 has approved a waiver.   Note: If a concurrent training device is not delivered prior to the first production aircraft a waiver is required to be documented in the Milestone Decision Review prior to Milestone C | | | [AFI 36-2251](http://www.e-publishing.af.mil/shared/media/epubs/AFI36-2251.pdf) Management of Air Force Training Systems  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management Para 3.94.12  [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management Sec 2.11  [Performance Based Logistics CoP](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-LG-PB-L1)  [42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)  [40 CFR 1500](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=801c8988a5cb85fd75f3c1d7452dcaf1&rgn=div5&view=text&node=40:33.0.3.3.1&idno=40)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development  Engineering & Manufacturing Development  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Devices and training materials delivered and used for training  Annual sustainment contract options set up  Annual training and instruction contract options set up  Training System Support Center tracking device baselines and also incorporating minor modifications into devices  Devices maintaining concurrency with aircraft  Update to Life Cycle Management Plan | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.51](#P2_51) | Identify and Plan Supportability Requirements for the TEMP | Test and Evaluation Strategy  Live Fire Test Strategy  Initial Capabilities Document (ICD)  (Draft) Capability Development Document (CDD)  (Draft) System Engineering Plan (SEP)  Support & Maintenance Concept & Technologies | | |
| **DESCRIPTION:** | | | | |
| A comprehensive plan of developmental and operational testing to determine system suitability and readiness for delivery to operational users. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensure sustainment KPP/KSAs are fully tested, analyzed, and assessed within the TEMP to meet acceptance criteria. 2. Ensure product support strategy and CONOPs are assessed for operational safety, suitability and effectiveness. 3. Ensure TEMP assesses product support readiness to include training for maintenance and operators. 4. Ensure TEMP assesses system logistics footprint. 5. Ensure TEMP assesses product support facility and infrastructure requirements. 6. Ensure TEMP assesses maintenance procedures, to include technical manual development and data availability. 7. Ensure TEMP assesses support equipment suitability (to include calibration requirements) and compatibility with system maintenance concept 8. Ensure TEMP assesses on-equipment vs off-equipment maintenance tasks. 9. Ensure TEMP assesses system size and weight, permitting economical handling, loading, securing, transporting, and disassembling for shipment, to include handling hazardous materials. 10. Ensure TEMP includes the means to assess future logistics initiatives, due to cost reduction, technology developments, etc. 11. Ensure TEMP includes Intelligence support concept and technologies. 12. Ensure TEMP includes appropriate considerations for Environment, Safety & Occupational Health (ESOH), the National Environmental Policy Act (NEPA), and addresses chemicals of regulatory interest. 13. Ensure TEMP includes plans for site cleanup and asset disposition following test. 14. Ensure TEMP includes specific identified or unique HSI considerations. 15. Ensure TEMP assesses design interface. 16. Ensure TEMP assesses supply support. 17. Ensure TEMP assesses maintenance planning and management 18. Ensure TEMP assesses manpower and personnel. 19. Ensure TEMP assesses computer resources. 20. Ensure TEMP assesses sustaining/system engineering. 21. Ensure TEMP assesses protection of critical program information and anti-tamper provisions. | | | [Defense Acquisition Guidebook Chapter 9](https://acc.dau.mil/CommunityBrowser.aspx?id=315920)  [AFPD 99-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD99-1.pdf) Test and Evaluation Process  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf) Paragraphs: 1.5.1, 2.3.3, 2.3.5, 4.6, 5.4.1, 5.5.3)  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6.A  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)  [40 CFR 1500](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=801c8988a5cb85fd75f3c1d7452dcaf1&rgn=div5&view=text&node=40:33.0.3.3.1&idno=40)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE) | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Approved/Updated TEMP  Updated Test and Evaluation Strategy  Updated Live Fire Test Strategy  Updated Initial Capabilities Document (ICD)  Updated Capability Development Document (CDD)  Updated System Engineering Plan (SEP) (including HSI, if not identified as a separate plan)  Updated Product Support Strategy in the Life Cycle Management Plan  Updated Support & Maintenance Concept & Technologies | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.54](#P2_54) | Participate in System Requirements Review (SRR) (System Specification) | Initial Capabilities Document (ICD)  Draft Capability Development Document (CDD)  Analysis of Alternatives (AoA)  Test and Evaluation Strategy  System Engineering Plan (SEP)  Support & Maintenance Concept & Technologies  Technology Development Strategy (TDS)  Life Cycle Management Plan (LCMP)  Draft System Specification  SRR (Demo) Minutes, if applicable  Threat assessment baseline from Intelligence | | |
| **DESCRIPTION:** | | | | |
| A formal, system-level review conducted to ensure that system requirements have been completely and properly identified and that a mutual understanding between the government and contractor exists. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Coordinate with lead engineer regarding supportability requirements 2. Review applicable documentation against product support strategy such as system maintenance concept, significant system design criteria (reliability, maintainability, logistics requirements, System Lifecycle Integrity Management (SLIM) requirements, layout drawings, conceptual design drawings, selected supplier components data, etc.) 3. Ensure product support requirements satisfy the ICD or draft CDD. (For Intelligence Reference Appendix A, Checklist 1.04) 4. Ensure that the system supportability requirements are consistent with the preferred system solution 5. Understand the approach and methods planned for use in arriving at a balanced set of requirements to include product support (manpower, personnel, training, reliability, supportability, life cycle cost analysis, etc.). 6. Ensure Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient & occupational) and Alternate Fuels are considered. 7. Ensure HSI implications, constraints and issues are adequately addressed by the requirements for the planned operational and sustainment concepts 8. Ensure provisioning concepts and strategies are compatible with maintenance concept 9. Ensure contractual requirements levy the need for detailed facility requirements data 10. Participate in site survey development and input into the Facility project books 11. Provides an overview of government and contractor data rights for the system to include what key technical information and data will be developed during this phase 12. Review the technical approach reflect the capabilities, concepts of operation and support, and required attributes 13. Understanding requirements driving the preferred system concept, including: potential statutory and regulatory requirements, supportability requirements, training requirements, life-cycle cost requirements, and other design considerations 14. Review applicable operational effectiveness analyses to understand the linkage between overall operational effectiveness, weapon system performance, and execution of an effective product support strategy 15. Establish a consistent set of objectives for readiness and logistics parameters 16. Conduct trade-offs among design, support concepts, and support resource requirements. 17. Participate in market research for supportability attributes of potential commercial products; assess impact of deployment, evaluate support alternatives 18. Ensure logistics decisions and risk identified and are incorporated into the minutes   Note: Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required. | | | [Systems Engineering Fundamentals](https://afkm.wpafb.af.mil/ASPs/DocMan/DocDisplayOnly.asp?Filter=OO-EN-DB&DocID=28782) (Chap 11 page 104)  [System Requirements Review Procedures](http://public.gunter.af.mil/applications/sep/documents/RDPR011.DOC)  [MIL-HDBK-502](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=201462) DOD Handbook Acquisition Logistics  [Navy Acquisition Guide](http://nawctsd.navair.navy.mil/Resources/Library/Acqguide/Acqguide.htm)  [ISO 15288](http://www.15288.com/) (for fee service)  [GEIA-STD-0007 A](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=7496807&Function=ViewDocument&FolderID=OO-LG-MC-39-27-7-1&Filter=OO-LG-MC-39) Logistics Product Data  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Material Management  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf), Air Installation Compatibility Use Zone  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 17-20  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 28  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  **Sample Documents:**  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Borer Security Air Operations Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development |
| **EXIT CRITERIA:** | | | | |
| Updated Capability Development Document (CDD)  Updated Analysis of Alternatives (AoA)  Updated System Engineering Plan (SEP)  Updated Life Cycle Management Plan (LCMP)  Test and Evaluation Management Plan (TEMP) or equivalent  Technology Readiness Assessment (TRA)  System Performance Specification  SRR (Sys Func Spec) Minutes | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | | |
| [2.58](#P2_58) | Participate in System Functional Review (SFR) | Capabilities Development Document (CDD)  Acquisition Program Baseline (APB)  Life Cycle Management Plan (LCMP)  Test & Evaluation Master Plan (TEMP)  System Engineering Plan (SEP)  Validated System Support and Maintenance Objective Requirements  Draft System Performance Specification  System Functional Specification  System Verification Plan  Functional Analysis and Allocation of Requirements  Technical Performance Measurement data and analysis  Updated threat assessment baseline from Intelligence | | | |
| **DESCRIPTION:** | | | | | |
| A formal review of the conceptual design of the system to establish its capacity to satisfy requirements. It establishes the functional baseline. | | | | | |
| **CHECKLIST SUBTASKS:** | | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** | |
| 1. Participate in refining the system functional baseline for supportability 2. Review applicable documentation against product support strategy such as system maintenance concept, significant system design criteria (reliability, maintainability, logistics requirements, layout drawings, conceptual design drawings, selected supplier components data, etc.) 3. Ensure provisioning concepts and strategies are compatible with maintenance concept 4. Understanding the linkage between overall operational effectiveness, weapon system performance, and execution of an effective product support strategy 5. Ensure intelligence interests are addressed. Reference Appendix A, Checklist 1.04 6. Ensure Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient & occupational) and Alternate Fuels are considered. 7. Ensure Human Systems Integration implications, constraints & issues are addressed and included in the design sufficient to ensure that those tasks and functions allocated to humans actually match the functional capabilities of the operators, maintainers and sustainers with the total system to optimize system effectiveness 8. Conduct trade-offs among design, support concepts, and support resource requirements. 9. Ensure the system functional requirements satisfy the Capability Development Document for product support 10. Ensure adequate product support processes and metrics are in place for the program to succeed 11. Identify product support risks known and manageable for development 12. Ensure the Cost Analysis Requirements Description is consistent with the approved functional baseline for product support 13. Participate the system functional baseline been established to enable proper configuration management for product support   Note: Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required  **Sample Documents:**  [CARD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880725&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | | [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6.A  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=315920) (4.3.4.4.2.2)  [Systems Engineering Fundamentals](https://afkm.wpafb.af.mil/ASPs/DocMan/DocDisplayOnly.asp?Filter=OO-EN-DB&DocID=28782)  [System Requirements Review Procedures](https://ossg.gunter.af.mil/applications/sep/documents/RDPR011.DOC)  [MIL-HDBK-502](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=201462) DOD Handbook Acquisition Logistics (All)  [MIL-HDBK-61A](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=202239) , Configuration Management Guidance (Tables 4.2-4.3)  [ASC/EN Guide: Technical Reviews/Audits for Aeronautical Weapon Systems Acquisition](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplay.asp?Filter=OO-EN-DB&DocID=267375)  [System Functional Review Procedure (Gunter)](https://ossg.gunter.af.mil/applications/sep/documents/RDPR013.DOC)  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [Navy Acquisition Guide](http://nawctsd.navair.navy.mil/Resources/Library/Acqguide/Acqguide.htm)  [ISO 15288](http://www.15288.com/) (for fee service)  [GEIA-STD-0007 A](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=7496807&Function=ViewDocument&FolderID=OO-LG-MC-39-27-7-1&Filter=OO-LG-MC-39) Logistics Product Data  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 17-20  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 28  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-11  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf), Air Installation Compatible Use Zones  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14) | | Technology Development |
| **EXIT CRITERIA:** | | | | | |
| Updated Technical Performance Measurement Data  Updated Life Cycle Management Plan (LCMP)  Updated System Engineering Plan  System Functional Baseline  Updated Life Cycle Cost Analysis  Updated Test and Evaluation Management Plan, or equivalent  Updated Acquisition Program Baseline  Update Cost Analysis Requirement Description (CARD)  Supplier data describing specific components  Updated documentation (technical orders; commercial manuals; preliminary materials, parts, and processes; analyses; reports; trade studies; logistics support analysis data; etc.  SFR minutes | | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.59](#P2_59) | Participate in Preliminary Design Review (PDR) | Capabilities Development Document  Technical Performance Measurement Data  Life Cycle Management Plan (LCMP)  System Engineering Plan  System Performance Specification  System Allocated Baseline  Cost Analysis Requirements Description  Life Cycle Cost Analysis  Test and Evaluation Management Plan  Acquisition Program Baseline  Supplier data describing specific components  Equipment layout drawings and preliminary drawings (includes proprietary or restricted data)  Existing documentation (technical orders; commercial manuals; preliminary materials, parts, and processes; analyses; reports; trade studies; logistics support analysis data; etc.  Successful completion of all SRR action items  Applicable CDRLs  Updated threat assessment baseline from Intelligence | | |
| **DESCRIPTION:** | | | | |
| A formal review that confirms the preliminary design logically follows the System Functional Review findings and meets the requirements. It normally results in approval to begin detailed design. For complex systems, the program manager may conduct a PDR for each subsystem or configuration item, leading to an overall system PDR. When individual reviews have been conducted, the emphasis of the overall system PDR should focus on configuration item functional and physical interface design, as well as overall system design requirements. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Review progress of long-lead time support equipment items and Support Equipment Recommendation Data (SERD) procedures 2. Review the Reliability, Availability, Maintainability & Cost (RAM-C) to include support equipment items 3. Review calibration requirements 4. Describe technical manuals and data availability to include support equipment. 5. Verify compatibility of proposed support equipment with the system maintenance concept 6. Verify on-equipment vs. off-equipment maintenance task trade study results to include support equipment impacts 7. Review updated list of required support equipment 8. Review Level 1 engineering drawings for ease of conversion to higher levels 9. Review repair rate sources and prediction methods 10. Identify design changes that will permit a greater use of standard or preferred parts and evaluate the trade-offs 11. Review Program Parts Selection List and status of all non-standard parts identified 12. Determine if design meets contracts requirements governing size and weight to permit economical handling, loading, securing, transporting, and disassembly for shipment. Identify potential outsized and overweight items. Identify system/items defined as being hazardous and ensure compliance with hazardous materials regulations. 13. Review Transportability Analysis to determine that transportation conditions have been evaluated 14. Determine understanding of the background, purpose, requirements, and usage of Maintenance Data Collection, historical/status records and methods of providing maintenance, failure, reliability, maintainability data 15. Review plans for Work Unit Coding of the equipment 16. Review logistics and provisioning planning to insure full understanding of scope of requirements to include provisioning requirements, GFP usage, and spare parts, and support during installation, checkout, and test 17. Ensure Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient & occupational) and Alternate Fuels are considered. 18. Ensure Human Systems Integration implications, constraints & issues are addressed and included in the design sufficient to ensure that those tasks and functions allocated to humans actually match the functional capabilities of the operators, maintainers and sustainers with the total system to optimize system effectiveness 19. Review plans for maximum screening and usage of GFP, and extent plans have been implemented 20. Review status of the Technical Manual Publications Plan to include availability of technical manuals for validation and verification during DT&E testing 21. Evaluate the training system/simulator item development specifications and facilities / infrastructure impacts 22. Ensure logistics decisions and risk identified and are incorporated into the minutes 23. Ensure intelligence interests are addressed. Reference Appendix A, Checklist 1.04   Note: Review LogEA CONOPS for compliance with architecture – creation of Operational / System / Technical View document may be required. | | | [DOD Systems Engineering Fundamentals](https://afkm.wpafb.af.mil/ASPs/DocMan/DocDisplayOnly.asp?Filter=OO-EN-DB&DocID=28782)  [ASC/EN Guide: Technical Reviews/Audits for Aeronautical Weapon Systems Acquisition](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplay.asp?Filter=OO-EN-DB&DocID=267375)  Example: [SISP 1.0, Combined PDR/CDR](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplay.asp?Filter=OO-AQ-SP-11&DocID=498559)  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-11  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6.A  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf) Hazardous Material Management  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf), Air Installation Compatible Use Zones  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 17-20  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 28  **Sample Documents:**  [CARD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880725&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development  Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | | |
| Established system allocated baseline  Updated risk assessment for EMD  Updated Cost Analysis Requirements Description (CARD) based on the system allocated baseline  Updated program schedule including system and software critical path drivers  Updated Life Cycle Management Plan (LCMP)  Updated Test and Evaluation Management Plan (TEMP)  Updated System Engineering Plan (SEP)  Acceptance of CDRLS due at PDR  Requirements Traceability Matrix  PDR Minutes | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [2.62](#P2_62) | Prepare Documentation for Milestone B | Determination that MSD for MS B is required  Initial Capabilities Document  Capability Development Document | | |
| **DESCRIPTION:** | | | | |
| There are two types of decision points: milestone decisions and decision reviews. Each decision point results in a decision to initiate, continue, advance, or terminate a project or program work effort or phase. The review associated with each decision point typically addresses program progress and risk, affordability, program trade-offs, acquisition strategy updates, and the development of exit criteria for the next phase or effort. The Milestone Decision Authority approves the program structure, including the type and number of decision points, as part of the acquisition strategy. Milestone B initiates engineering & manufacturing development. Per 10 USC 2366A the MDA must provide a signed certification memorandum for record prior to Milestone B approval. There shall be only one Milestone B per program or evolutionary increment. Each increment of an evolutionary acquisition shall have its own Milestone B. Entrance into this phase depends on technology maturity (including software), approved requirements, and funding. Unless some other factor is overriding in its impact, the maturity of the technology shall determine the path to be followed. Programs that enter the acquisition process at Milestone B shall have an ICD that provides the context in which the capability was determined and approved, and a CDD that describes specific program requirements | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| Review and make inputs to applicable documents required by statute or regulation before milestone decision | | | [Milestone B Documentation](https://akss.dau.mil/dag/DoD5000.asp?view=framework)  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enc. 4 page 34  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AFPD 63/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life Cycle Management  [[10 USC 2366](http://www.gpoaccess.gov/uscode/index.html)](http://frwebgate3.access.gpo.gov/cgi-bin/TEXTgate.cgi?WAISdocID=1289769271+19+1+0&WAISaction=retrieve)  [Replaced System Sustainment Plan Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5241551&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) | Technology Development |
| **EXIT CRITERIA:** | | | | |
| Milestone decision approved  All proper supporting documentation put in the official files | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [3.09.1](#P3_09_1) | DLA Weapon System Support Program (WSSP) | | Milestone B Decision | |
| **DESCRIPTION:** | | | | |
| This checklist gives instructions on actions required to ensure DLA WSSP matters are included in weapon system support planning activities. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Ensure WSSP Focal (WSFP) point is assigned. 2. WSFP will nominate weapon system for Weapon System Designator Code (WSDC) assignment. 3. Load, Change, and Delete items by National Stock Number (NSN) into DLA WSSP as required. | | [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) USAF Supply Manual Volume 1 Part One Chapter 11 | | Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| DLA support is no longer needed for weapon system being supported / removed from service. | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [3.11.1](#P3_11_1) | Ensure data to support System Lifecycle Integrity Management (SLIM) is addressed | Capabilities Development Document (Maintenance Concept)  Maintenance Data Requirements  Systems Specifications  Depot Source of Repair (DSOR)  Technical Orders | | |
| **DESCRIPTION:** | | | | |
| SLIM is the integration of Weapon System Improvement Program (WSIP), Condition Based Maintenance (CBM+), Reliability Centered Maintenance (RCM), Aircraft Information Program (AIP), and Reliability, Availability and Maintainability (RAM) efforts. The purpose is to implement standardized engineering processes/tools associated with optimizing resources and increasing proactive system monitoring and performance assessment leading to product improvement throughout the system lifecycle. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Develop and update plans to monitor and assess systems performance    * Plan to collect, store and maintain usage, maintenance and sensor data    * Identify data access rights to assure/facilitate data management and analysis    * Identify and implement standardized diagnostics, prognostics and R&M tools    * Establish feedback processes to link operations and maintenance to engineering and Lifecycle management 2. Identify existing and planned system architecture to analyze and integrate Productivity Improvements e.g., WSIP, Military Flight Operations Quality Assurance (MFOQA), RAM, RCM and CBM+ efforts    * All algorithms, models, analyzes, test reports, metric control limits, etc must be treated as configuration controlled items and an impact assessment accomplished for every configuration change, maintenance change, or operational usage change.    * When feasible, implement the use of existing WSIP, RAM, CBM+, and business intelligence (BI) data systems. 3. Identify Influence resource allocation requirements To plan, program and budget for Productivity Improvements 4. Monitor design progress for implementing diagnostics, prognostics and continuous process improvement activities 5. Transition CBM+, RAM, WSIP, RCM/MSG-3, HVM, AIP, and MFOQA requirements into the Request for Proposal (RFP), Contracts Data Requirements List (CDRL), Performance Based Statement of Work (PBSOW), Source Selection criteria and evaluation factors, and cost evaluation factors for the LRIP, Interim Contractor Support (ICS), Performance Based Logistics (PBL), and FRP contracts of the acquisition effort. | | | [AF SLIM Guide](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=7976976&Function=ViewDocument&FolderID=OO-TR-AF-10-36&Filter=OO-TR-AF-10)  [DOD CBM+ Guidebook](http://www.acq.osd.mil/log/mpp/cbm+/CBM_DoD_Guidebook_May08.pdf)  [AFMCI 21-103](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI21-103.pdf) Reliability Centered Maintenance  [DOD RAM Guide](http://www.acq.osd.mil/sse/docs/RAM_Guide_080305.pdf)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)  [MIL-HDBK-515](https://assist.daps.dla.mil/docimages/A/0000/0021/2249/000000349694_000000166370_RAJNSXDSQJ.PDF?CFID=7270650&CFTOKEN=94653742&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Weapon System Integrity Guide (WSIG)  [MIL-STD-1530C](https://assist.daps.dla.mil/docimages/A/0000/0003/6952/000000486252_000000155043_MEBIYVSBNP.PDF?CFID=7269839&CFTOKEN=36834248&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Aircraft Structural Integrity Program (ASIP)  [AFI 63-1001](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1001.pdf) Aircraft Structural Integrity Program (ASIP)  [MIL-STD-3024](https://assist.daps.dla.mil/docimages/A/0000/0027/6036/000000608667_000000208445_QRZNBUJRNO.PDF?CFID=7270084&CFTOKEN=80100708&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Propulsion System Integrity Program (PSIP)  [MIL-STD-1798](https://assist.daps.dla.mil/docimages/A/0000/0007/1161/000004886413_000000216271_LSFWUBHFYR.PDF?CFID=7270306&CFTOKEN=23978293&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Mechanical Equipment and Subsystems Integrity Program (MECSIP)  [MIL-HDBK-87244](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=115812) Avionics/Electronics integrity Program (AVIP) Cancelled, Best Practice  [AFPD 63-1/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life Cycle Management  [AFI 90-1301](http://www.e-publishing.af.mil/shared/media/epubs/AFI90-1301.pdf) Implementing Military Flight Operations Quality Assurance (MFOQA)  [AFI 90-1301](http://www.e-publishing.af.mil/shared/media/epubs/AFI90-1301_AFMCSUP.pdf) Implementing Military Flight Operations Quality Assurance (MFOQA) AFMC Supplement  [AFI 63-1401](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1401.pdf) Aircraft Information Program  [AFH 63-1402](http://www.e-publishing.af.mil/shared/media/epubs/AFH63-1402.pdf), Aircraft Information Program  [AFH 63-1402](http://www.e-publishing.af.mil/shared/media/epubs/AFH63-1402_AMCSUP_I.pdf), Aircraft Information Program AFMC Supplement  [DODI 4151.22](http://www.acq.osd.mil/log/mrmp/dodi_415122.pdf) Condition Based Maintenance + (CBM+) for Materiel Maintenance  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering (Atch 6/7, Maintenance Engineering/Sustaining Engineering and Product & System Integrity)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM) | Engineering & Manufacturing Development  Production & Deployment |
