INDEPENDENT LOGISTICS ASSESSMENT HANDBOOK

Department of the Navy

Guide for Conducting

Independent

Logistics Assessments

NAVSO P-3692
June 2017

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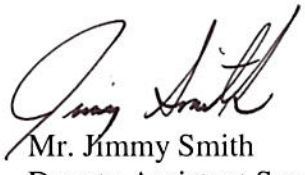
Foreword

Department of Defense (DoD) policy requires program managers to ensure system performance, affordability, cost and schedule are continuously assessed and used as key factors in making program tradeoffs and decisions. It is incumbent upon the Milestone Decision Authority to validate that systems will meet established performance requirements as well as total ownership cost targets at major program reviews and milestone decision points.

Independent Logistics Assessments (ILAs) validate programs' planning and implementation of integrated product support, and ability to meet established performance and sustainment requirements. Results of ILAs are primary inputs to milestone and other decision reviews, to include corresponding gate reviews. Reviews conducted after the Full Rate Production (FRP) or Full Deployment Decision (FDD) throughout sustainment will provide leadership with a means to compare actual versus expected performance.

ILAs are required by statue, Public Law 112-81, Sec. 832, and implemented in accordance with DoD and Department of Navy (DON) Policy. The handbook was developed to assist program managers and MDAs in meeting these requirements and provides a uniform and systematic approach in preparing for ILAs. Additionally, it outlines specific evaluation criteria for use by assessment teams and provides program managers with a framework for structuring and executing successful logistics support programs throughout a system's life cycle. Finally, the handbook incorporate lessons learned and recent revisions to Public Law and policy since its last update in 2012. While there are no significant changes to the ILA process, there is a major revision to the Post FRP/FDD assessment criteria, separating it from the acquisition phase assessment criteria, for ease of use and tailorability by the fleet and/or end user to support unique and centric requirements for our System Commands.

Life Cycle Sustainment decisions have far reaching impacts on readiness, cost, system effectiveness and most importantly, the men and women in uniform who are operating today's complex, technologically advanced weapon systems. The ILA Handbook is a critical sustainment tool for all DON Acquisition Category programs to develop and sustain affordable and operationally effective systems in support of the warfighter. Use of the handbook will ensure the integrity and thoroughness of the ILAs, which provide valuable information to the milestone decision authority, user community, and program office regarding the performance of their sustainment programs.



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Deputy Assistant Secretary of the Navy
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Introduction

This handbook was developed and coordinated through the Department of Navy (DON) Independent Logistics Assessment (ILA) Steering Group, which includes representatives from the Deputy Assistant Secretary of The Navy (Expeditionary and Logistics Management) (DASN(ELM)), Deputy Chief of Naval Operations (DCNO) for Fleet Readiness and Logistics (N4), Assistant Deputy Commandant for Installations and Logistics, Hardware Systems Commands (SYSCOM), Program Executive Offices (PEOs) and the Naval Supply Systems Command. The DON ILA Steering Group is responsible for the content and management of this handbook. Users of the handbook are invited to send suggested improvements to the handbook and/or the ILA process (including changes, updates, additions and deletions) to their respective ILA Steering Group representative for future consideration.

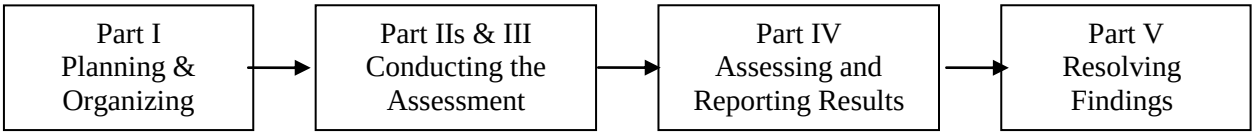
This handbook provides detailed guidance to facilitate a comprehensive evaluation of the adequacy of a program's Integrated Product Support (IPS) planning, management, control, execution and resources. The handbook also provides assessment criteria to be used for ILAs conducted after the Full Rate Production (FRP) decision/Full Deployment Decision (FDD) and throughout sustainment. The methods and checklists in this handbook were designed to implement the requirements of changes in Public Law, DoDI 5000.02 series, SECNAVINST 5000.2 and SECNAVINST 4105.1, emphasizing the user as the ultimate customer of the acquisition process.