| **EXIT CRITERIA:** | | | | |
| Designed Components for condition monitoring and state detection incorporated in the Systems Specifications  Integration and Improved diagnostics/health assessment and Maintenance Plans/Technical Orders  Prognostics incorporated during design in the Systems Specifications/Technical Orders  Mechanisms for the assessment of remaining useful life of selected weapons/components, etc. as documented in the Systems Specifications | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [3.12](#P3_12) | Participate in CDR | Capability Development Document (CDD)  Life Cycle Management Plan (LCMP)  System Engineering Plan  System Performance Specification  System Allocated Baseline  Updated Cost Analysis Requirements Description  Life Cycle Cost Analysis  Reliability Analysis  Technical Design documentation (engineering drawings, preliminary technical orders; commercial manuals; preliminary materials, parts, and processes; analyses; reports; trade studies; logistics support analysis data; etc.  Updated threat assessment baseline from Intelligence  Test and Evaluation Management Plan  Updated Manpower Estimates  Updated HSI plan  System Engineering Plan (SEP)  Successful completion of all PDR action items  Applicable CDRLs | | |
| **DESCRIPTION:** | | | | |
| The CDR is a multi-disciplined technical review to ensure that the system under review can proceed into system fabrication, demonstration, and test; and can meet the stated performance requirements within cost (program budget), schedule (program schedule), risk, and other system constraints. For complex systems, the program manager may conduct a CDR for each subsystem or configuration item. These individual reviews would lead to an overall system CDR. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Maintenance Planning includes plans/concept for initial, transition and steady state organizational and depot level O&M support, warranties, CORE and SORAP status. 2. Review status of unresolved maintenance and maintenance data problems since PDR. 3. Has a process been implemented to assess achieved reliability, availability, maintainability & cost (RAM-C) performance by collection and analysis of user data? 4. Has a Failure Reporting Analysis and Corrective Action System (FRACAS) been established and failures analyzed and trended for ILS visibility? 5. Review the updated life cycle cost estimate to ensure adequate hardware, software, and personnel support is allocated. Ensure these are contained in the updated CARD and MER 6. Review updated list of required support equipment and verify compatibility of proposed support equipment with the system maintenance concept 7. Verify maximum consideration of GFP-MAT, SE and common parts (standard item with NSN should be first preference). Review GFP-MAT provisioning planning to ensure timely receipt or required items. Ensure SERD procedures in place. 8. Review calibration and reliability predictions for SE. 9. Review spares planning to insure full understanding of scope of requirements to include provisioning requirements, GFP usage, and support during test and initial deployment 10. Have accepted sparing analysis and modeling tools been utilized and are the assumptions consistent with the supportability analysis and the prescribed maintenance concept? 11. Has a Diminishing Manufacturing Sources and Material Shortages (DMSMS) program been established and documented consistent with DOD policy. 12. Ensure energy efficiency and alternate fuels are considered 13. Review technical manuals and technical data package availability to include support equipment and COTS manuals. Ensure data rights issues are addressed. 14. Review status of the Technical Manual Publications Plan to include availability of technical manuals for certification (validation) and verification during DT&E testing 15. Review plans for Work Unit Coding of the equipment 16. Determine if design meets contracts requirements governing size and weight to permit economical handling, loading, securing, transporting, and disassembly for shipment. Identify potential outsized and overweight items. 17. Where applicable, have Unique Identification requirements been incorporated? 18. Identify system/items defined as being hazardous and ensure compliance with hazardous materials regulations. 19. Has a program to eliminate Environment, Safety & Occupational Health (ESOH) hazards or manage the risk where the hazard cannot be avoided been established? 20. Has a Programmatic Environmental Safety and Health Evaluations (PESHE) been updated to summarize current ESOH risk and National Environmental Policy Act (NEPA) compliance schedule? 21. Ensure the design comprehensively addressed the operators, maintainers and support personnel to optimize total system performance, reduce life cycle costs and mitigate program risks. 22. Review Transportability Analysis to determine that transportation conditions have been evaluated. Identify any equipment to be test loaded for air transportability of material in military aircraft. 23. Have potential PHS&T related problems been identified and are risk mitigation plans in place? 24. Has a Training Plan been approved? Does the plan address how courses and related materials and devices will be developed for training at each required level of maintenance? 25. Has the Manpower Estimate Report been updated? (ACAT1 only)? 26. Is there a total breakout of number of personnel and Air Force Specialty Codes (AFSC) that are projected to support the system? 27. Does the Product Support Plan include analysis conducted to determine facility requirements? Are there a Facilities Requirements Document and a schedule to conduct Site Surveys? Reference Checklist 2.10. 28. Ensure logistics decisions and risk identified and are incorporated into the minutes   Note: Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required. | | | [DOD Systems Engineering Fundamentals](https://afkm.wpafb.af.mil/ASPs/DocMan/DocDisplayOnly.asp?Filter=OO-EN-DB&DocID=28782)  [Defense Acquisition Guidebook (5.4.3.2.2.1)](https://acc.dau.mil/CommunityBrowser.aspx?id=328747#5.4.3.2.2.1)  [System Engineering Critical Design Review](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-EN-DB&DocID=250744)  [Comprehensive CDR Checklist](https://acc.dau.mil/CommunityBrowser.aspx?id=157381&lang=en-US)  [Logistics Considerations](https://acc.dau.mil/CommunityBrowser.aspx?id=22528)  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [AFMCI 23-103](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-103.pdf) Diminishing Manufacturing Sources and Material Shortages (DMSMS) Program  [DOD 4140.1-R](http://www.dtic.mil/whs/directives/corres/pdf/414001r.pdf) Chapter 3 section 6  [AFI 21-118](http://www.e-publishing.af.mil/shared/media/epubs/AFI21-118.pdf) Improving Air and Space Equipment Reliability and Maintainability  Chapter 2  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-11  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6.A  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf), Hazardous Material Management  [40 CFR 1500](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=801c8988a5cb85fd75f3c1d7452dcaf1&rgn=div5&view=text&node=40:33.0.3.3.1&idno=40)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  [42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 6-16  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 70  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | | |
| An established system product baseline  The status of the technical effort and design indicates OT success (operationally suitable and effective)  The detailed design, as disclosed, will satisfy the CDD/CPD/ORD  The program schedule is executable within the anticipated cost and technical risks  An updated risk assessment for Engineering & Manufacturing Development  An updated Cost Analysis Requirements Description (CARD) (or CARD-like document) based on the system product baseline  Updated requirements for operations, maintenance, and training needs are complete and unambiguously stated in the system or subsystem specifications  Updated requirements for RM&A are complete and unambiguously stated in the system or subsystem specifications  Updated Life Cycle Management Plan (LCMP)  An updated Test and Evaluation Strategy  An updated System Engineering Plan (SEP)  CDR Minutes  Programmatic Environmental Safety and Health Evaluations (PESHE) | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [3.13](#P3_13) | Prepare Documentation for Post-CDR Assessment | | Outputs from Critical Design Review | |
| **DESCRIPTION:** | | | | |
| The Post-CDR Assessment provides an opportunity for mid-phase assessment of design maturity. It is not as large as a Milestone Decision Review (does not require as much documentation as specified by 5000.02) but it is not a technical review either. They are usually Milestone Decision Authority (MDA)-led management oversight reviews intended to provide an assessment (cost, schedule, supportability, and performance) of a program's readiness to progress further through the acquisition life cycle. MDA can determine the form and content of the review consistent with entrance/exit criteria for the Systems Integration and Systems Demonstration phases. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Review the number of subsystem and system design reviews for successfully completing product support initiatives. 2. Review percentage of drawings completed 3. Review planned corrective actions for product support deficiencies 4. Assess the environment, safety and occupational health risks 5. Review the completed failure modes and effects analysis 6. Assess key product support system characteristics (include support equipment) and processes 7. Ensure Energy Efficiency Environment, Safety & Occupational Health (ESOH), Noise (ambient and occupational) and Alternate Fuels are considered. 8. Ensure all HSI issues to include integration risks are addressed. 9. Review estimate of system reliability based on demonstrated reliability rates; etc. 10. Ensure logistics decisions and risk identified and are incorporated into the minutes   NOTE: There is no guidebook or list of mandatory criteria. | | [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Encl 2, Para 6.c.6.(c), Enclosure 12, Para 6  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=328747#5.4.3.2.2.1) (5.4.3.2.2.1)  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-11  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf), Air Installation Compatibility Use Zone  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 6-16  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 70 | | Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | | |
| Completion of Post-CDR Assessment  Post-CDR Assessment Minutes | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [3.17](#P3_17) | Participate in Test Readiness Review (TRR) | Test Plan  Test and Evaluation Master Plan (TEMP)  Initial Capabilities Document (ICD)  (Draft) Capability Development Document (CDD)  (Draft) System Engineering Plan (SEP)  Support & Maintenance Concept & Technologies | | |
| **DESCRIPTION:** | | | | |
| A review of the test plan, including safety and facilities, to determine readiness to begin testing. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Identify any Product Support (PS) KPP/KSAs within the test plan and ensure they are fully tested, analyzed, and assessed to meet acceptance criteria. 2. Identify opportunities to assess operational safety, suitability and effectiveness of the PS strategy and CONOPs. 3. Review PS readiness assessments, as possible. 4. Review system logistics footprint assessments, as possible. 5. Review PS facility and infrastructure requirements assessments, as possible. 6. Review maintenance procedures assessments, as possible, to include technical manual development and data availability. 7. Review support equipment suitability (to include calibration requirements) and compatibility with system maintenance concept assessments, as possible. 8. Review on-equipment vs. off-equipment maintenance tasks assessments, as possible. 9. Review system size and weight, permitting economical handling, loading, securing, transporting, and disassembling for shipment, to include handling hazardous materials assessments, as possible. 10. Ensure test plan includes adequate funding for PS testing requirements, to include fee for service support and contracted logistics/maintenance support. Scope and plan the necessary resources to support the test program. (including test participants) 11. Ensure test plan includes adequate testing for all HSI relevant requirements. 12. Ensure Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient and occupational) and Alternate Fuels are considered. 13. Assess status of Training Systems to ensure supportability requirements have been met 14. Ensure Intelligence interests are addressed. Reference Appendix A, Checklist 1.04 | | | [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=315920) Chapter 9  [AFPD 99-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD99-1.pdf) Test and Evaluation Process  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf) Paragraphs: 2.3.4, 4.5.3, 4.5.3.4  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-11  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 70  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf), Air Installation Compatible Use Zones  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Approved Readiness to Conduct Test  Updated/Approved Test Plan | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [3.21](#P3_21) | Update Product Support Strategy in LCMP | | Existing Life Cycle Management Plan  Post-CDR Assessment  Operational Test Plan  Capability Production Document | |
| **DESCRIPTION:** | | | | |
| A Life Cycle Management Plan (LCMP) is a comprehensive document that consolidates the weapon system life cycle acquisition management and product support strategies from materiel solution analysis through reclamation/disposal. It is a document that must be maintained to remain compliant with revised/new DOD policy and statutory requirements. It represents a corporate AF position on how to best execute and manage a specific program and requires participation from all program stakeholders in its development and update. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Ensure points in checklist 2.49 are updated 2. Discuss demonstration of system affordability throughout the life cycle, optimal funding, and proper phasing for rapid acquisition 3. Review Cost as an Independent Variable (CAIV). Include any funding shortfalls and discuss current and planned cost reduction initiatives 4. Update discussion of Human Systems Integration (HSI) implications, constraints, and issues 5. Identify potential PBL product support integrators and providers 6. Refine life cycle logistics documents and analyses as a result of development and operational tests, and iterative systems engineering analyses 7. Review SEP to identify processes for development and updates for the Failure Modes, Effects & Criticality Analysis (FMECA) matrix, Failure Reporting, Analysis & Corrective Action System (FRACAS), and Trend Analysis for maturation purposes of the weapon system and its support system See 3.11.1 SLIM checklist 8. Discuss secure and integrated information systems across industry and government that enable comprehensive product support reporting 9. Review the Capability Production Document (CPD) for System Maintenance/Support Profiles and Use Case Scenarios (Support Capability Packages); Reliability and Maintenance Rates; Support Environmental and Locations for Support; Support and Maintenance Effectiveness; Duration of Support. Ensure consideration of the proposed target audience (user). This includes the cognitive, physical and sensory abilities i.e., capabilities and limitations of the operators, maintainers, and support personnel that are expected to be in place at the time the system is fielded. 10. Ensure sufficient coverage of product support elements. Include Diminishing Manufacturing Sources and Material Shortages, Energy Efficiency, Alternate Fuels considerations, demilitarization, declassification and disposal. 11. Review the MDA for exit criteria 12. Assess status of Training Systems to ensure supportability requirements have been met 13. Ensure National Environmental Policy Act (NEPA), facilities/infrastructure; SRM and MILCON funding requirements are addressed lead time away as applicable. 14. Review Air Force strategic energy and infrastructure plan. 15. Ensure the HSI process is used to support generation of a robust plan that considers all human-related domains in an integrated manner. It must be addressed throughout the life cycle, and must be consistently integrated into SE implementation to balance total system performance (hardware, software, and human), and affordability. 16. Ensure planning for Centralized Asset Management (CAM) / Centralized Access for Data Exchange (CAFDEx) inputs are accomplished. See Task 5.25   Note: Review LogEA CONOPS for compliance with architecture – creation of Operational / System / Technical View document may be required. | | [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management Sec 2.11  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [Integrated Defense Acquisition Technology and Logistics Life Cycle Mgmt Framework ("Wall Chart")](http://akss.dau.mil/ifc/)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [Combined DT&E/OT&E/LFT&E](https://acc.dau.mil/CommunityBrowser.aspx?id=315920) (DAG – Chapter 9)  [Configuration Mgmt](https://acc.dau.mil/CommunityBrowser.aspx?id=332970) (DAG - 4.2.3.1.6)  [Configuration Mgmt 2](https://acc.dau.mil/CommunityBrowser.aspx?id=328733) (DAG - 5.1.7)  [Cost as an Independent Variable (CAIV)](https://acc.dau.mil/CommunityBrowser.aspx?id=314768#3.2.4) (DAG - 3.2.4)  [DODD 5000.1](http://akss.dau.mil/dag/DoD5001/Enclosures_1.1.asp#E1.17) The Defense Acquisition System E1.1.17 - Performance-Based Logistics  [Defense Acquisition Guidebook](https://akss.dau.mil/dag/)  [DOD 4140.1R](http://www.dtic.mil/whs/directives/corres/pdf/414001r.pdf) DOD Supply Chain Material Management Regulation  [Supply Chain Management](https://acc.dau.mil/CommunityBrowser.aspx?id=328728) (DAG - 5.1.2)  [Interoperability](https://acc.dau.mil/CommunityBrowser.aspx?id=333015) (DAG - 4.4.10)  [Life Cycle Costs](https://acc.dau.mil/CommunityBrowser.aspx?id=314767) (DAG - 3.1)  [PBL: A PM's Product Support Guide](https://acc.dau.mil/CommunityBrowser.aspx?id=32536)  [Product Support](https://acc.dau.mil/CommunityBrowser.aspx?id=328727#5.1.1.1) (DAG - 5.1.1.1)  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [Air Force Strategic Energy and Infrastructure Plan](http://www.afcesa.af.mil/shared/media/document/AFD-081029-038.pdf)  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-3, D-10  [Centralized Asset Management CoP](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-FM-BD-11)  [Centralized Access For Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/)  [CAFDEx Access Instructions](https://afkm.wpafb.af.mil/ASPs/docman/DOCMain.asp?Tab=0&FolderID=OO-FM-BD-11-37-3&Filter=OO-FM-BD-11)  [Logistics Requirements Determination Process](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)  [40 CFR 1500](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=801c8988a5cb85fd75f3c1d7452dcaf1&rgn=div5&view=text&node=40:33.0.3.3.1&idno=40)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf)  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  [Next Generation CLS Contract Sustainment Support Guide (CSSG)](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=11621638&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | | |
| Elements of Product Support  Updated Life Cycle Management Plan  Programmatic Environmental Safety and Health Evaluation (PESHE) | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [3.30](#P3_30) | Review Capability Production Document (CPD) for supportability | | Capabilities Based Analysis (CBA)  Supportability Objectives  CRRA  JCIDS DOTMLPF analysis  ICD / CDD | |
| **DESCRIPTION:** | | | | |
| The CPD is the sponsor's primary means of providing authoritative, testable capabilities for the Production and Deployment phase of an acquisition program. A CPD is finalized after Post-CDR Assessment and is validated and approved before the Milestone C acquisition decision. The CPD captures the information necessary to support production, testing, and development of an affordable and supportable increment within an acquisition strategy. CPD provides the operational performance attributes necessary for the acquisition community to produce a single increment of a specific system. The CPD refines threshold and objective values for performance attributes and KPPs that were validated in the CDD. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Participate in the initial development, review and update of the entire CPD for supportability inputs since these inputs are incorporated throughout. Reference the AFMC/A4 CPD Review Checklist. 2. Review data used to support initial JCIDS analysis 3. Understand the operational and threat environment in which capability is exercised and manner in which the capability will be employed. (For Intelligence Reference Appendix A, Checklist 1.04) 4. Analyze operational capabilities and environmental constraints. (For Intelligence Reference Appendix A, Checklist 1.04) 5. Review concept performance definition and verification objectives to include constraints 6. Need to ensure supportability analysis determines cost effective support over system life cycle 7. Ensure requirements include Technical Orders & other Technical Data, Support Equipment, Packaging, Handling, Storage & Transportation; Reliability, Availability, Maintainability &Cost (RAM-C); producibility, interoperability & maintainability concepts for inclusion into specifications 8. Ensure Human Systems Integration implications, constraints & issues are addressed and included in the CPD. 9. Ensure hazardous materials, Environment, Safety & Occupational Health (ESOH) and noise constraints are addressed. 10. Ensure DOTMLPF analysis includes logistics considerations. If these are not included ensure analysis is performed.     1. Evaluate existing facilities/infrastructure and installation / capabilities for application. Ensure National Environmental Policy Act (NEPA) milestones and requirements are updated. See task 2.10.2     2. Ensure consideration of the proposed target audience (user). This includes the cognitive, physical and sensory abilities i.e., capabilities and limitations of the operators, maintainers, and support personnel that are expected to be in place at the time the system is fielded. | | [CJCSM 3170.01C](http://www.dtic.mil/cjcs_directives/cdata/unlimit/m317001.pdf) Operation of the Joint Capabilities Integration and Development System - pages G-1 through G-6 and G-A-1 through G-A-8  [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)  [AFMC/A4 CPD Review Checklist](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7819204&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [AFI 10-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-601.pdf) Capabilities-Based Requirements Development  [AFI 10-604](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-604.pdf) Capabilities-Based Planning  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)  [40 CFR 1500](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=801c8988a5cb85fd75f3c1d7452dcaf1&rgn=div5&view=text&node=40:33.0.3.3.1&idno=40)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf), Air Installation Compatible Use Zones  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 17-20  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  **Sample Documents:**  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | | |
| Acquisition Program Baseline (APB) for Milestone C of the Current Increment  Analysis of Alternatives Report  Clinger-Cohen Certification (updated for Milestone C) for Major Automated Information Systems (MAIS)  Acquisition Strategy (updated for Milestone C)  Supportability Objectives  Test & Evaluation Master Plan (TEMP) updated for Milestone C  System Engineering Plan  Capability Roadmap  Manpower estimate | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [3.32](#P3_32) | Participate in the Functional Configuration Audit (FCA) and monitor corrective actions for supportability performance requirements. | | Development testing reports  System Specification  Design-to/subsystem specs (Tier II)  Program supportability objectives (CDD, KPPs, LCMP, CDRLs) | |
| **DESCRIPTION:** | | | | |
| The FCA verifies that all requirements established in the specifications, associated test plans, and related documents have been tested and that the item has passed the tests or corrective actions has been initiated. The FCA forms the basis of the allocated baseline. It determines if the system produced is capable of meeting the technical performance requirements established in the specification. Reviews must be planned, managed, and followed up to be effective as an analysis and control tool. This may be done in conjunction with System Verification Review (SVR). | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Invite Air Logistics Center (ALC) and or sustainment logistician  2. Obtain a good understanding of supportability requirement in the functional baseline.  3. Understand all the verification methodology for those supportability requirements.  a. Verify  b. Test  c. Demonstration  d. Analysis  4. Ensure supportability and HSI requirements, to include Environment, Safety & Occupational Health (ESOH), have been verified and discrepancies have been documented.  5. Follow-up to ensure action items are completed | | [System Engineering Fundamentals Guide](http://www.dau.mil/pubs/pdf/SEFGuide%2001-01.pdf)  [Defense Acquisition Guide](https://acc.dau.mil/CommunityBrowser.aspx?id=328747#5.4.3.2.2.4)  (5.4.3.2.2.4)  [ASC/EN Guide: Technical Reviews/Audits for Aeronautical Weapon Systems Acquisition](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplay.asp?Filter=OO-EN-DB&DocID=267375)  [Guide for FCA-PCA](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-EN-DB&DocID=4307)  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [ISO 15288](http://www.15288.com/) (for fee service)  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 70 | | Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | | |
| All supportability requirements have been verified in the FCA and SVR  All supportability requirements have been allocated in the design – to/subsystem specifications which become the allocation baseline.  FCA and SVR minutes  Document Action Items | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [3.33](#P3_33) | Participate in System Verification Review (SVR) and Production Readiness Review (PRR) | | Test Readiness Review completed  Life Cycle Management Plan  Test and Evaluation Master Plan  Configuration Management Plan  DT&E, LFT&E and Operational Assessments  Capability Development Document (CDD)  Product and Development Specifications  Engineering drawings, Work instructions, Process specifications, Tool drawings, Detailed manufacturing assembly and test processes and Manufacturing test data sheets  Contractor version of baseline data package | |
| **DESCRIPTION:** | | | | |
| SVR is a formal review conducted to verify that the actual item (which represents the production configuration) complies with the performance specification. PRR is a formal examination of a program to determine if the design is ready for production, production engineering, problems have been resolved, and the producer has accomplished adequate planning for the production phase. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Participate on the integrated product team 2. Review desired product support performance attributes 3. Review engineering change proposals or modification requests 4. Ensure designed-in RAM levels are not degraded   **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [AOA Study Plan](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880761&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [AOA for Border Security Air Operations Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880765&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TRA Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880836&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=328747#5.4.3.2.2.3) (5.4.3.2.2.3)  [ANSI/EIA 649A](http://www.geia.org/) For Fee Service  [MIL-HDBK-61A](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=202239) Configuration Management Guidance  [ECSS Configuration and Data Management Plan](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplay.asp?Filter=OO-EN-MC-22&DocID=701472)  [Guide for FCA-PCA](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-EN-DB&DocID=4307)  [ASC/EN Guide: Technical Reviews/Audits for Aeronautical Weapon Systems Acquisition](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplay.asp?Filter=OO-EN-DB&DocID=267375)  [ISO 15288](http://www.15288.com/) (for fee service)  [GEIA-STD-0007](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=7496807&Function=ViewDocument&FolderID=OO-LG-MC-39-27-7-1&Filter=OO-LG-MC-39) A Logistics Product Data  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist E-1 | | Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | | |
| Updated Configuration Management Plan  SVR, PRR and/or FCA Minutes  Updated System Engineering Plan (SEP)  Updated Technology Readiness Assessment (TRA)  Updated Test and Evaluation Master Plan (TEMP)  Updated Programmatic Environmental Safety and Health Evaluations (PESHE)  Capability Production Document (CPD)  Updated Analysis of Alternative (AoA)  Document Action Items | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [3.37](#P3_37) | Prepare Documentation for Milestone C | Determination MS C is required  Capability Production Document  Information Support Plan  Test and Evaluation Master Plan | | |
| **DESCRIPTION:** | | | | |
| There are two types of decision points: milestone decisions and decision reviews. Each decision point results in a decision to initiate, continue, advance, or terminate a project or program work effort or phase. The review associated with each decision point typically addresses program progress and risk, affordability, program trade-offs, acquisition strategy updates, and the development of exit criteria for the next phase or effort. The Milestone Decision Authority approves the program structure, including the type and number of decision points, as part of the acquisition strategy. Milestone C authorizes entry into LRIP (for MDAPs and major systems), into production or procurement (for non-major systems that do not require LRIP) or into limited deployment in support of operational testing for MAIS programs or software-intensive systems with no production components. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| Review and make inputs to applicable documents required by statute or regulation before milestone decision. | | | [Milestone C Documentation](https://akss.dau.mil/dag/DoD5000.asp?view=framework)  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enc. 4 page 34  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AFPD 63/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life Cycle Management  [Replaced System Sustainment Plan Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5241551&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) | Engineering & Manufacturing Development |
| **EXIT CRITERIA:** | | | | |
| Milestone decision approved; full rate production decision  All proper supporting documentation put in the official files | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [4.05.4](#P4_05_4) | Accomplish Spares Provisioning Conference | Spares Acquisition CLIN on Contract  Nomenclature, Weapon System Designator Code (WSDC)  Provisioning Technical Documentation (PTD) Has Been Screened  PTD Has Been Loaded in D220  Approved Provisioning Performance Schedule (PPS) | | |
| **DESCRIPTION:** | | | | |
| The provisioning conference provides for the Government to make item selection and assign technical and management codes (previously referred to within the Air force as a source coding conference).  The following resources will normally be used:  Sample articles when specified in the Initial Provisioning Performance Specification (IPPS).  Provisioning technical documentation/SUPPLEMENTAL data for provisioning (PTD/SDFP).  Maintenance engineering analysis (MEA), and/or RLA, when a requirement of the contract.  Competent personnel with expert technical knowledge of the system/end article with regard to the design, reliability and maintenance characteristics of the system/end article or the portion being provisioned. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| The following activities are accomplished/addressed during a provisioning conference:   1. Hold a closed Air Force meeting (similar to the familiarization meeting held during the guidance conference) before the start of the provisioning conference as required. Meeting chairperson may invite other government agencies such as DLA or have a separate government only meeting. 2. Ensure the availability of adequate facilities, PTD, SDFP, qualified contractor personnel, and Repair Level Analysis (RLA) data, when applicable. 3. Assign Source Maintenance Recoverability (SMR) coding action and documentation. 4. Refer problems that cannot be adequately resolved to the 401 SCMS provisioning Policy Office with all pertinent facts for resolution with the appropriate staff. 5. Ensure that all personnel are aware of the principle of the price challenge policy HQ AFMC direction. Refer all unresolved questions to the 401 SCMS Provisioning Office for policy guidance. 6. Make sure official SMR codes are given to the contractor, through the Contracting Office, for publication in the IPB or the numerical index of the Illustrated Parts Breakdown (IPB) IAW MIL-M-38807 (USAF). Expendability Recoverability Reparability Category (ERRC) codes will not be included. 7. Assure resolution of or action taken on all problem areas. 8. Make sure requirement for the Repairable Items List (RIL), including dates needed are given to the contractor through the Contracting Office. 9. Prepare and distribute minutes. 10. When a Recoverable Item Breakdown (RIB) is sent to the Recoverable Item Inventory Manager (RIIM) ALC, the PTD is forwarded to the D155. | | | [AFMCI 23-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-101.pdf) Air Force Provisioning Instruction, chapter 14  [TO 00-25-195](http://www.tinker.af.mil/shared/media/document/AFD-061220-055.pdf) Source Maintenance Recoverability Code (SMR)  [AFMCMAN 23-3](http://www.e-publishing.af.mil/shared/media/epubs/AFMCMAN23-3.pdf) Cataloging and Standardization  [ASME Y14.100](http://catalog.asme.org/Codes/PrintBook/Y14100_2004_Drawing_Practices.cfm) Engineering Drawing Practices Fee for service  [MIL-STD-31000C](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=276980) Technical Data Packages  [AFMCI 23-104](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-104.pdf) Functions and Responsibilities of the Equipment Specialist during Provisioning  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM) | Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Provisioning Office will update D220 based on changes during the Provisioning Conference.  D220 generates a Supply Support Request (SSR) for Consumables to Defense Logistics Agency (DLA).  D220 generates Required Provisioning Item Order (PIO) for Air Force Managed Items.  Provisioning Conference minutes  Generate Non-consumable item material support request (NIMSR) | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [4.06](#P4_06) | Program Transfer | Milestone C (completion of all acquisition activities)  Initial Operating Capability (IOC)  Full Rate Production (FRP)  Site Activation Task Force (SATAF)  Life Cycle Management Plan (LCMP) | |
| **DESCRIPTION:** | | | |
| Program transfer is an orderly, timely and efficient transfer of program management responsibility for all ACAT level programs to the sustainment portfolio at the most appropriate point in the program. AFI 63-101, indicates, *“*As a general rule, once a program nears completion of all acquisition activity at Milestone C, program offices will consider transferring program responsibility from the Program Executive Officer (PEO) to the appropriate ALC for sustainment.” Planning for sustainment (activities, schedule, resources, milestones, etc.) should occur early in the program life cycle and be documented and updated in the Life Cycle Management Plan (LCMP) or Acquisition Strategy. AFI 63-101, *Acquisition & Sustainment Life Cycle Management* requires the System Program Manager (SPM) to develop/maintain an LCMP that, *“…makes visible to senior leadership all aspects of the program plan*” including sustainment activities. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensure the tasks required by checklists 3.37 (Prepare Documentation for Milestone C), 4.14(Participate in Site Activation Task Force), and 4.42 (Prepare Documentation for Full Rate Production) have been addressed. 2. Ensure a logistician is included on any Integrated Product Teams (IPTs), Program Management Reviews (PMRs), or Portfolio Reviews to confirm the system’s sustainment worthiness for transfer. Focus should be on programs due to transfer in next five years 3. Program transfer begins when the SPM (in collaboration with the Product Support Manager (PSM) and ALC PSI recommend programs to transfer to the PEO. 4. PEO & gaining Air Logistics Center (ALC)/CC will review and recommend transfer to the Service Acquisition Executive (SAE) & Air Force Materiel Command (AFMC)/CC based on:  * Review of established criteria: Reference AFPAM 63-128 * Product Support Elements: Independent Logistics Analysis (ILA) Handbook tools may be used for evaluation of Product Support elements  1. Ensure Program Objective Memorandum (POM) input is coordinated with the ALC for supportability requirements (i.e. manpower) specifically to include subsequent support after transfer. 2. Ensure 3400 POM input, including CAFDEx, is coordinated with the AFMC/A4F Workflow and the designated ALC 3. SAE & AFMC/CC evaluate and approve/decline transfer 4. Participate in update of the Program Management Directive (PMD) 5. Participate in IPT activities for the development and negotiation of transfer agreement. Delivering Center will be IPT lead. 6. Participate in IPT activities associated with the preparation of the Transition Support Plan (TSP) 7. TSP will be coordinated through product and logistics centers and submitted to PEO and ALC/CC for signature/approval. If the TSP is not approved, or if the approval is delayed excessively, elevate to the SAE and the AFMC/CC for resolution. 8. PEO and ALC/CC sign/approve Transfer Agreement. 9. Ensure all residual actions are tracked and accomplished per the Transfer Agreement. | | [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplay.asp?Filter=OO-IN-MC-03&DocID=727896) Use the entire document, see specifically Appendix D, Evaluation Criteria for Milestones and Full Rate Production (FRP) D-7 through D16  [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management  [Program Management Directive (PMD)](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) (AFI 63-101, Para 3.37)  [Centralized Asset Management CoP](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-FM-BD-11)  [Centralized Access For Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/)  [CAFDEx Access Instructions](https://afkm.wpafb.af.mil/ASPs/docman/DOCMain.asp?Tab=0&FolderID=OO-FM-BD-11-37-3&Filter=OO-FM-BD-11)  [Logistics Requirements Determination Process](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11)  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PMD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3979954&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Engineering & Manufacturing Development  Production & Deployment |
| **EXIT CRITERIA:** | | | |
| Life Cycle Management Plan (LCMP)  Program Management Directive (PMD)  Transition Support Plan (TSP)  Program Transitioned | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [4.08.1](#P4_08_1) | Ensure Weapon System is included in the appropriate annex of the Centralized Asset Management (CAM) Enterprise Expectation Management Agreement (EMA) | Milestone C  Life Cycle Management Plan (LCMP)  Contractor or Government Data | |
| **DESCRIPTION:** | | | |
| The CAM EMA is a jointly developed and formally documented agreement between HQ AFMC and the Lead Commands (ACC, AETC, AMC, AFSPC, AFRC, ANG, AFSOC, AFGSC, AFISR) to proactively establish business rules for the upcoming fiscal year and future budgeting years. The EMA includes annexes which are specific to individual weapon systems & programs. The annexes contain lead command weapon system standards and SPM/PGM projections for weapon system capability and/or availability. Document format is specified on the [CAM CoP](https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=23211). This task includes developing and providing information to HQ AFMC/A4F for inclusion in the weapon system annexes. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Contact HQ AFMC/A4F for CAM EMA annex template and instructions.      1. Contact Lead command for the approved standards for your weapon system. e.g. A4 & A8. 2. Ensure current program information is used to develop projections for template input. Projections are SPM/PGM best estimates of capability achievable under current constraints. (against your program standards). 3. Obtain written coordination between the SPM/PGM and Lead Command IAW template guidance annually. Specified schedule for update can be found on the CAM CoP. 4. Work with CAM Program Office to monitor actual performance against projections and standards quarterly. 5. Evaluate the relationship between the standards/projections against any contracts such as CLS. 6. Ensure you review the enterprise CAM EMA business rules annually and provide input through the official comments matrix. See CAM CoP Folder 6. | | [Centralized Asset Management CoP](https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=23211)  Folder 6.1  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-107.pdf) Acquisition & Sustainment Life Cycle Management | Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | |
| Enterprise EMA comments matrix inputs  Completed enterprise EMA  Completed weapon system annex | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [4.14](#P4_14) | Participate in Site Activation Task Force (SATAF) | | CE / Site / Project Office MOAs  System Implementation Plan (SIP)  Site Validated Requirements  Facilities Requirement Plan  Beddown Plan  Site Floor Plans  System Engineering Plan (SEP)  System Security Plan | |
| **DESCRIPTION:** | | | | |
| This procedure identifies the steps necessary to support migration or installation of a new system at the designated sites in accordance with the validated requirements, approved drawings and floor plans, and associated documentation (Plans/Policies). It is assumed that the infrastructure requirements performed by civil engineering (or contractor) have been satisfied. Activities may include installation, testing, and coordination with other infrastructure service agencies such as Defense Information Systems Agency. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Ensure logistician is part of the team. 2. Participate in operational base survey. 3. Validate logistics requirements to develop the site design. 4. Coordinate with site and base logistician on required assets (support equipment, technical orders, spares/training, etc). 5. Ensure all allied support (base level) is completed (such as infrastructure, communications, electrical power, and physical security requirements) in accordance with the associated Memorandums of Agreement (MOA)s 6. Work logistics action items with mitigation plan. 7. Plan and coordinate training, technical orders, support equipment, supply support activities, Facilities, maintenance planning, manpower and personnel, supportability, transportation, systems engineering, and Intelligence. 8. Special consideration for Environment, Safety & Occupational Health (ESOH) at the base including hazardous material and waste management must be addressed. 9. Ensure National Environmental Policy Act (NEPA and Air Force Strategic Energy and Infrastructure Plan milestones have been met and Air Installation Compatible Use Zones (AICUZ) are updated as required. 10. Ensure consideration of any unique habitability issues to facilitate / ensure the safety, survivability, and effectiveness of all personnel. 11. Participate in SATAF out brief | | [AFI 10-503](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-503.pdf) Base Unit Beddown Program  [AFI 10-501](http://www.e-publishing.af.mil/shared/media/epubs/AFI10-501.pdf) Program Action Directives (PAD) and Programming Plans (PPlan)  [AFI 16-403](http://www.e-publishing.af.mil/shared/media/epubs/AFI16-403.pdf) Updating the USAF Program Installations, Units, and Priorities and Movement of Air Force Units  [AFI 32-9005](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-9005.pdf) Real Property Accountability and Reporting  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-9  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [42 USC 4321](http://www.gpoaccess.gov/uscode/index.html)  [40 CFR 1500](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=801c8988a5cb85fd75f3c1d7452dcaf1&rgn=div5&view=text&node=40:33.0.3.3.1&idno=40)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  [AFI 32-7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf), Hazardous Material Management  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf), Air Installation Compatible Use Zones  [AFI 32-7042](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7042.pdf), Integrated Waste Management  [Air Force Strategic Energy and Infrastructure Plan](http://www.afcesa.af.mil/shared/media/document/AFD-081029-038.pdf)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 14-16  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PMA/EMA Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880785&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | Engineering & Manufacturing Development  Production & Deployment |
| **EXIT CRITERIA:** | | | | |
| Update SIP and SEP / LCMP / PMA/EMA  SATAF out brief  Completed National Environmental Policy Act (NEPA) Documentation | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [4.27](#P4_27) | Participate in Operational Test Readiness Review (OTRR) | Test Plan  Test and Evaluation Master Plan (TEMP)  Initial Capabilities Document (ICD)  Capability Development Document (CDD)  System Engineering Plan (SEP)  Support & Maintenance Concept & Technologies  Threat assessment baseline from Intelligence | | |
| **DESCRIPTION:** | | | | |
| A review of the test plan, including safety and facilities/infrastructure, to determine readiness to begin testing. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Identify any Product Support (PS) KPP/KSAs within the test plan and ensure they are fully tested, analyzed, and assessed to meet acceptance criteria. 2. Review operational safety, suitability and effectiveness of the PS strategy and CONOPs assessments, as possible. 3. Review PS readiness assessments, as possible. 4. Review system logistics footprint assessments, as possible. 5. Review PS facility and infrastructure requirements assessments, as possible. 6. Review maintenance procedures assessments, as possible, to include technical manual development and data availability. 7. Review support equipment suitability (to include calibration requirements) and compatibility with system maintenance concept assessments, as possible. 8. Review on-equipment vs off-equipment maintenance tasks assessments, as possible. 9. Review system size and weight, permitting economical handling, loading, securing, transporting, and disassembling for shipment, to include handling hazardous materials assessments, as possible. 10. Ensure test plan includes adequate funding for PS testing requirements, to include fee for service support and contracted logistics/maintenance support. Scope and plan the necessary resources to support the test program. (including test participants) 11. Ensure test plan includes adequate testing for all HSI relevant requirements. 12. Assess the risk of items or issues not fully addressed in the test plan and address the impact of DT issues that have not yet been resolved. 13. Assess status of Training Systems to ensure supportability requirements have been met 14. Ensure Intelligence interests are addressed. Reference Appendix A, Checklist 1.04 | | | [Defense Acquisition Guidebook Chapter 9](https://acc.dau.mil/CommunityBrowser.aspx?id=315920)  [AFPD 99-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD99-1.pdf) Test and Evaluation Process  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist D-11  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 112  **Sample Documents:**  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE) | Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Approved Readiness to Conduct Test  Updated/Approved Test Plan | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [4.31](#P4_31) | Participate in PCA | Acceptable performance in development, test and evaluation and operational assessment; mature software capability  No significant manufacturing risks  Manufacturing processes under control  Approved ICD (if Milestone C is program initiation)  Approved Capability Production Document (CPD)  Acceptable interoperability; acceptable operational supportability  Compliance with the DOD Strategic Plan; and demonstration that the system is affordable throughout the life cycle, optimally funded, and properly phased for rapid acquisition.  CPD reflects the operational requirements resulting from EMD and details the performance expected of the production system. | | |
| **DESCRIPTION:** | | | | |
| A formal audit that establishes the product baseline as reflected in an early production configuration item. The PCA is conducted around the time of the full rate production decision and examines the actual configuration of an item being produced. It verifies that the related design documentation matches the item as specified in the contract. In addition to the standard practice of assuring product verification, the PCA confirms that the manufacturing processes, quality control system, measurement and test equipment, and training are adequately planned, tracked, and controlled. The PCA validates many of the supporting processes used by the contractor in the production of the item and verifies other elements of the item that may have been impacted / redesigned after completion of the System Verification Review (SVR). A PCA is normally conducted when the government plans to control the detail design of the item it is acquiring via the Technical Data Package. When the government does not plan to exercise such control or purchase the item's Technical Data Package (e.g., performance based procurement) the contractor should conduct an internal PCA to define the starting point for controlling the detail design of the item and establishing a product baseline. The PCA is complete when the design and manufacturing documentation match the item as specified in the contract. If the PCA was not conducted prior to the full rate production decision, it should be performed as soon as production systems are available. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Review technical data (specifically drawings, models, and associated lists) for accuracy, completeness, and compliance with contract requirements. 2. Ensure product definition data is the latest release which matches the configuration of the product 3. Ensure build data is the latest release which matches the configuration of the product with appropriate quality assurance stamp 4. Ensure associated lists (e.g. notes lists, application lists, parts list, bill of materials) are accurate, complete, and consistent with product definition data 5. Ensure nomenclature descriptions, part numbers and serial numbers on the drawings are listed on the build paper 6. Ensure special instructions and processes on the drawings are listed on the build paper to include dimensions, tolerances, finishes, etc. 7. Ensure Environment, Safety & Occupational Health (ESOH) safeguards are included. 8. Verify the human related attributes are accurately included in the configuration 9. Ensure that the markings on the data match the rights in the contract. 10. Ensure nomenclature consistency between the models, drawings, and hardware 11. Review the Program Parts Selection List (PPSL) and ensure the list match the hardware and technical data 12. Define which parts will be provisioned. If so, ensure the test data that is essential to manufacturing is included on, or furnished with the technical data. 13. Review documentation to ensure the configuration before and after qualification testing is available to include any changes made since qualification testing (e.g., engineering change orders). 14. Review documentation to ensure changes made since the last audit or drawing review (e.g., engineering change orders) are maintained. | | | [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=328748#5.4.4.2.6.2) (5.4.4.2.6.2)  [ASC/EN Guide: Technical Reviews/Audits for Aeronautical Weapon System Acquisition](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-EN-DB&DocID=267375)  [ASC Configuration Management Processes Guide](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=206723)  [MIL-HDBK-61A](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=202239) Configuration Management Guidance  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist E-1  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf)  page 112  **Sample Documents:**  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [TEMP](https://afkm.wpafb.af.mil/ASPs/deskbook/index2.asp?Filter=OO-TE&Type=SE&Cat=TE)  [Manpower Document Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880744&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [MER Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880804&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Production & Deployment |
| **EXIT CRITERIA:** | | | | |
| Established production baseline  Updated CPD, TEMP, PESHE, LCMP, and SEP as required  Inputs to Cost/Manpower estimate  FCA/PCA Certificate of Completion | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [4.42](#P4_42) | Prepare Documentation for Full Rate Production (FRP) Decision | Determination that FRP Decision is required | |
| **DESCRIPTION:** | | | |
| The Logistician should review and make input to the following documents required by statute or regulation before Milestone Decision can be sought and rendered | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. **Post-Deployment Performance Review** 2. **CCA Compliance**   (All IT-including NSS)(Table E4.T1)   1. Programmatic Environmental Safety and Health Evaluations (PESHE) **(including National Environmental Policy Act (NEPA) compliance schedule)** 2. **Selected Acquisition Report (MDAPs only)(MS B and annually thereafter)** 3. **Independent Cost Estimate (CAIG) and Manpower Estimate (reviewed by OUSD(P&R))(N/A for AISs, MDAPs only)** 4. **LFT&E Report** 5. **Acquisition Program Baseline** 6. **Acquisition Strategy** 7. **Analysis of Alternatives (for MAIS, MS B or equivalent)** 8. **Interoperability Certification** 9. **Economic Analysis (MAIS only)(MS B or equivalent)** 10. **Component Cost Analysis (mandatory of MAIS anytime an economic analysis is required, either by statute or by the MDA, as requested by CAE for MDAP)** 11. **Cost Analysis Requirements Description (MDAPs and MAIS acquisition programs only) (for MAIS, anytime an economic analysis is required either by statute or by the MDA) (CARDs shall be prepared according to the procedures specified in DOD Instruction 5000.02). Ensure energy costs are considered.** 12. Test and Evaluation Master Plan 13. Operational Test Agency Report of Operational Test and Evaluation Results 14. Acquisition Decision Memorandum | | [5 USC 306](http://www.gpoaccess.gov/uscode/index.html)  [15 U.S.C. 644(e)(2)](http://www.gpoaccess.gov/uscode/index.html)  [40 U.S.C. Subtitle III Sec. 8088, Pub.L. 107-248 (or successor appropriations act provision)](http://www.gpoaccess.gov/uscode/index.html)  [42 U.S.C. 4321](http://www.gpoaccess.gov/uscode/index.html)  [10 U.S.C. 2432](http://www.gpoaccess.gov/uscode/index.html)  [10 U.S.C. 2434](http://www.gpoaccess.gov/uscode/index.html)  [10 U.S.C. 2366](http://www.gpoaccess.gov/uscode/index.html)  [10 U.S.C. 2399](http://www.gpoaccess.gov/uscode/index.html)  [10 U.S.C. 2435](http://www.gpoaccess.gov/uscode/index.html)  [DODD 5000.01](http://akss.dau.mil/dag/DoD5001/Enclosures_1.1.asp#E1.8) The Defense Acquisition System  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [32 CFR 989.3(c)(3)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title32/32cfr989_main_02.tpl)  [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=332388)  [Replaced System Sustainment Plan Summary](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5241551&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) | IOC – FRP Decision |
| **EXIT CRITERIA:** | | | |