Per SECNAVINST 4105.1, individual Program Executive Office (PEOs) and SYSCOM Commanders are responsible for ensuring that an ILA is accomplished on all Acquisition Category (ACAT) programs prior to Milestones B, C and the FRP decision or FDD. They should also ensure a review of the status of IPS elements occur after FRP or FDD and periodically thereafter throughout sustainment. The PEO or SYSCOM Commander (or designated representative) shall certify the status of the sustainment program prior to the milestone decision and base the certification on the results of the ILA as documented in a formal, written report. Results of these assessments are the primary input into the related DON gate decision meetings as defined in SECNAVINST 5000.2 for those programs subject to the two pass/six gate review process.

ILAs for ACAT I and II programs will also be conducted periodically to assess the product support health of systems that are Post-FRP/FDD. These ILAs will be conducted on a periodic basis, and should be scheduled to coincide with other sustainment related reviews, as appropriate. The default periodicity for conducting Post-FRP/FDD ILAs is two years following the FRP/FDD decision and every five years thereafter; recognizing that there are conditions that may trigger an ILA earlier (as identified in Part III). For ILAs conducted after the FRP decision/FDD and the respective sustainment gates, the report provides a status of the effectiveness and implementation of sustainment planning efforts that were conducted during the acquisition phase to the fleet and resource sponsor and a plan of corrective action for any noted deficiencies. The Post-FRP/FDD assessment criteria are separated into standalone criteria, contained in Part III. This places more emphasis on the user team as key assessor.

While the assessment process is designed to provide input to the Milestone Decision Authority (MDA), the ultimate result of this process is to continuously improve supportability and reduce the operations and support cost of equipment and weapons systems delivered to the user. Because of this, the timeframe between assessments shall not exceed five years. If the timeframe between milestones or the FRP/FDD decision exceeds five years, an ILA shall be conducted prior to the five-year mark and coincide with major systems engineering reviews such as the

Critical Design Review (CDR) or Production Readiness Review (PRR). This is especially true for ship programs where the period between Milestones B and C may exceed ten years.



This handbook is divided into five parts to coincide with the five process steps identified above. The ILA will be conducted per the above process and use an independent team of subject matter experts. Each part provides detailed guidance to the program team, the ILA team leader and ILA team members on completing that portion of the ILA process, as well as respective responsibilities to assist participants in completing ILA functions. Parts II and III of this Handbook provide a baseline matrix of assessment criteria for use as a tailorable guide in performing assessments. The subject matter experts must not solely rely on the Assessment Criteria in Parts II and III, but should consider related issues/questions using their own judgment and expertise. All assessors should examine program requirements, the contract/Request for Proposal (RFP) (including Contract Data Requirements Lists, Statement of Objectives, Statement of Work (SOW) etc.,) and the sufficiency of funding and scheduling for their respective product support element(s). The ILA team should identify all areas of product support risk and recommend corrective actions. The ILA team will develop a summary assessment of the current product support risk(s) and recommend to the PEO or SYSCOM Commander whether the program's product support planning is sufficient to proceed, and if so under what conditions or circumstances.