| Milestone decision approved  All proper supporting documentation put in the official files | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [4.42.1](#P4_42_1) | Participate in Foreign Military Sales (FMS) Activities | Foreign Government Letter of Request (LOR)  Tasking from Undersecretary of Defense for International Affairs (SAF/IA) or the Air Force Security Assistance Center (AFSAC) | | |
| **DESCRIPTION:** | | | | |
| The Foreign Military Sales (FMS) Program is that part of Security Assistance authorized by the Arms Export Control Act and conducted using formal contracts or agreements between the Government and an authorized foreign country. These contracts, called Letters of Offer and Acceptance (LOAs), provide for the sale of defense articles and/or defense services (to include training) usually from DOD. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Respond to request for assistance in development of Foreign Military Sales requirement. The program office will receive a request from the SAF/IA Desk Officer or the AFSAC Command Country Manager (CCM) to provide assistance to a foreign government wishing to procure capabilities through the FMS process. Per DOD 5105.38-M, Table C5.T2., all requests must come through SAF/IA and/or AFSAC.    1. The Program Manager must determine if resources are available to support the requested effort.    2. If additional resources are needed, communicate with SAF/IA or AFSAC.    3. If total resources needed for a Pre-LOA effort exceeds ½ man-year, or $25,000, inform SAF/IA and AFSAC CCM for potential development of LOA Support Case funded by the foreign government, or waiver.    4. Funding for Pre-LOA travel must be coordinated through the center International Programs Office (IPO).    5. Identify HSI concerns related to target user population and country differences. See 1.13.1 HSI Checklist 2. Perform Site Survey or other case planning to definitize foreign government requirements. If the foreign government is new to Foreign Military Sales or is wanting to acquire a system new to their inventory a Site Survey may be necessary to develop a program baseline. This effort is funded by the foreign government via a Letter of Offer and Acceptance (LOA), either written to specifically fund manpower (USG and contractor) and travel, or via recoupment through a system sale LOA. General case planning of lesser extent may be funded by FMS Administrative Funds.    1. Form Site Survey or informal team that are capable of addressing the area in b below in addition to persons that can identify essential components of the weapon system to be offered    2. Perform a survey that will evaluate the following areas:       1. Facilities footprint required to operate and maintain the weapon system (existing & new)       2. Logistics Support requirements to include CLS if necessary       3. Training       4. Information security requirements       5. Technical assessments, as necessary       6. The capability of the base infrastructure to sustain the increased base population associated with the weapon system operations    3. Prepare a report and/or brief the potential FMS purchaser whether Site Survey or informal review.    4. If a formal Site Survey, prepare quarterly summary report for Congress, as directed by SAF/IA. 3. Prepare Price and Availability (P&A) data. P&A data are rough order of magnitude. If the development of the response requires preparation of reports or other documentation, or travel to meetings, it does not qualify as ROM/P&A.    1. Receive validated P&A request from SAF/IA or AFSAC    2. Using available information, including standard Air Force factors and formulas, formulate P&A.    3. Include standard disclaimer on P&A response stating the data provided is to be used for planning purposes only. 4. Prepare LOA Data (LOAD). The Letter of Offer and Acceptance is a formal, binding document between the USG and the foreign government utilizing the Foreign Military Sales (FMS) system. The LOR is validated by the Command Country Manager at AFSAC who then passes the LOR to the Case Manager who requests formal, detailed information from the Program Office. This LOA Data (or LOAD) generally includes pricing for items being acquired and USG personnel to implement the program, schedules, Sole Source arrangements, services being acquired through contracts, Technical Data, training, testing, source of supply, etc. The request for LOAD is accomplished through the Defense Security Assistance Management System (DSAMS).    1. Receive DSAMS tasking from Center IPO to prepare LOAD    2. Review LOR to ensure information is sufficient to develop valid and accurate LOAD estimates.    3. If information in the LOR is not sufficient, request additional information via the Case Manager    4. Develop LOAD to include line item descriptions and notes, estimated delivery schedules, program milestones, payment schedules, and manpower and associated cost required to execute the case and all other required information.    5. Complete LOAD tasking within 30 calendar days of the tasking date via DSAMS.    6. If LOAD development cannot be completed by the due date the preparing office must request an extension from the Case Manager, providing justification.    7. Review LOAD through internal Program Office and IPO process    8. Complete LOAD tasking via DSAMS to Center IPO 5. Prepare FMS Manpower Data. During the development of an LOA the Program Manager, in conjunction with the Case Manager, may determine that the execution of the case requires dedicated manpower and personnel resources. Manpower and personnel resources are managed by a cooperative process involving SAF/IAPX and the MAJCOM Manpower and Organization Office. FMS manpower and personnel requirements must be categorized based on the duties performed. All case funded manpower requirements must be documented by the development of a Manpower Requirements Package (MRP) or Manpower Change Notice (MCN). A Manpower and Travel Data Sheet (MTDS) is mandated by the Defense Security Cooperation Agency (DSCA) and must accompany all LOAs requiring case funded manpower or case funded travel. | | | [DOD 5105.38-M](http://www.dtic.mil/whs/directives/corres/html/510538m.htm) Security Assistance Management Manual  C5.T6., Row #1  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf) International Affairs and Security Assistance Management  Chapter 3  [DOD 5105.38-M](http://www.dtic.mil/whs/directives/corres/html/510538m.htm) Security Assistance Management Manual  C5.T6., Row #2  AFSAC Interim Policy, 29 Apr 04  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) App 4 pages 67-71  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf) International Affairs and Security Assistance Management  Chapter 3  [DOD5105.38-M](http://www.dtic.mil/whs/directives/corres/html/510538m.htm)  C5.T6., Row #3 and  AFMAN 16-101, Chapter 3  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf), Chapter 3 (Para 3.3.4.)  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf), Chapter 3 (Para 3.4.1.)  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf) International Affairs and Security Assistance Management  Para 4.4.2.1  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf), Para 4.4.2.2  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf), Para 4.4.2.3.1  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf)  Para 4.5.3.3.  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf)  Para 4.5.3.1.  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf), Para 4.5.3.1.  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf), Para’s 4.5.2., 4.5.4. through 4.5.8., and 4.5.10. (with all sub-para’s, as applicable)  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf), Para 4.5.3.4.  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf), Para 4.5.3.5.  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf), Para 4.5.11.1.  [AFMAN 16-101](http://www.e-publishing.af.mil/shared/media/epubs/AFMAN16-101.pdf), Para 4.5.3.3.  **Sample Documents:**  [Site Survey Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880826&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LOA AMD Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880793&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LOA MOD Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880797&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [LOA Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880800&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Available resources are in place or are provided via AFSAC or SAF/IA  Site Survey Report  Price & Availability Data  LOAD  FMS Manpower Data  Letter of Offer and Assistance | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [5.10](#P5_10) | Update Product Support Strategy for Sustainment in Life Cycle Management Plan (LCMP) | Existing LCMP  Capability Production Document (CPD)  Transition Support Plan (TSP)  Sustainment Decision  Program Management Directive (PMD) | | |
| **DESCRIPTION:** | | | | |
| A Life Cycle Management Plan (LCMP) is a comprehensive document that consolidates the weapon system life cycle acquisition management and product support strategies from materiel solution analysis through reclamation/disposal. It is a document that must be maintained to remain compliant with revised/new DOD policy and statutory requirements. It represents a corporate AF position on how to best execute and manage a specific program and requires participation from all program stakeholders in its development and update. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** | |
| 1. Ensure points in checklist 3.21 are updated 2. Discuss demonstration of system affordability throughout the life cycle, optimal funding, and proper phasing for rapid acquisition 3. Refine life cycle logistics documents and analyses as a result of development and operational tests, and iterative systems engineering analyses 4. Review SEP to identify processes for development and updates for the Failure Modes, Effects & Criticality Analysis (FMECA) matrix, Failure Reporting, Analysis & Corrective Action System (FRACAS), and Trend Analysis for maturation purposes of the weapon system and its support system 5. Discuss secure and integrated information systems across industry and government that enable comprehensive product support reporting 6. Review the Capability Production Document (CPD) for:    1. System Maintenance/Support Profiles and Use Case Scenarios (Support Capability Packages)    2. Reliability and Maintenance Rates    3. Reflection of any changes to the support environment    4. Support and Maintenance Effectiveness    5. Duration of Support    6. Human Systems Integration implications, issues and constraints 7. Ensure sufficient coverage of product support elements. Include Diminishing Manufacturing Sources and Material Shortages, Energy Efficiency, Environment, Safety & Occupational Health (ESOH), Noise (ambient and occupational), Alternate Fuels considerations, demilitarization, declassification and disposal. Specifically consider facilities requirements for classified materials and unique storage issues. 8. Ensure the HSI process is used to support generation of a robust plan that considers all human-related domains in an integrated manner. It must be addressed throughout the life cycle, and must be consistently integrated into SE implementation to balance total system performance (hardware, software, and human), and affordability. 9. Develop and coordinate Program Management / Expectation Management Agreement between System Sustainment Management and users. 10. Ensure approval of transition support plan and seamless process between acquisition and sustainment portfolios. 11. Ensure systems can be supported throughout its life cycle (DMSMS, Life Cycle Sustainment Plan, and Migration/Disposal Planning). 12. Implement Condition Based Maintenance + (CBM+) Reference 5.41.2 SLIM Checklist     1. Use to improve maintenance agility and responsiveness, increase operational availability, and reduce life cycle total ownership costs. 13. Ensure RAM-C is not compromised by use of chemicals of emerging regulatory interest. 14. Ensure planning for Centralized Asset Management (CAM) / Centralized Access For Data Exchange (CAFDEx) inputs are accomplished. See Task 5.25 Prior to program transfer all inputs should be coordinated with the Program Office and designated ALC   Note: Review LogEA CONOPS for compliance with architecture – creation of Operational / System / Technical View document may be required. | | [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management Sec 2.11  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [Integrated Defense Acquisition Technology and Logistics Life Cycle Mgmt Framework ("Wall Chart")](http://akss.dau.mil/ifc/)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [Combined DT&E/OT&E/LFT&E](https://acc.dau.mil/CommunityBrowser.aspx?id=315920) (DAG – Chapter 9)  [Configuration Mgmt](https://acc.dau.mil/CommunityBrowser.aspx?id=332970) (DAG - 4.2.3.1.6)  [Configuration Mgmt 2](https://acc.dau.mil/CommunityBrowser.aspx?id=328733) (DAG - 5.1.7)  [Condition Based Maintenance Plus (CBM+)](http://www.acq.osd.mil/log/mpp/cbm+/CBM_DoD_Guidebook_May08.pdf)  [Interoperability](https://acc.dau.mil/CommunityBrowser.aspx?id=333015) (DAG - 4.4.10)  [Life Cycle Costs](https://acc.dau.mil/CommunityBrowser.aspx?id=314767) (DAG - 3.1)  [Product Support](https://acc.dau.mil/CommunityBrowser.aspx?id=328727#5.1.1.1) (DAG - 5.1.1.1)  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklist E-1  [Centralized Asset Management CoP](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-FM-BD-11)  [Centralized Access For Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/)  [CAFDEx Access Instructions](https://afkm.wpafb.af.mil/ASPs/docman/DOCMain.asp?Tab=0&FolderID=OO-FM-BD-11-37-3&Filter=OO-FM-BD-11)  [Logistics Requirements Determination Process](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11)  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System Enclosure 12, Para 6  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [DOD Product Support BCA Guidebook](https://acc.dau.mil/adl/en-US/440506/file/56912/BCA%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [AFI 32 7086](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7086.pdf), Hazardous Material Management  [AFI 32-7063](http://www.e-publishing.af.mil/shared/media/epubs/AFI32-7063.pdf), Air Installation Compatible Use Zones  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14)  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf)  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf)  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [Next Generation CLS Contract Sustainment Support Guide (CSSG)](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=11621638&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PMD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3979954&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Updated Life Cycle Management Plan to include all Elements of Product Support (Life Cycle Sustainment Plan)  Updated Product Support Strategy  Migration Plan | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [5.11](#P5_11) | Sustainment Systems Engineering | Capability Production Document (CPD)  Production contract  Technical data  Program Management / Expectation Management Agreement (PMA/EMA)  Systems Engineering Plan (SEP)  Final Product Baseline and product specifications  Life Cycle Management Plan (LCMP)  Transfer Plan  Initial Operational Capability (IOC) and/or Full Operational Capability (FOC)  Milestone C approval | | |
| **DESCRIPTION:** | | | | |
| Sustainment Systems Engineering is the process which provides technical and engineering support during the life of the sustainment phase. This process includes the entire set of scientific, technical and engineering managerial efforts needed to deploy, support and dispose of a weapon system. Sustainment Systems Engineering contributes to the overall sustainment management function, of maintaining the required weapon system availability, capability and OSS&E to support the warfighter mission. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Review the SEP annually and update as required. 2. Execute sustainment engineering in accordance with the SEP. 3. Develop prioritized list of tasks/requirements coordinated with the MAJCOM/users. These tasks and requirements will support either weapon system availability and/or new capability. The final prioritized list must be entered into CAFDEx.   4. Basic Sustainment Engineering processes to support weapon system availability. See task 5.41.2 SLIM.   * Monitor and collect all reliability, availability, maintainability & cost (RAM-C), supportability, equipment status reporting, and maintenance data, user Feedback, Failure Reports, Discrepancy Reports, Deficiency Reports, Crash reports, and Safety bulletins. * Analyze data to determine root causes * Determine system Risk/Hazard Severity * Identify HSI relevant issues and constraints that can be used to provide input into subsequent increments of capability or modifications to the system * Provide inputs to appropriate lessons learned repositories * Develop Corrective Action * Integrate & Test Corrective Action * Assess Risk of improved System * In-Service Review – implement and field * Ensure analysis and corrective actions are properly documented. * Inputs to CDD for next increment * Modifications / upgrades to fielded systems – Maintain Product Baseline documentation to reflect all approved changes. * Maintain Systems Engineering Plan * Provide technical / engineering support for hardware and software depot maintenance activities * Provide technical / engineering support for supply chain management activities * Support the PM in managing all Sustainment / support contracts / tasks.   5. Other supporting process supported and managed by Sustainment Engineering function to support system availability requirements: configuration management and control, OSS&E, DMSMS, technical refresh, F3I analysis and approval, information insurance (IA) re-certification, system security management and Program Protection Planning (PPP), technology protection, corrosion control plan execution, and on-site engineering support.  6. Basic Sustainment Engineering processes to support weapon system new capabilities (Note, if the new capability requirements results in initiation of an ACAT program and development of an ICD then refer ASTK EMD phase): These include:   * AF Form 1067 requirements analysis and initial engineering evaluation. * Identify, analyze and select material solution option. This will include cost estimates and trade studies. * Once a material solution is selected/approved and funded, the engineer will develop technical contract inputs. This includes a Performance Work Statement, Technical Requirements Document (TRD), draft system specification, and technical CDRL. * Perform technical evaluation to include Basis of Estimate Evaluations on all contract/task proposals * Manage, oversee, verify and test the system development baselines, to include the required support elements. Review and approve the performance baseline (SRR), allocated baseline (PDR), and product baseline (CDR). Verify and test the product to include the support elements. * Support the PM in managing all modification / upgrade contracts/tasks. | | | [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [DOD Guide for Achieving Reliability, Availability, and Maintainability](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=328734) (5.2)  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [AFMCI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI63-1201.pdf) Implementing Operational Safety, Suitability and Effectiveness (OSS&E) and Life Cycle Systems Engineering  [AFI 63-124](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-124.pdf) Performance-Based Services Acquisition  [AFI 99-103 (T&E)](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf)  [AFI 63-131](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-131.pdf) Modification Program Management  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [DODI 8500.01](http://www.dtic.mil/whs/directives/corres/pdf/850001p.pdf) Information Assurance (IA)  [Systems Engineering Plan (SEP) Outline](http://www.acq.osd.mil/se/docs/PDUSD-Approved.SEP_Outline-04-20-2011.docx)  [Systems Engineering Fundamentals Guide](http://www.dau.mil/pubs/pdf/SEFGuide%2001-01.pdf)  [MIL-STD-882D](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=36027) (Safety)  [Independent Logistics Assessment (ILA) Handbook](https://acc.dau.mil/GetAttachment.aspx?id=32430&pname=file&aid=6132)  Note: Potential Best Practices contained in: [OO-ALC AFMCI 63-1201\_Hill AFB Supplement 1](http://www.e-publishing.af.mil/shared/media/epubs/afmci63-1201_hillafbsup1.pdf) - across AFMC (OPR – AFMC/EN)  [Centralized Access For Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/)  [CAFDEx Access Instructions](https://afkm.wpafb.af.mil/ASPs/docman/DOCMain.asp?Tab=0&FolderID=OO-FM-BD-11-37-3&Filter=OO-FM-BD-11)  [Logistics Requirements Determination Process](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11) See Section 2.9  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 134  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) Table 2 page 16  [Joint Lessons Learned Information System (JLLIS)](https://www.jllis.mil/usaf/)  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880789&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PMA/EMA Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880785&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Production and Deployment  Operations and Support |
| **EXIT CRITERIA:** | | | | |
| Updated: CPD  Contracts  Technical data  PMA/EMA’s  SEP  Updated Product Baseline and product specifications  LCMP  Engineering studies analysis and reports  Performance Based Agreements (PBA)s  Aircraft Availability reports | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [5.12](#P5_12) | Execute Material Support for Sustainment Management - Defense Logistics Agency (DLA) Interface | Program Management / Expectation Management Agreements (PMA/EMA)  Weapon System Coding in support of the WSSP  Life Cycle Management Plan (LCMP)  Supply Support Strategy  Support Equipment Recommendation Data (SERD)  Provisioning Technical Documentation  Supply Support Requests (SSR)  Technical Data Packages  Packaging, Handling, Storage, Transportation (PHS&T) Requirements  Diminishing Manufacturing Sources and Material Shortages (DMSMS) Items  Disposal/Reutilization of Items | | |
| **DESCRIPTION:** | | | | |
| This checklist describes how, when, and where in the Acquisition and Sustainment Phases to interface with DLA. DLA is DODs largest combat support agency providing worldwide logistics support to the military services as well as several civilian agencies and foreign countries. The DLA centers are organized by Defense Supply Chains: DSC Richmond -Aviation, DSC Columbus – Land and Maritime, DSC Philadelphia - Medical, Clothing & Textile, Subsistence, Construction Equipment and Defense Energy Supply Center (DESC) - Fuel/Energy. DLA provides consumable items management, Procurement of Depot Level Repairable (DLRs), Cataloging, Packaging, Handling, Storage, Transportation (PHS&T), Asset Marking to include Item Unique Identification (IUID), and Disposal of materials for the Air Force and other services. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Coordinate with DLA Distribution Depot Center (DDC) for PHS&T and Asset Marking to include IUID Requirements (Reference Task 2.37) 2. Coordinate with DLA Defense Logistics Information Service (DLIS) for Support Equipment (SE) Recommendation Data (SERD) Process (Reference Task 2.37.6) 3. Coordinate with DLA DSCR for DMSMS program plan (Reference Task 2.37.13) 4. Coordinate with DLA Supply Center Richmond – Aviation (DSCR) on the Supply Support Strategy (Reference Task 2.37.14) 5. Contact DLA DSCR for support when standing up the Program Office (Reference Task 3.02) 6. Coordinate DLA DLIS and DLA DDC for Support Equipment (SE) Guidance Conference (Reference Task 2.47.1) 7. Coordinate with DLA DLIS for the Spares Provisioning Guidance Conference (Reference Task 2.47.4) 8. Coordinate with AF WSSP Monitor to ensure DLA WSDC is identified. (Reference Task 3.09.1) 9. Coordinate with DLA DLIS for Provisioning Conference (Reference Task 4.05.4) 10. Coordinate with DLA DSCR for Supply Requirements (Reference Task 5.44) 11. Coordinate with DLA Disposition Services for Disposal/Reutilization of Items (Reference Task 5.51 & 5.67) | | | DLA - <http://www.dla.mil/site_index.aspx>  DDC – <http://www.ddc.dla.mil/>  DLIS - <http://www.dlis.dla.mil/default.asp>  DSCR – <http://www.dscr.dla.mil/>  [DLA One Book](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3539180&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82) Industrial Capabilities Section  http://www.disposition services.dla.mil/  [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) Vol 1, Part 1: Basic Air Force Supply Procedures  [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) Vol 2, Part 2: USAF Standard Base Supply System (SBSS)  [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) Vol 3, Part 2: D035K Users Manual  [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) Vol 3, Part 3: Item Manager Wholesale Requisition Process (D035A)  [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) Vol 6: Excess and Surplus Personal Property  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PMA/EMA Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880785&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SERD Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880831&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Technology Development  Engineering & Manufacturing Development  Production and Deployment  Operations and Support |
| **EXIT CRITERIA:** | | | | |
| Supply Requirements Determination  PHS&T Requirements  Consumable Item Management  Cataloging and Standardization of Items  Procurement of DLRs  Disposal/Reutilization of Items  WSDC Assignment  DMSMS Program Plan | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [5.18](#P5_18) | Equipment Specialist Checklist | | Equipment List (Installation and non-configured items)  Government Furnished Property (GFP-MAT)  Support Equipment (SE)  Material List  Unique Tooling  Unique Facility Equipment (Uninterruptible Power Supply, Generators, Filter, etc.)  Unique Test Equipment  Software/Hardware support equipment  (Hardware/Software/Firmware/Installation Equipment) | |
| **DESCRIPTION:** | | | | |
| The purpose of the Equipment Specialist is to assist in planning for and implementing effective DOD equipment management activities and practices during all life cycle phases of defense systems and configuration/non-configured items. It supports acquisition based on performance specifications, and the use of industry standards and methods to the greatest practicable extent throughout all phases of the lifecycle from concept exploration to disposition and disposal. Activities and practices include:  Equipment/Material Identification  Equipment/Material Control  Equipment/Material Status Accounting  Equipment/Material Verification and Audit  Equipment/Material Data Management | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Understand MIL-HDBK-61A, local and contractor Equipment Control process.  2. Become a participating member of the EC and Diminishing Manufacturing Sources and Material Shortages (DMSMS) teams.  3. Review proposed changes for equipment considerations and impacts (i.e. Product Support Elements)  4. Initiate actions to ensure supportability considerations are implemented as required  5. Follow local exhibit management, storage, processing, and disposal procedures  6. Make appropriate planning and control to system documentation i.e.;  • Installation Drawings  • Master Equipment List  • Equipment/Material Technical data Reference task 5.41.1 (Non-configured Drawings, TO, Data, etc.)  • Equipment/Material Spares  • Equipment/Material Support Equipment  • Equipment/Material Calibration | | [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [AFPD 63/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life cycle Management  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [MIL-HDBK-61A](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=202239) Configuration Management Guidance  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [ANSI/EIA 649A](http://www.geia.org/) Click on “Standards” | | Materiel Solution Analysis  Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Identify Equipment supportability Issues (EC Checklist)  Verified EC incorporated in all affected items with appropriate documents  Status Equipment accounting data base appropriate to each phase  Equipment Management-competent contractor base  Equipment Management process performance measured & continuously improved  Lesson learned  EC Recommendations and Disposition | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [5.25](#P5_25) | Utilize Centralized Asset Management (CAM) / Centralized Access for Data Exchange (CAFDEx) | | Program Objective Memorandum (POM)  Program Office Estimate (POE)  Life Cycle Management Plan (LCMP) | |
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| CAM provides AF enterprise level optimization to maximize warfighting capability through performance based outcomes and centralized programming, budgeting and execution for AF weapon system sustainment. It standardizes/streamlines sustainment requirements focused on fleet-based management. CAM’s purpose is to optimize the shrinking 3400 sustainment budgets to target top AF priorities. CAM encompasses Depot Purchased Equipment Maintenance (DPEM) which includes Aircraft & Missiles, Engines, Other Major End Items (OMEI), Non – MSD exchangeables, Area / Base Support / Local Manufacture (ABM), Software, Support Equipment repair, and Storage. CAM also includes Contractor Logistics Support (CLS), Technical Order maintenance, Sustaining Engineering, and Aviation Petroleum Oil and Lubricants (AvPOL). CAM does not include second destination transportation funding. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Contact HQ AFMC/A4F Workflow to notify CAM Office of your program. HQ AFMC/A4F will assign a CAM analyst. 2. Obtain CAFDEx account. Register using link in Source Documentation column. Attend any available CAM / CAFDEx training. 3. Work with Program Financial Manager to determine CAM portion of the:    1. Program Office Estimate    2. POM inputs    3. Specifically, 3400 funding requirements 4. Coordinate with the designated ALC on budgeting inputs and program schedule. 5. Ensure requirements are input into CAFDEx within the FYDP to include: 6. DPEM 7. CLS 8. Sustaining Engineering 9. Technical Orders 10. Repeat steps 3, 4 & 5 annually. 11. Recognize that full funding may not be available and ensure you have a flexible contract vehicle.   Notify HQ AFMC/A4F Workflow and your CAM Analyst of any major program changes. e.g. major change in quantities or schedule adjustments | | [Centralized Asset Management CoP](https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=23211)  [Centralized Access For Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/)  [CAFDEx Access Instructions](https://afkm.wpafb.af.mil/ASPs/docman/DOCMain.asp?Tab=0&FolderID=OO-FM-BD-11-37-3&Filter=OO-FM-BD-11)  [Logistics Requirements Determination Process (LRDP)](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11) See table of contents  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-107.pdf) Acquisition & Sustainment Life Cycle Management | | Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Program Office Estimate  POM Inputs  CAFDEx inputs  Updates to LCMP | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [5.33](#P5_33) | Manage Sustainment Business Activities | Initial Capabilities Document (ICD)  Capability Development Document (CDD)  Capability Production Document (CPD)  CONOPS  Defense Acquisition Officer (DAO) Assignment  Sustainment System Program Manager (SPM) assignment  Mission Assignment Process (MAP)  Program Management Directive (PMD)  Production contract  Sustainment Contracts  Program Management / Expectation Management Agreements (PMA/EMA)s  Performance Based Agreements (PBA)s  Life Cycle Management Plan (LCMP)  Transfer Plan  Materiel Fielding Plan  Initial Operational Capability (IOC) and/or Full Operational Capability (FOC)  Milestone C approval | |
| **DESCRIPTION:** | | | |
| Sustainment Program Management is the process of executing Program Management for an operational fielded system, beginning during the Production and Deployment phase, and maturing and normalizing during the Operations and Sustainment phase of the life cycle. This Sustainment Management process includes the entire set of management, technical, and logistics support efforts and tasks needed to plan, fund and execute a successful sustainment program to sustain, support, maintain and improve the assigned weapon system. Sustainment Program Management leads and manages the overall sustainment management program to support weapon system availability and capability requirements and meet warfighter mission requirements. Sustainment Management also includes adding new capability based on approved MAJCOM and COCOM requirements, and continues through disposal of the weapon system and drawdown of the sustainment program office. The Sustainment Program Manager leads a team of functional experts, including, system engineers, security engineers, equipment specialists, inventory managers, etc., and is supported by financial managers, contracting specialists, and other functional experts as required. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Execute, lead and manage the overall Sustainment Program for assigned system, subsystem, or system segment 2. Utilize ASTK for guidance and executing the Sustainment program 3. Perform as IPT Lead for the Sustainment Management Team, leading and guiding all team members, supporting personnel, support organizations and support contractors to maintain required system availability, improve system capability, and meet mission objectives in a highly effective and efficient manner 4. Effectively and efficiently manage and employ resources, e.g., personnel, funds, etc., to meet or exceed all cost, schedule and performance requirement for assigned system/subsystem 5. Identify HSI relevant issues that can be used to provide inputs to modifications, lessons learned and subsequent increments of capability for the system. 6. Analyze, manage and report resource deficiencies, e.g., funding, personnel, infrastructure capabilities, etc, up the execution and command chains to advocate for resolution. This includes modernization of depot facilities as required. 7. Review and update LCMP, PMA/EMAs, PBAs, SEP, to include Item Unique Identification (IUID) Implementation Plans, ISP and other program management and technical documentation as required to maintain the management and technical baselines for the program, and support User and system maintenance and support requirements 8. Execute MAJCOM approved sustainment and upgrade/modification requirements according to MAJCOM approved priorities, in support of the warfighter mission 9. Manage effective Performance Based sustainment and support contracts, by developing processes, work products, and tailored CDRLs to facilitate effective execution of the contract requirements, and include appropriate contractual quantitative and qualitative performance measures, to require and incentivize adequate availability, improved capability, reduced Logistics Footprint, adequate Logistics Response Times, and reduced life cycle cost 10. Manage re-competition efforts for expiring sustainment, support and upgrade/modification contracts 11. Manage and measure performance of organic support providers, e.g., SCM, Depot Maintenance Activities, etc., IAW PBAs requirements 12. Develop, submit, and advocate for Sustainment budget 13. Effectively and efficiently execute Sustainment funds to satisfy User / Warfighter requirements IAW MAJCOM approved priorities 14. Conduct and support Sustainment Management Reviews, PMRs, PIWGs and other technical and management reviews with MAJCOM/User, SPM, PEO/DOA, and higher Headquarters as required 15. Establish and foster working relations with User/MAJCOM, organic and contractor support providers, and higher Headquarters to facilitate effective and efficient support to the warfighter, and successful program execution 16. Ensure Data Management activities, tools and processes are effectively managed and executed 17. Ensure all engineering, technical and system baseline configuration management activities are effectively managed and executed 18. Ensure all maintenance activities are effectively managed and executed 19. Ensure all supply chain management activities are effectively managed and executed 20. Ensure all IA and system certification activities are effectively managed and executed 21. Ensure all Program Protection Planning and System Security Management activities are effectively managed and executed 22. Ensure all test and verification activities are effectively managed and executed 23. Stay current on and execute all legal and policy requirements pertaining to Sustainment Management of assigned system 24. Assess User satisfaction with sustainment management and support provided by the SPM and all support providers and improve processes as required to ensure customer satisfaction 25. Oversee all Reclamation, Re-Use, Disposal, and migration activities for assigned system | | [DODD 5000.01](http://akss.dau.mil/dag/DoD5001/Enclosures_1.1.asp#E1.8) The Defense Acquisition System  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Defense Acquisition Guidebook](https://dag.dau.mil/Pages/Default.aspx)  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering  [AFMCI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI63-1201.pdf) Implementing Operational Safety, Suitability and Effectiveness (OSS&E) and Life Cycle Systems Engineering  [AFI 99-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI99-103.pdf) Capabilities Based Test and Evaluation  [AFI 63-131](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-131.pdf) Modification Program Management  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management  [AFPD 63/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life Cycle Management  [DODI 8500.01](http://www.dtic.mil/whs/directives/corres/pdf/850001p.pdf) Information Assurance (IA)  [AFPAM 63-128](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-AQ-DB&DocID=183691) Guide to Acquisition & Sustainment Life Cycle Management Sec 2.11  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [HSI Acquisition Phase Guide](http://www.wpafb.af.mil/shared/media/document/AFD-100122-034.pdf) page 134  [HSI Handbook](http://www.wpafb.af.mil/shared/media/document/AFD-090121-054.pdf) page 46  [Joint Lessons Learned Information System (JLLIS)](https://www.jllis.mil/usaf/)  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM)  **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880789&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PMA/EMA Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880785&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ICD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880732&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [ISP Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880738&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PMD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3979954&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PPP Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880817&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [SEP Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3923173&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | Operations & Support |
| **EXIT CRITERIA:** | | | |
| Updated ICD, CDD, CPD  Updated CONOPS  Management and Execution of Sustainment and Support Contract  Compliance with Laws and Policy  CDRL Deliverables  Managing New and Re-Competition Efforts for Sustainment and Upgrade/Modification Contracts  Updated T.O.s, Specifications, and Engineering Data  Well Managed Supply Chain  Efficient and Effective Depot Maintenance Management  Maintained or Improved System Availability  Improved Weapon System Capability  Improved Effectiveness and Efficiency of Sustainment Program Management  Updated LCMP  Budget Planning and Execution Documents  Updated PMA/EMA’s  Updated PBAs  Updated SEP  Updated ISP  Updated Program Protection Plans and Security Classification Guides (Sags)  Engineering/Technical Studies, Analyses and Reports  Management Studies, Analyses, and Reports  Cost/Benefit and Business Case Analyses and Reports  Briefings to Air Force/DOD Leaders, Managers, MAJCOMs/COCOMs and Warfighters  Program Reviews  Weapon System Reliability, Availability and Equipment Status Reports | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [5.35](#P5_35) | Manage Information & Communication Activities | | Requirement for Logistics IT System(s) | |
| **DESCRIPTION:** | | | | |
| The logistics information systems are critical to providing acquisition logisticians with rapid, current, and complete logistics information for making informed command and control decisions. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Obtain an Information System Management Tool (ISMT) account 2. Submit a Communications and Information Systems Requirements Document (CSRD) via ISMT Requirements Document Tracking Module (RDTM) 3. Provide support as required throughout the Logistics IT Requirements Management Process 4. Ensure all IT systems are registered in the Enterprise Information Technology Data Repository (EITDR) 5. Ensure all Authority to Operate (ATO) and Authority to Connect (ATC) has been obtained for all IT systems   Note: Review LogEA CONOPS for compliance with architecture – creation of Operational/System/Technical View document may be required. | | ISMT Web Site: <https://www.ismt.wpafb.af.mil/>  [AFI 33-103](http://www.e-publishing.af.mil/shared/media/epubs/AFI33-103.pdf) Requirements Development and Processing  [AFMC Requirements Management Plan located on the AFMC/A4N CoP](https://afkm.wpafb.af.mil/ASPs/docman/DOCMain.asp?Tab=0&FolderID=OO-LG-MC-01-10&Filter=OO-LG-MC-01)  [AFI 33-210](http://www.e-publishing.af.mil/shared/media/epubs/AFI33-210.pdf) Air Force Certification and Accreditation (C&A) Program (AFCAP)  Integrated Requirements Review Board (IRRB) Minutes (Posted monthly on the AFMC/A4N CoP)  [Independent Logistics Assessment (ILA) Handbook](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=467429&Function=ViewDocument&FolderID=OO-LG-MC-36-8&Filter=OO-LG-MC-36) See Checklists D-2, D-3, D-12, F-1  [LogEA](https://www.my.af.mil/afknprod/community/views/home.aspx?Filter=AF-LG-00-14) | | Engineering & Manufacturing Development  Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Disposition of CSRD/Baseline Change Requests (BCR) directed towards the affected IT systems. | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [5.41.1](#P5_41_1) | Manage Technical Order (TO) Sustainment | | Formal Technical Orders and supporting data  Technical Order Management Plan (TOMP)  Maintenance Strategy  Product Support Strategy  Transition Support Plan (TSP)  Life Cycle Management Plan (LCMP) | |
| **DESCRIPTION:** | | | | |
| Technical Orders must be sustained and maintained to ensure currency, completeness and accuracy for support of affected equipment. Sustainment includes: updating, numbering, indexing, publication (editing & printing), stocking, and delivery to the user. The organization or individual assigned TO sustainment responsibility is called the Technical Order Manager. The TO content is managed by the equipment specialist (ES) or engineer responsible for the equipment covered by the TO. This individual is known as the Technical Content Manager (TCM). This checklist gives instructions on the processes used to maintain a technical order from TO formalization to equipment disposal. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Number and index TOs. See TO Numbering & Indexing Process Flow.  2. Manage the correction and improvement of TOs through the TO update process. See TO Improvement Process Flow.  3. Manage the verification process for new TOs and TO updates. See TO 00-5-3 and the TOVP.  4. Publish TOs and updates. Includes developing, formatting, pre-pub review and printing. See TO Publishing Process Flow  5. Stock and store TOs IAW TO 00-5-3  6. Distribute TOs IAW validated orders received through the TO Management System (JCALS, soon to be replaced by ETIMS). Ensure a digital copy is provided to the Air Force TO Archives. See TO 00-5-3.  7. Develop TO budget inputs based on the Comprehensive Air Force Technical Order Plan (CAFTOP). See TO 00-5-3. Ensure TO budget inputs are inserted into CAFDEx. See task 5.25  8. Evaluate and approve Commercial Off-The-Shelf (COTS) manuals for equipment support as required. See MIL-PRF- 32216  9. Review and rescind TOs when no longer required. See TO 00-5-3. | | TO 00-5-3 AF Technical Manual Acquisition Procedures  TO 00-5-18 AF Technical Order Numbering System  TO 00-5-1 AF Technical Order System  [AFRIMS](https://www.my.af.mil/gcss-af61a/afrims/afrims/rims.cfm) (T33-40 R 03.00)  [Enhanced Technical Information Management System (ETIMS)](https://www.my.af.mil/gcss-af61/ETIMS/index.jsp) ETIMS is the prescribed method of accessing the 00-5 series of TOs. To request access, users should send an e-mail to [af.todo1@eglin.af.mil](mailto:af.todo1@eglin.af.mil) which identifies their full name, AF portal ID and the TOs or TO Series to which access is required  [Develop TO strategy](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=466413)  [Technical Order Contract Requirements](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=105442)  [TO Delivery Requirements](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=105476)  [TM-86-01](https://techdata.wpafb.af.mil/toprac/working.htm)  [Generic TOMP](https://techdata.wpafb.af.mil/toprac/appdx-b.doc)  [TO Verification Planning](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=104794)  [TO Verification](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=105454)  [Generic TOVP](https://techdata.wpafb.af.mil/toprac/appdx-c.doc)  [Manage TO Improvement System](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=105591)  [TO Improvement Process Flow](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3922821&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [TO Numbering & Indexing Process Flow](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3922823&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [TO Publishing Process Flow](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3922817&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [AFI 61-204](http://www.e-publishing.af.mil/shared/media/epubs/AFI61-204.pdf) Disseminating Scientific and Technical Information  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [AFI 65-601 Vol. 1](http://www.e-publishing.af.mil/shared/media/epubs/AFI65-601V1.pdf) Budget Guidance and Procedures  [MIL-PRF-32216](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=275451) Evaluation of Commercial Off-the-Shelf (COTS) Manuals and Preparation of Supplemental Data  [Centralized Asset Management CoP](https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-FM-BD-11)  [Centralized Access For Data Exchange (CAFDEx)](https://aplhiis.hill.af.mil/CAFDExAuthorization/)  [CAFDEx Access Instructions](https://afkm.wpafb.af.mil/ASPs/docman/DOCMain.asp?Tab=0&FolderID=OO-FM-BD-11-37-3&Filter=OO-FM-BD-11)  [Logistics Requirements Determination Process (LRDP)](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=4525837&Function=ViewDocument&FolderID=OO-FM-BD-11-33-3&Filter=OO-FM-BD-11) See Section 2.10 | | Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Sustainment of quality TOs that satisfy the needs of the users  Disposal of Technical Orders | | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [5.41.2](#P5_41_2) | Continue Collecting and Refining Data to support System Lifecycle Integrity Management (SLIM) | | Supply & Maintenance Data  Operational Data  Deficiency Reports  OSS&E baseline document  Systems/Product Specifications  Technical Orders | |
| **DESCRIPTION:** | | | | |
| SLIM is the integration of Weapon System Improvement Program (WSIP), Condition Based Maintenance (CBM+), Reliability Centered Maintenance (RCM), Aircraft Information Program (AIP), Military Flight Operations Quality Assurance (MFOQA), and Reliability, Availability and Maintainability (RAM) efforts. The purpose is to implement standardized engineering processes/tools associated with optimizing resources and increasing proactive system monitoring and performance assessment leading to product improvement throughout the system lifecycle. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Monitor and assess systems performance in accordance with the System Information Master Plan (SIMP),    * Collect, store and maintain usage, maintenance and sensor data    * Assure/facilitate data access    * Implement and standardize diagnostics, prognostics and R&M tools Improve feedback processes from operations and maintenance to engineering and Lifecycle management 2. Perform analysis to integrate Productivity Improvements e.g., WSIP, Military Flight Operations Quality Assurance (MFOQA), RAM, RCM and CBM (+) efforts    * Maintain and update plans, maintenance programs, diagnostic & prognostic algorithms, analysis, models, and requirements developed in previous phases of the lifecycle as required.    * Maintain and update CBM+, RAM, WSIP, RCM/MSG-3, HVM, AIP, L/ESS, IATP, and MFOQA programs and capabilities throughout the system lifecycle 3. Influence resource allocation    * Validate and update LCCE associated with SLIM elements    * Plan, program and budget for Productivity Improvements 4. Initiate product improvements for diagnostics, prognostics and continuous process improvement initiatives | | [AF SLIM Guide](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=7976976&Function=ViewDocument&FolderID=OO-TR-AF-10-36&Filter=OO-TR-AF-10)  [DOD CBM+ Guidebook](http://www.acq.osd.mil/log/mpp/cbm+/CBM_DoD_Guidebook_May08.pdf)  [AFMCI 21-103](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI21-103.pdf) Reliability Centered Maintenance  [DOD RAM Guide](http://www.acq.osd.mil/dte/docs/RAM_Guide_080305.pdf)  [DOD Reliability, Availability, Maintainability and Cost Rationale Report (RAM-C) Manual](http://www.acq.osd.mil/dte/docs/DoD-RAM-C-Manual.pdf)  [MIL-HDBK-515](https://assist.daps.dla.mil/docimages/A/0000/0021/2249/000000349694_000000166370_RAJNSXDSQJ.PDF?CFID=7270650&CFTOKEN=94653742&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Weapon System Integrity guide (WSIG)  [MIL-STD-1530C](https://assist.daps.dla.mil/docimages/A/0000/0003/6952/000000486252_000000155043_MEBIYVSBNP.PDF?CFID=7269839&CFTOKEN=36834248&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Aircraft Structural Integrity Program (ASIP)  [AFI 63-1001](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1001.pdf) Aircraft Structural Integrity Program (ASIP)  [MIL-STD-3024](https://assist.daps.dla.mil/docimages/A/0000/0027/6036/000000608667_000000208445_QRZNBUJRNO.PDF?CFID=7270084&CFTOKEN=80100708&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Propulsion System Integrity Program (PSIP)  [MIL-STD-1798](https://assist.daps.dla.mil/docimages/A/0000/0007/1161/000004886413_000000216271_LSFWUBHFYR.PDF?CFID=7270306&CFTOKEN=23978293&jsessionid=5c308d3ba2cf7e9d1c4827125f70d742f503) Mechanical Equipment and Subsystems Integrity Program (MECSIP)  [MIL-HDBK-87244](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=115812) Avionics/Electronics integrity Program (AVIP) Cancelled, Best Practice  [AFPD 63-1/20-1](http://www.e-publishing.af.mil/shared/media/epubs/AFPD63-1.pdf) Acquisition & Sustainment Life Cycle Management  [AFMCI 21-103](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI21-103.pdf) Reliability Centered Maintenance  [AFI 90-1301](http://www.e-publishing.af.mil/shared/media/epubs/AFI90-1301.pdf) Implementing Military Flight Operations Quality Assurance (MFOQA)  [AFI 90-1301](http://www.e-publishing.af.mil/shared/media/epubs/AFI90-1301_AFMCSUP.pdf) Implementing Military Flight Operations Quality Assurance (MFOQA) AFMC Supplement  [AFI 63-1401](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1401.pdf) Aircraft Information Program  [AFH 63-1402](http://www.e-publishing.af.mil/shared/media/epubs/AFH63-1402.pdf) Aircraft Information Program  [AFH 63-1402](http://www.e-publishing.af.mil/shared/media/epubs/AFH63-1402_AMCSUP_I.pdf) Aircraft Information Program AFMC Supplement  [DODI 4151.22](http://www.acq.osd.mil/log/mrmp/dodi_415122.pdf) Condition Based Maintenance Plus (CBM+) for Materiel Maintenance  [JCIDS Manual](https://www.intelink.gov/wiki/JCIDS_Manual)  [AFI 63-1201](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-1201.pdf) Life Cycle Systems Engineering (Atch 6/7, Maintenance Engineering/Sustaining Engineering and Product & System Integrity)  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf) Acquisition & Sustainment Life Cycle Management | | Operations and Support |
| **EXIT CRITERIA:** | | | | |
| Revised Maintenance Data  Updated OSS&E Baseline Documents  Closed Deficiency Reports  Updates Technical Orders  Updated OSS&E baseline | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [5.56](#P5_56) | Modification Management (AF Form 1067) | Product baseline and specifications  AF form 1067 Modification Proposal  Initial Capabilities Document (ICD)  Funding | |
| **DESCRIPTION:** | | | |
| ACAT level modifications are treated as new acquisitions and would start at the beginning in the AS Tool Kit. Refer to AFI 63-131 for specific determination of mod level. Follow the tasks as for a new program and tailor them.  Modification Management refers to non-ACAT level modification for this checklist. This is a non-inclusive overview, so continue to use ASTK tasks in Operation & Support Phase. In this checklist, modifications are upgrades or changes that impact the product baseline. These efforts will be able to follow a tailored process. | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensure that the proposed modification requirement is approved; this is done via AF Form 1067 in response to maintenance, new capability, or operational problems. Supportability consideration must be addressed when finalizing the requirement 2. Ensure HSI implications, constraints and other issues are thoroughly addressed in the process. See task 1.13.1 HSI. 3. IPT assigned to work the modification as a Material improvement Project or ECP. Systems engineering process is used to determine feasibility, OSS&E, and estimated costs 4. Funding for the Mod must be identified. Valid P3A and R2 documentation must be provided in accordance with AFI 65-601 5. Lead command approves the modification plan 6. Depending on the size of the mod an IMP/IMS may be developed 7. Participate in the risk assessment/analysis 8. Consult Intelligence for threat baseline currency. Reference Appendix A, Checklist 1.04 9. Ensure Program Protection Plan is Updated 10. Develop requirement baseline specification 11. Determine options and select modification plan. Block updates could include several modifications depending on accessibility of the equipment system (platform) or other considerations 12. Following CCB approval, contracting actions are prepared or organic sources scheduled to perform initial mod. See checklist 2.47.3 for detailed CCB information 13. Testing may be required for the modification. T-2 mod could in fact be used for this testing. Ensure all supportability considerations are planned for any testing or T-2 program. See AFI 63-131 for detailed T-2 process 14. Following successful test, perform PCA/FCA if needed 15. Communicate supply chain management requirements. This includes communicating with DLA and AFGLSC for spares support 16. The installation schedule is completed, and may entail installation kits. Ensure that all support requirements are planned. This can include TO changes, Support Equipment, training, and spares. For additional information on TOs see checklist 5.56.1 17. Kit proofing must also be supported by appropriate manpower and resources 18. Update system product baseline including any specification, drawing etc. 19. Ensure that technical support is planned for modification installation. This may include organic depot field teams or Contractor Field Teams (CFT)s. Often this is done at the operational location in the field 20. For temporary modifications (T-2), the final step is returning equipment to the original configuration 21. Ensure compliance with Item Unique Identification (IUID) requirements | | [AFI 63-131](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-131.pdf) Modification Program Management (T-2 on pp 15) (permanent mod process on pp 18)  [AF Form 3525](http://www.e-publishing.af.mil/shared/media/epubs/af3525.xfd) CCB Modification Requirements and Approval Document  [AF Form 1067](http://www.e-publishing.af.mil/shared/media/epubs/af1067.xfd) Modification Proposal  [AFMC Form 518](http://www.e-publishing.af.mil/shared/media/epubs/afmc518.xfd) Configuration Control Board Directive  [AFI 65-601](http://www.e-publishing.af.mil/shared/media/epubs/AFI65-601V1.pdf) Vol. 1 Budget Guidance and Procedures  [CJCSM 3312.01A](http://www.dtic.mil/cjcs_directives/cdata/unlimit/3312_01.pdf) Joint Military Intelligence Requirements Certification  [AFI 14-111](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-111.pdf) Intelligence in Force Modernization  [AFI 14-202V3](http://www.e-publishing.af.mil/shared/media/epubs/AFI14-202V3.pdf) General Intelligence Rules  [HSI Requirements Pocket Guide](http://www.wpafb.af.mil/shared/media/document/AFD-090121-055.pdf) pages 6-16  [Product Data Acquisition Guidance](https://www.my.af.mil/gcss-af/USAF/site/ACQUISITION/ACE/PLM) | Operations & Support |
| **EXIT CRITERIA:** | | | |
| Updated Product Baseline and OSS&E Baseline  Temporary Modification (T-2) completed and returned to original configuration  Completed modifications  Closed AF Form 1067 | | | |