Relationship of ILAs to Other Assessments

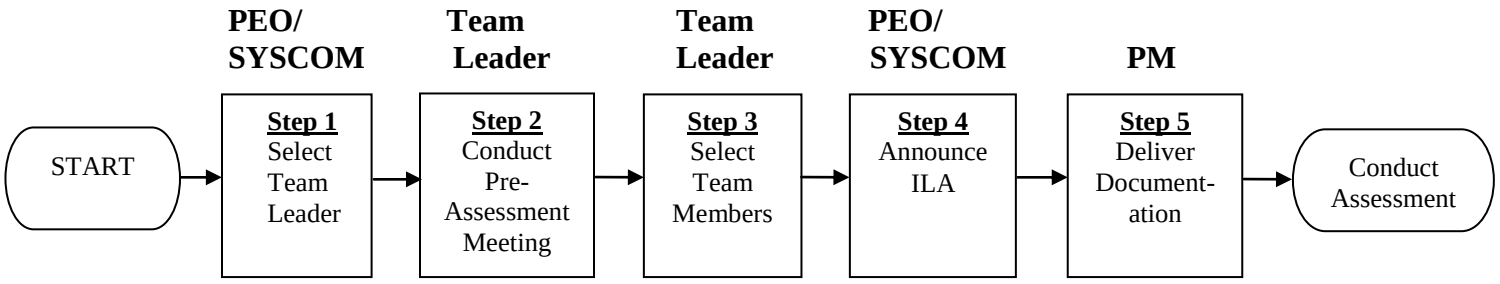
As stated in the SECNAVINST 4105.1 and this document, ILAs during the acquisition phases are scheduled prior to Milestones B, C and the FRP decision/FDD in a time frame that allows the report to be disseminated to the stakeholders and decision makers prior to any milestone decision meetings. There are also several other assessments and reviews between milestones, such as the Systems Engineering Technical Reviews (SETR), that feed into the milestone and gate decisions. These assessments and reviews should be considered when scheduling the ILA, since information from the different assessments can complement each other. For example, the Milestone C ILA may occur during the same time frame as the PRR and can provide useful insight to the ILA team. While SETRs assess the contractor’s planning and ILAs assess the program office’s planning, the teams should share information since data available to one team may not be readily available to the other. Additionally, the information from the ILAs should be used as the primary sustainment planning input to the corresponding gate review. For ILAs conducted after the FRP decision/FDD, the ILA can be scheduled to coincide with an existing sustainment review where the operator and maintainer are already present and available to coordinate with ILA team.

PART I - Planning and Organizing

Objective

The objective is to ensure the required preparation takes place in sufficient time to properly initiate the ILA.

1.1 Process



1.2 Process Description

Step 1 - Select Team Leader
The PEO, SYSCOM Commander or designee is responsible for assigning a qualified team leader and providing resources to establish an assessment team. The team leader is selected based on the requirements of SECNAVINST 4105.1 which are identified below in Table 1: ILA Team Qualifications.

Step 2 - Conduct Pre-Assessment Meeting
The team leader conducts a pre-assessment meeting with the program manager, Product Support Manager (PSM), logistics manager or designee addressing the following:

- Confirm the responsibilities of the program office, team leader, and team members
- Confirm the purpose, scope, and timing of the review
- Discuss specific review procedures
- Discuss tailoring of criteria. For example, in the acquisitions for Military Sealift Command operated and life cycle managed ships, the program office uses various Military Sealift Command policies and procedures in generating the acquisition and support requirements that the ships will be built to rendering some criteria as Not Applicable
- Coordinate the availability and location of IPS and program documentation to include use of an Integrated Digital Environment/Share Site
- A tailored listing of IPS and program documentation prepared prior to the assessment for distribution to team members based on Part II and Appendix A
- Identify ILA team funding requirements
- Clarify specific logistics assessment schedule of events/agenda
- Identify the location of all assessment activities
- Identify program office personnel to respond to ILA team member questions
- Identify security requirements and arrangements, as well as access to classified material
- Discuss the conduct of the assessment, including development of an overall program brief
- Discuss the timing and issuance of draft and final reports
- Discuss post-review procedures to include follow-up on identified issues

- Discuss certification criteria and rating process
- Discuss issuance of an IPS certification letter (certification letter stating the IPS program to be fully, conditionally, or not certified)
- Milestone Documentation Identification Tool https://dap.dau.mil/mdid/Pages/Default.aspx can be used to assist in planning

Step 3 - Select Team Members
The designated team leader in coordination with the PEO/SYSCOM ILA Lead is responsible for selecting team members. The team leader and team member qualifications are identified in Table 1 below:

Table 1: ILA Team Qualifications

Qualification	Team Leader (Government Employee)	Team Member
Independence:	Must be independent of the program. Not active nor has been recently active in the management, design, test, production or logistics planning of the program, whether from the program office, supporting field activity, or a member of a contractor activity.	Must be independent of the program. Not active nor has been recently active in the management, design, test, production or logistics planning of the program, whether from the program office, supporting field activity, or a member of a contractor activity.
Experience:	Participation in at least one ILA as a team member.	Must have experience in the functional area being assessed.
Education:	Defense Acquisition Workforce Improvement Act Level III	Defense Acquisition Workforce Improvement Act Level II or equivalent certification for civilians. Military members are not required to be DAWIA certified or have an equivalent certification.

Step 4 - Announce ILA
Official correspondence such as an e-mail announcing the ILA should be sent by the PM or other representative of the PEO or SYSCOM Commander stating the dates of the ILA, the scope of the ILA, identification of team members, documentation request list, meeting site, schedule, agenda, security and Point of Contact (POC) information. This correspondence should be distributed to the participants and stakeholders at least four weeks prior to the start of the ILA.

- For Navy programs, stakeholders are DASN(ELM), the respective Product DASN (PDASN), DASN(EI&E), and Deputy Chief of Naval Operations for Fleet Readiness & Logistics (N4 and N46)
- For Marine Corps programs, stakeholders are DASN(ELM), Headquarters Marine Corps (Installations and Logistics (HQMC(I&L)), Marine Corps Logistics Command (LOGCOM), and Marine Corps Systems Command (MARCORSYSCOM)
- For Joint programs, in addition to the Navy and/or Marine Corps stakeholders, other services should be afforded the opportunity to participate in the ILA and be provided courtesy copies of ILA report(s) to their PEO and/or Acquisition Executive.

Step 5 - Deliver Documentation
The program office shall provide requested documentation to the ILA team leader as previously agreed to, but typically at least one week before the opening brief. Documentation should reflect the most current version identified during the pre-assessment and subsequent meetings. The Documentation Request List (Appendix A) outlines typical documentation requirements that should be tailored for each ILA during the pre-ILA meeting to reflect program specifics and the upcoming milestone. The scope and depth of logistics support information in these documents can vary significantly from program to program and by acquisition phase. Some programs may be in a source selection process, or have sensitive/proprietary data issues. Team leaders need to identify team member information (e.g., Government, contractor) to the program office to verify if there are sensitive/proprietary data issues and ensure non-disclosure agreements are completed as required. Support contractor personnel should not be disqualified from participating as ILA team members if the proper disclosures are followed and they are not from a competing/interested source.

1.3 Process Deliverables

- Team member listing
- ILA announcement/schedule
- Program documentation

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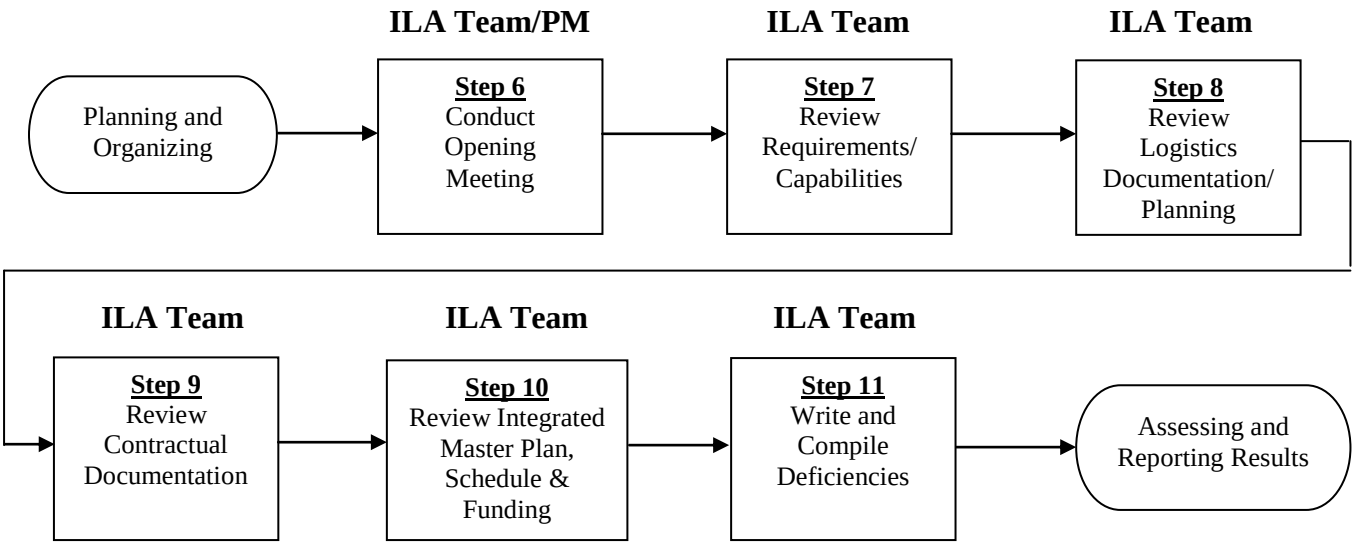
PART II - Conducting the Assessment