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| **TASK #** | **PROCESS NAME:** | | **ENTRANCE CRITERIA:** | |
| [5.56.1](#P5_56_1) | Manage Time Compliance Technical Order (TCTO) Process | | Configuration Control Board (CCB) approved:  Engineering Change Request or Order  Engineering Change Proposal (ECP)  Engineering Change Notice (ECN)  Technical Order Management Plan (TOMP)  Technical Order Verification Plan (TOVP)  Technical Manual Contract Requirements (TMCR) Document, TM-86-01  Maintenance Strategy  Product Support Strategy | |
| **DESCRIPTION:** | | | | |
| TCTOs shall be used to document all permanent modifications, update changes and retrofit changes to standard Air Force (AF) systems and commodities. TCTOs are authorized by TO 00-5-1. They provide instructions for modifying military systems or commodities within specified time limits, initiate special ‘‘one time’’ inspections, or impose temporary restrictions on systems or commodities. This checklist gives instructions on the TCTO process used to maintain and update equipment configuration. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | | **PHASE** |
| 1. Initiate TCTO package. (AFMC Forms 873, 874, 875 and AFTO Form 82). Ensure funding has been addressed prior to the Configuration Control Board (CCB) 2. Obtain TCTO number from JCALS / ETIMS, assign data code number (provided by the numbering specialist @ OC-ALC) and establish a Reliability and Maintainability Information System (REMIS) record. 3. Develop formal or interim TCTO IAW TO 00-5-15, 00-5-1and MIL-PRF-38804. 4. If required, provide advanced notifications of Interim TCTO IAW TO 00-5-15. 5. Develop TO updates as required to document TCTO “before” and “after” data. 6. Develop and number TCTO Kits as required by the complete kit concept (TO 00-5-15) 7. Perform TCTO verification (kit proofing) of the TCTO, any applicable TO updates and the TCTO kit. 8. Publish and distribute formal or interim TCTO, TO updates and TCTO kit concurrently to meet compliance period schedules. 9. Rescind TCTO after compliance or upon reaching the rescission date. Update TOs to remove “before” data. Disposition kits after completion/rescission. 10. Update REMIS and JCALS records as necessary   **Sample Documents:**  [TMCR Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880839&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | [Technical Order Contract Requirements](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplayOnly.asp?Filter=OO-LG-DB&DocID=105442)  [TM-86-01](https://techdata.wpafb.af.mil/toprac/working.htm)  [Generic TOMP](https://techdata.wpafb.af.mil/toprac/appdx-b.doc)  [Generic TOVP](https://techdata.wpafb.af.mil/toprac/appdx-c.doc)  TO 00-5-1 Air Force Technical Order System  TO 00-5-18 Air Force Technical Order Numbering System  TO 00-5-15 Air Force Time Compliance Technical Order Process  [Enhanced Technical Information Management System (ETIMS)](https://www.my.af.mil/gcss-af61/ETIMS/index.jsp) ETIMS is the prescribed method of accessing the 00-5 series of TOs. To request access, users should send an e-mail to [af.todo1@eglin.af.mil](mailto:af.todo1@eglin.af.mil) which identifies their full name, AF portal ID and the TOs or TO Series to which access is required  [AFI 61-204](http://www.e-publishing.af.mil/shared/media/epubs/AFI61-204.pdf) Disseminating Scientific and Technical Information  [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [AFI 65-601 Vol. 1](http://www.e-publishing.af.mil/shared/media/epubs/AFI65-601V1.pdf) Budget Guidance and Procedures  [TCTO Development Flow Chart](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3922818&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [MIL-PRF-38804](https://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=22465) Performance Specification Time Compliance Technical Orders - Preparation | | Production & Deployment  Operations & Support |
| **EXIT CRITERIA:** | | | | |
| Completion of modification to all affected equipment  Rescission of TCTO | | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | |
| [5.65.1](#P5_65_1) | Provide Support Equipment Disposition | Life Cycle Management Plan (LCMP)  Program Established  Program Management Directive (PMD)  Acquisition Decision Memorandum (ADM) | |
| **DESCRIPTION:** | | | |
| Disposal of Equipment | | | |
| **CHECKLIST SUBTASKS:** | | | |
| **TASK** | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Ensure points for Checklist 2.37.2 are updated 2. Ensure points for Checklist 2.37.3 are updated 3. Ensure points for Checklist 2.37.6 are updated 4. Determine reason for disposal 5. Coordinate with item managers for shipping instructions 6. Dispose of equipment according to Item manager instructions   **Sample Documents:**  [LCMP Sample](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=5952065&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [PMD Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3979954&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [Risk Management Plan Sample](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880822&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82)  [Cost Estimate Summary](https://afkm.wpafb.af.mil/ASPs/docman/Process/ProcessDOCFunctions.asp?DocID=3880734&Function=ViewDocument&FolderID=MC-LG-01-82-5-4-1&Filter=MC-LG-01-82) | | [AFI 63-101](http://www.e-publishing.af.mil/shared/media/epubs/AFI63-101.pdf), Acquisition & Sustainment Life Cycle Management  [ILA Handbook](https://afkm.wpafb.af.mil/ASPs/DocMan/DOCDisplay.asp?Filter=OO-IN-MC-03&DocID=727896) The first part of the documents explains the Integrated Logistics Assessment (ILA) process. Use the checklist within your program acquisition phase.  [AFPAM 63-128](http://www.e-publishing.af.mil/shared/media/epubs/AFPAM63-128.pdf) Guide to Acquisition & Sustainment Life Cycle Management  [AFMC Guide to the Defense Depot Maintenance Council Cost Comparability Handbook.](http://www.jdmag.wpafb.af.mil/cchb.pdf)  [AFPD 23-5](http://www.e-publishing.af.mil/shared/media/epubs/AFPD23-5.pdf) Reusing and Disposing of Materiel  Paragraph 1  [DODI 4160.28](http://www.dtic.mil/whs/directives/corres/pdf/416028p.pdf) DOD Demilitarization (DEMIL) Program  [DOD 4160-28-M Vol. 1](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol1.pdf) Defense Demilitarization: Program Admin  [DOD 4160-28-M Vol 2](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol2.pdf) Defense Demilitarization: DEMIL Coding  [DOD 4160-28-M Vol 3](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol3.pdf) Defense Demilitarization: Procedural Guidance  [DOD DEMIL Web Page](https://demil.osd.mil/)  [AFMAN 23-110, Vol. II](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) USAF Supply Manual Part 2, Chapter 22 | Operations & Support |
| **EXIT CRITERIA:** | | | |
| Approved Integrated Risk Assessment, POE or other cost estimate as described in AFI 63-101.  Documentation of the source data for the POE product support elements.  Updated Life Cycle Mgmt Plan (LCMP) | | | |

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| **TASK #** | **PROCESS NAME:** | **ENTRANCE CRITERIA:** | | |
| [5.67](#P5_67) | Disposing of Weapon System, Major end items and associated components | Weapon System / End Item enters the Air Force inventory  Life Cycle Management Plan (LCMP) | | |
| **DESCRIPTION:** | | | | |
| This checklist gives instructions on actions required to ensure readiness to dispose of items as well as the disposal process. | | | | |
| **CHECKLIST SUBTASKS:** | | | | |
| **TASK** | | | **SOURCE DOCUMENTATION** | **PHASE** |
| 1. Planning for demilitarization and disposal of items starts during cataloging of all components/completion of design of a weapon system. The demilitarization and classification codes for all items must be identified as soon as material designs are documented. Procedures on how to demilitarized/sanitize (declassify) parts/components must also be developed. For non-stock listed items, the program office must still develop/identify these requirements. 2. Prototypes that are not used for production/fielded must be demilitarized when they are no longer required. 3. The Program Office, during design process, must document hazardous material, and estimate the cost and plan for the system’s demilitarization and safe disposal. A DEMIL Plan for the weapon system should be generated prior to DT&E and created/updated when a system is modified/upgraded, the security classification guide is significantly changed, and prior to release of a system to a non-governmental agency. 4. The Program Office must program/budget for the cost to prepare turn-in documents, remove/dispose of hazardous material and perform demilitarization actions required for classified/DEMIL G, P, and F coded items (if the service is determined as responsible for DEMIL. This includes long term facilities storage requirements. 5. Once weapon systems, end items are identified as excess to the Air Force, reclamation must be considered/ performed. 6. Aircraft and Missiles which are retained for future reclamation must be evaluated for potential reclamation and the program office must determine when retention is not cost effective. 7. Reutilization, transfer, donation, sale, actions must be taken IAW AFMAN 23-110. 8. Coordinate with local qualified recycling program (QRP) for disposition of QRP eligible materials/commodities. 9. Provide inputs to appropriate lessons learned repositories | | | [DODI 4160.28](http://www.dtic.mil/whs/directives/corres/pdf/416028p.pdf) DOD Demilitarization (DEMIL) Program  [DOD 4160-28-M Vol. 1](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol1.pdf) Defense Demilitarization: Program Admin  [DOD 4160-28-M Vol 2](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol2.pdf) Defense Demilitarization: DEMIL Coding  [DOD 4160-28-M Vol 3](http://www.dtic.mil/whs/directives/corres/pdf/416028m_vol3.pdf) Defense Demilitarization: Procedural Guidance  [DOD DEMIL Web Page](https://demil.osd.mil/)  [AFMAN 23-110](http://www.e-publishing.af.mil/shared/media/epubs/afman23-110.pdf) USAF Supply Manual, Vol. 6  [DODI 5000.02](http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf) Operation of the Defense Acquisition System  [DOD PSM Guidebook](https://acc.dau.mil/adl/en-US/440507/file/56913/PSM%20Guidebook%20April%202011.pdf)  [Weapon System Acquisition Reform Act](http://thomas.loc.gov/cgi-bin/query/z?c111:S.454:)  [Defense Acquisition Guidebook](https://acc.dau.mil/CommunityBrowser.aspx?id=328729) (5.1.3)  [AFMCI 23-111](http://www.e-publishing.af.mil/shared/media/epubs/AFMCI23-111.pdf) Reclamation of Air Force Property  [Preservation & Storage of Tooling for MDAPs](https://afkm.wpafb.af.mil/ASPs/DocMan/Process/ProcessDOCFunctions.asp?DocID=7530559&Function=ViewDocument&FolderID=MC-LG-01-82-5-4&Filter=MC-LG-01-82)  [AFI 16-402](http://www.e-publishing.af.mil/shared/media/epubs/AFI16-402.pdf) Aerospace Vehicle Programming, Assignment, Distribution, Accounting and Termination  [Joint Lessons Learned Information System (JLLIS)](https://www.jllis.mil/usaf/) | Technology Development  Engineering & Manufacturing Development  Production and Deployment  Operations and Support |
| **EXIT CRITERIA:** | | | | |
| All Air Force owned / managed systems, all excess assets were appropriately reutilized, demilitarized/sanitized (declassified), transferred, and no longer on any Air Force inventory (Exception: assets may be on the National Museum of the Air Force’s inventory).  Update to LCMP | | | | |

ACAT Acquisition Category

ADM Acquisition Decision Memorandum

AETC Air Education Training Command

AF Air Force

AFFARS Air Force Federal Acquisition Regulation Supplement

AFI Air Force Instruction

AFMC Air Force Materiel Command

AFMCI AFMC Instruction

AFMCP AFMC Pamphlet

AFOTEC Air Force Operational Test and Evaluation Center

AFPD Air Force Policy Directive

AFSC Air Force Specialty Code

AICUZ Air Installation Compatible Use Zones

AIS Automated Information System

ALC Air Logistics Center

AMARG Aerospace Maintenance and Regeneration Group

AMRB Aircraft and Missile Requirements Board

AoA Analysis of Alternatives

APB Acquisition Program Baseline

AS Acquisition Strategy

ASIP Aircraft Structural Integrity Program

ASP Acquisition Strategy Plan

ASR Alternative Systems Review

BCA Business Case Analysis

BLRIP Beyond Low Rate Initial Production

CAE Component Acquisition Executive

CAG Cost Analysis Group

CAIG Cost Analysis Improvement Group

CAIV Cost as an Independent Variable

CAM Centralized Asset Management

CARD Cost Analysis Requirements Description

CBM+ Condition Based Maintenance +

CCA Component Cost Analysis

CCB Configuration Control Board

CCP Configuration Change Proposal

CDD Capability Development Document

CDR Critical Design Review

CDRL Contract Data Requirements List

CFT Contractor Field Team

CI Configuration Item

CJCSI Chairman Joint Chiefs of Staff Instruction

CJCSM Chairman Joint Chiefs of Staff Manual

CLIN Contract Line Item

CLS Contractor Logistics Support

COA Course of Action

COLT Customer Oriented Leveling Technique

CONOPS Concept of Operations

COTS Commercial off the shelf

CPD Capability Production Document

CPI Critical Program Information

CRRA Capability Review and Risk Assessment

CSB Configuration Steering Board

CSWS Contractor Supported Weapon System

CTE Critical Technology Elements

DAB Defense Acquisition Board

DAG Defense Acquisition Guide

DAU Defense Acquisition University

DCMA Defense Contract Management Agency

DFARS Defense Federal Acquisition Regulation Supplement

DID Data Item Description

DLA Defense Logistics Agency

DLR Depot Level Repair

DMAWG Depot Maintenance Activation Working Group

DMI Depot Maintenance Interservicing

DMSMS Diminishing Manufacturing Sources and Material Shortages

DOD Department of Defense

DODI Department of Defense Instruction

DOTMLPF Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities

DOT&E Director, Operational Test & Evaluation

DPEM Depot Purchased Equipment Maintenance

DRG Direct Reporting Group

DSOR Depot Source of Repair

DT&E Development Test and Evaluation

ECP Engineering Change Proposal

ECSS Expeditionary Combat Support System

EDMS Engineering Data Management System

EOA Early Operational Assessment

ERRC Expendability Recoverability Reparability Category

ENSIP Engine Structural Integrity Program

ESOH Environment, Safety, and Occupational Health

FAA First Asset Available

FAR Federal Acquisition Regulation

FCA Functional Configuration Audit

FDE Force Development Evaluation

FM Financial Manager

FMECA Failure Modes, Effects and Criticality Analysis

FMRC Flight Manual Review Conference

FMS Foreign Military Sales

FMSP Force Structure Maintenance Plan

FRACAS Failure Reporting and Corrective Action System

FOT&E Follow-on Operational Test and Evaluation

FRP Full Rate Production

FTA Failure Tree Analysis

FYDP Future Year Defense Program

GFP-MAT Government Furnished Property-Material

GIDEP Government Industry Data Exchange Program

GLSC Global Logistics Support Center

HSI Human Systems Integration

IAW in accordance with

IBR Integrated Baseline Review

ICA Independent Cost Analysis

ICD Initial Capabilities Document

ICE Independent Cost Estimate

ICS Interim Contractor Support

IETMS Interactive Electronic Technical Manuals

ILA Integrated Logistics Assessment

ILS Integrated Logistics Support

IMP Integrated Master Plan

IMS Integrated Master Schedule

IOC Initial Operational Capability

IOT&E Initial Operational Test and Evaluation

IPA Independent Program Assessment

IPPS Initial Provisioning Performance Specification

IPT Integrated Process Team

IRA Integrated Risk Assessment

ISP Information Support Plan

ISR In-Service Review

IUID Item Unique Identification

ITR Initial Technical Review

JCD Joint Capabilities Document

JCIDS Joint Capabilities Integration and Development System

JEDMICS Joint Engineering Data Management Information Control System

JOpC Joint Operations Concept

JPG Joint Programming Guidance

JROC Joint Requirements Oversight Council

JITC Joint Interoperability Test Command

KPP Key Performance Parameter

KSA Key System Attribute

LCCE Life Cycle Cost Estimate

LCL Life Cycle Logistics

LCMP Life Cycle Management Plan

LFT&E Live-Fire Test and Evaluation

LMI Logistics Management Information

LORA Level of Repair Analysis

LRIP Low Rate Initial Production

MAIS Major Automated Information System

MAJCOM Major Command

MDA Milestone Decision Authority

MDAP Major Defense Acquisition Program

MDS Mission Design Series

MEA Maintenance Engineering Analysis

MECHSIP Mechanical Systems Integrity Program

MIL-HDBK Military Handbook

MIL-STD Military Standard

MILCON Military Construction

MILSTRIP Military Standard Requisitioning and Issue Procedures

MIPR Military Interdepartmental Purchase Request

MNS Mission Need Statement

MOA Memorandum of Agreement

MOSA Modular Open Systems Approach

MRRB Maintenance Requirements Review Board

MS Milestone

MSD Milestone decision

MTA Maintenance Task Analysis

MTBF Mean Time Between Failure

NDI Non-Development Item

NEPA National Environmental Policy Act

NIMSR Non-consumable item material support request

OA Operational Assessment

OPR Office of Primary Responsibility

OSD Office of the Secretary of Defense

OSS&E Operational Safety, Suitability & Effectiveness

OT Operational Test(ing)

OTA Operational Test Agency

OT&E Operational Test & Evaluation

OTRR Operational Test Readiness Review

O&S Operations & Support

PBD Program Budget Decision

PBL Performance Based Logistics

PCA Physical Configuration Audit

PDAQ Product Data Acquisition

PDR Preliminary Design Review

PESHE Programmatic Environmental Safety & Health Evaluation

PEO Program Executive Officer

PHS&T Packaging, Handling, Storage, and Transportation

PICA Primary Inventory Control Activity

PIO Provisioning Item Order

PLM Product Lifecycle Management

PM Program Manager (now known as System Program Manager)

PMA/EMA Program Management / Expectation Management Agreement

PMD Program Management Directive

POE Program Office Estimate

POM Program Objective Memorandum

PPBE Planning, Programming, Budgeting and Execution

PPP Program Protection Plan

PPP Public-Private Partnership

PPS Provisioning Performance Schedule

PPSL Program Parts Selection List

PR Purchase Request

PRR Production Readiness Review

PRT Programmatic Risk Tool

PS Product Support

PSM Product Support Manager

PSMP Product Support Management Plan (now known as LCMP)

PTD Provisioning Technical Documentation

PWIG Product Improvement Working Group

RAM Reliability, Availability, and Maintainability

RAMS Repairable Asset Management System

RCM Reliability Centered Maintenance

RDEL Requirements Data Exchange List

REMIS Reliability and Maintainability Information System

RFP Request for Proposal

RFQ Request for Quotation

RIB Recoverable Item Breakdown

RIL Repairable Items List

RIIM Recoverable Item Inventory Manager

RLA Repair Level Analysis

RM Risk Management

RM&A Reliability, Maintainability, and Availability

RMS Reliability, Maintainability, and Supportability

ROE Rules of Engagement

ROM Rough Order of Magnitude

RSP Readiness Spares Package

RUL Remaining Useable Life

SAE Service Acquisition Executive

SAF Secretary of the Air Force

SAMP Single Acquisition Management Plan (now known as LCMP)

SATAF Site Activation and Fielding

SBSS Standard Base Supply System

EMD Engineering & Manufacturing Development

SDFP Supplemental Data for Provisioning

SDT Site Destination Transportation

SE Systems Engineering

SEP System Engineering Plan

SERD Support Equipment Recommendation Data

SFR System Functional Review

SLIM System Lifecycle Integrity Management

SMR Source Maintenance Recoverability

SOE System Operational Effectiveness

SOO Statement of Objectives

SORAP Source of Repair Assignment Process

SPG Strategic Planning Guidance

SPM System Program Manager

SRD Standard Reporting Designator

SRM Sustainment, Restoration & Modernization

SRR System Requirement Review

SSOR Strategic Source of Repair

SSR Supply Support Request

SSP Source Selection Plan

SSWG Supply Support Working Group

STA System Threat Assessment

SVR System Verification Review

SVV Software Verification and Verification

TAV Total Asset Visibility

TCTO Time Compliant Technical Order

TDP Technical Data Package

TDRS Technical Data Rights Strategy

TDS Technology Development Strategy

TEMP Test and Evaluation Master Plan

TES Test and Evaluation Strategy

TLCSM Total Life Cycle Systems Management

TMCR Technical Manual Contract Requirements

TO Technical Order

TOC Total Ownership Cost

TRA Technology Readiness Assessment

TRR Test Readiness Review

TSP Transition Support Plan

T&E Test & Evaluation

USC United States Code

V&V Verification and Validation

WBS Work Breakdown Structure

WSDC Weapon System Designator Code

WSSP Weapon System Support Program

**AUTOMATED TEST EQUIPMENT (ATE)** – A generic terminology used for separate or built-in equipment satisfying a diagnostic or condition-indicating test function and processing an automatic capability. ATE can be either mission equipment or support equipment

**AUTOMATIC TEST SYSTEM (ATS)** – Equipment, software, and data items required to operate and maintain ATE and software used thereon. This system includes test equipment, interface test adapters, test software, calibration software, compilers, programming information, and tester data but not offline automatic data processing equipment (ADPE) used to support software.

**COMMON SUPPORT EQUIPMENT (CSE)** – Equipment item applicable to more than one system, subsystem or item of equipment; has a national stock number assigned to it and is currently in the Air Force inventory.

**COMPUTER RESOURCES**: Computer Resources includes the facilities, hardware, software, documentation, manpower, and personnel needed to operate and support computer systems and the software within those systems. Computer resources include both stand-alone and embedded systems. This element is usually planned, developed, implemented, and monitored by a Computer Resources Working Group (CRWG) or Computer Resources Integrated Product Team (CR-IPT) that documents the approach and tracks progress via a Computer Resources Life-Cycle Management Plan (CRLCMP). Developers will need to ensure that planning actions and strategies contained in the ILSP (Integrated Program Summary (IPS) for space), and CRLCMP are complementary and that computer resources for the operational software, and ATE software, support software, is available where and when needed.

**CONTRACTOR-FURNISHED EQUIPMENT (CFE)** – Items acquired or manufactured directly by the contractor and provided to the government during the execution of a contractor.

**CORE - CORE DEPOT MAINTENANCE** - Core Depot Maintenance is Organic Depot Capability required to assure mission support for the weapon system designated for the Joint Chiefs of Staff (JCS) contingency scenario(s). Core logistics capabilities must be performed at government-owned, government-operated facilities of the Department of Defense with government employee and government-owned equipment including government-owned, government operated facilities of a Military department.

**DEFENSE ACQUISITION BOARD (DAB)** – Senior level forum for advising the Under Secretary of Defense (Acquisition, Technology, and Logistics) (USD (AT&L)) on critical decisions concerning designated acquisition programs. The DAB is composed of the Department’s senior officials, service secretaries, as well as a user representative (Vice Chairman, Joint Chiefs of Staff)

**DEPOT SOURCE OF REPAIR (DSOR)** is the decision process and mandatory activity in logistics support planning for systems and equipment that will require depot maintenance. The DSOR process consists of the SSOR, SORAP and DMI. The SSOR is the Strategic Source of Repair decision which strategically positions the asset for depot repair. The SSOR performs an initial core assessment, identifies an initial candidate depot and identifies the program for impact on 50/50. The SORAP confirms the core determination and a candidate depot and is initiated when more information is available; normally before Milestone B. The second phase of SORAP is the organic versus contract source determination. This is made by the acquiring Military Service using a service-approved decision analysis. The last step in the DSOR process is consideration of interservice depot maintenance support known as the DMI review. The DMI is required regardless of the outcome of the contract versus organic selection.

**DESIGN INTERFACE:** Involves the relationship of logistics-related design parameters, such as Reliability and Maintainability (R&M), to readiness and support resource requirements. These logistics-related design parameters are expressed in operational terms rather than inherent values and specifically related to System Readiness Objectives (SROs) and support costs of the materiel system.

**ENVIRONMENT, SAFETY, and OCCUPATIONAL HEALTH (ESOH):** Environmental factors concern water, air, and land and the interrelationships which exist among and between water, air, and land and all living things. Safety factors are design and operational characteristics that minimize the possibilities for accidents or mishaps to operators or which threaten the survival of the system. Occupational Health factors are design features that minimize risk of injury, acute and/or chronic illness, or disability, and/or reduced job performance of personnel who operate, maintain, or support the system.

**FACILITIES**: Includes the permanent, semi-permanent, or temporary real property assets required to operate and support the materiel system, including conducting studies to define types of facilities or facility improvements, locations, space needs, utilities, environmental requirements, real estate requirements, and equipment.

**GOVERNMENT-FURNISHED PROPERTY (GFP-MAT)** – Property (material classification) in the possession of or directly acquired by the Government and subsequently furnished to the contractor for performance of a contract (integration into the system or deliverable end-item).

**GROUND SUPPORT EQUIPMENT (GSE) -** Equipment that is required to directly assist in supporting weapon systems, subsystems and equipment, or provide a service to, or are an aid in performing maintenance on weapon systems whole on the ground. This equipment does not have test, measurement, or diagnostic capabilities as its principal function.

**HABITABILITY:** Factors of living and working conditions that is necessary to sustain the morale, safety, health, and comfort of the user population which contribute directly to personnel effectiveness and mission accomplishment, and often preclude recruitment and retention problems.

**HUMAN FACTORS:** The comprehensive integration of human capabilities and limitations (cognitive, physical, sensory, and team dynamic) into system design, development, modification and evaluation to optimize human-machine performance for both operation and maintenance of a system. Human Factors Engineering designs Systems that require minimal manpower, provide effective training, can be operated and maintained by users; and are suitable and survivable.

**HUMAN SYSTEMS INTEGRATION:** A process to ensure systems are designed and developed that effectively and affordably integrate with human capabilities and limitations. The HSI process considers human factors engineering, manpower, personnel, training (MPT) issues, and environment, safety and occupational health (ESOH) aspects along with survivability and habitability throughout system design, development, fielding and sustainment.

**INDEPENDENT COST ANALYSIS** - a cost analysis conducted by an Independent Cost Analysis Team for the Space MDA

**INDEPENDENT PROGRAM ASSESSMENT** - conference where an Independent Program Assessment Team (IPAT) assesses advancement to the next space program phase, on behalf of the Space MDA

**MAINTENANCE PLANNING**: The process conducted to evolve and establish maintenance/support concepts and requirements for the life cycle of a materiel system.

**MANPOWER:** A critical resource that supports an approved program. It is not a program by itself and should not be manipulated separately from the program it supports.

**MANPOWER & PERSONNEL**: The process of identifying and acquiring military and civilian personnel with the skills and grades required to operate and support a materiel system over its lifetime at peacetime and wartime rates.

**MANPOWER REQUIREMENT:**  A statement of manpower needed to accomplish a job, workload, mission, or program. There are two types of manpower requirements: funded and unfunded. Funded manpower requirements are those that have been validated and allocated. Unfunded requirements are validated manpower needs but deferred because of budgetary constraints.

**MILITARY CONSTRUCTION (MILCON:** Appropriations that fund major projects such as bases, schools, missile storage facilities, maintenance facilities, medical/dental clinics, libraries, and military family housing.

**PACKAGING, HANDLING, STORAGE & TRANSPORTATION (PHS&T)**: The resources, processes, procedures, design considerations, and methods to ensure all system, equipment, and support items are preserved, packaged, handled, and transported properly. This includes environmental considerations, equipment preservation requirements for short- and long-term storage, and transportability.

**PECULIAR SUPPORT EQUIPMENT (PSE)** – An equipment item applicable to one system, subsystem or item of equipment. An equipment item that is being introduced into the Air Force inventory for the first time; or a CSE item reconfigured for a specific function or purpose.

**PERSONNEL:** The human aptitudes, skills, and knowledge, experience levels, and abilities required to operate, maintain, and support the system at the time it is fielded.

**PRODUCT DATA ACQUISITION (PDAQ):** A central USAF web site that hosts information about product data acquisition managed by AF/A4. It can be accessed at: <https://www.my.af.mil/gcss-af/USAF/ep/browse.do?programId=tA4057E1F2A54D0C3012A8F8877C80CA5&channelPageId=s2D8EB9D629AAD6C8012A3858765B1825>

**PRODUCT SUPPORT ELEMENTS:** A traditional group of items that taken together constitute Integrated Logistics Support. These include: Sustaining/Systems Engineering; Maintenance Planning & Management; Manpower and Personnel; Supply Support; Support Equipment/Automatic Test Systems; Technical Data Management/Technical Orders; Training; Computer Resources; Facilities; Packaging, Handling, Storage, and Transportation (PHST); Protection of Critical Program Information & Anti-Tamper Provisions and Design Interface.

**PRODUCT SUPPORT MANAGER:** The PSM is an individual with responsibility to lead the development, implementation, and top-level integration and management of all sources of support to meet Warfighter sustainment and readiness requirements. Additional guidance for PSM implementation can be found in the AFGM and at the Defense Acquisition University PSM web site: <https://acc.dau.mil/psm>.

**PUBLIC PRIVATE PARTNERSHIP:** A government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies.

**PRODUCT SUPPORT INTEGRATOR:** The single point responsible for integrating the activities of the product support providers. Normally, this is a government function.

**SOURCE of REPAIR ASSIGNMENT PROCESS (SORAP):** Process used to determine if the permanent source for accomplishment of a depot level maintenance workload generated by operational equipment will be contract or organic, or some combination. SORAP is required for new starts; workload shifts, modifications, and modification follow on workloads.

**SUPPORT EQUIPMENT**: All equipment (mobile or fixed) required to support the Operation and Maintenance (O&M) of a materiel system. This includes associated multi-use support items, ground-handling and maintenance equipment, tools, meteorology and calibration equipment, and manual/Automatic Test Equipment (ATE). It includes the acquisition of Product Support for the support equipment itself.

**SUPPLY SUPPORT**: The process conducted to determine, acquire, catalog, receive, store, transfer, issue, and dispose of secondary items necessary for the support of end items and support items. This includes provisioning for initial support as well as replenishment supply support, and the acquisition of logistics support for pre-operational and test equipment.

**SURVIVABILITY:** The characteristics of a system that reduce risk of fratricide, detection, and the probability of being attacked; and that enable the crew to withstand man-made and natural hostile environments without aborting the mission or suffering acute and/or chronic illness, disability, or death

**TECHNICAL DATA**: Information, regardless of the form or method of the recording, of a scientific or technical nature, including computer software documentation. It includes information required for the design, development, production, manufacture, assembly, operation, training, testing, repair, maintenance, or modification of defense articles. Relative to software it includes information on system functional design, logic flow, algorithms, application programs, operating systems, and support software for design, implementation, test operation, diagnosis, and repair. It does not include computer software or data incidental to contract administration or general scientific, mathematical, or engineering principles commonly taught in schools or information in the public domain.

**TECHNICAL DATA – PRODUCT DATA** – All data created as a consequence of defining (requirements), designing, testing, producing, packaging, storing, distributing, operating, maintaining, modifying and disposing of a product. (For ECSS, product data is a collection of information that defines the form, fit, function, procurement, operation, sustainment, manufacturing, and maintenance of items used to support the Air Force.)

**TECHNICAL DATA PACKAGE –** A technical data package (TDP) typically consists of 2D drawings, 3D models, specifications, associated lists, software documentation, interface control documents, and engineering product structure

**TEST, MEASUREMENT, and DIAGNOSTIC EQUIPMENT (TMDE)** - Devices used to maintain, evaluate, measure, calibrate, test, inspect, diagnose, or otherwise examine materials, supplies, equipment, and systems to identify or isolate actual or potential malfunction, or decide if they meet operational specifications established in technical documents. ANSI/NCSL Z540-1-1994 and ISO 17025 refer to this equipment as “measuring and test equipment.”

**TRAINING:** The level of learning required to adequately perform the responsibilities designated to the function and accomplish the mission assigned to the system.

**TRAINING & TRAINING SUPPORT:** The processes, procedures, techniques, training devices, and equipment used to train civilian and active duty and reserve military personnel to operate and support a materiel system. This includes individual and crew training; new equipment training; initial, formal, and On-The-Job (OJT) training; and Logistics Support (LS) planning for training equipment and training device acquisitions and installations.

*For questions or comments about this tool, please contact AFMC/A4U* *AT:*

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