Objective

Part II identifies the basic methodology for conducting a successful ILA and provides standard assessment criteria for use. These criteria are neither platform nor system specific; rather, they are critical evaluation factors, which should be tailored/augmented to the specific program being assessed. Individual ILA team members will conduct their assessments using the criteria contained in paragraph 2.4 and any other SYSCOM or PEO specific criteria, as assigned by the ILA team leader.

2.1 Process



2.2 Process Description

Step 6 - Conduct Opening Meeting
The opening meeting provides the logistics assessment team with a foundation of information regarding program background, current status, logistics structure and a review of what is expected during the assessment. It is important to recognize that assessment team members are not familiar with the subject program and the opening presentation is the best opportunity to impart the needed information/background to understand the program in its proper context. The opening presentation consists of the following:

Program presentation. The purpose of the program presentation, normally presented by the program manager, deputy program manager or designee, is to impart a basic understanding of the acquisition program. It should address:

- General description of the system, to include physical as well as functional
- Scope of the ILA (a clear description of the scope of the program being assessed, including hardware/software elements)
- System interfaces
- Planned operational use of the system

- Support strategy, e.g., Life Cycle Sustainment Plan (LCSP), including unique considerations and performance objectives, metrics, supportability requirements and assessment strategy
- Hardware, if available
- Current status of the program, including any pertinent history and program peculiarities
- Size of the program in terms of number of units and dollars
- Delivery schedules (end items and support elements)
- Program funding status
- Organizational structure of the program office
- Acquisition and sustainment strategy, including contract status and milestones
- Status of the program's documentation (outstanding items from the documentation request)
- Program office and logistics points of contact
- Identification of any developing or signed Program Manager Warfighter Agreements, Performance Based Agreements (PBAs), or Operational Level Agreements /Service Level Agreements as appropriate
- Identification of any Memorandum of Agreement/Understanding (MOA/MOU), Expectation Management Agreements, etc. with participating or supporting organizations

Logistics presentation. The logistics presentation, normally presented by the program's PSM or logistics lead, addresses each of the areas of supportability that will be reviewed by the ILA team. At a minimum, it should address:

- Structure of the program support organization
- Status of supportability documentation (e.g., approval status)
- Information on the status of each Product Support element.
- Contracting approach
- Results of program Business Case Analyses (BCA)
- Support agreement strategy and status (e.g. extent of Performance Based Logistics (PBL) life cycle support (industry/organic)
- Top-level schedules and milestones for each IPS element
- Status of detailed supportability tasks, schedules and milestones tied to the Integrated Master Schedule (IMS) and LCSP for each IPS element
- Logistics and program risk assessment
- Life Cycle Cost Estimate (LCCE) and Logistics Requirements Funding Summary (LRFS)
- Names and phone numbers of program office counterparts
- Budgets (identifying the required, funded and delta amounts) for each product support element
- Data rights requirements and options pursued/obtained to ensure logistics supportability products and infrastructure can be developed
- Product support arrangements
- Any other special interest items

ILA Team presentation. The purpose of this presentation, presented by the ILA team leader, is to provide information to the ILA team members and program personnel on the conduct of the review. This presentation should address the following:

- A review of the responsibilities of the team leader and team members
- Specific logistics assessment schedule of events/agenda
- Instructions on documenting deficiencies and desired format
- Guidance on determining the timeframe in which recommended actions need to be completed
- Post-review follow-up and certification procedures

Step 7 - Review Requirements/Capabilities

User needs and capabilities form the basis for the support system performance requirements. ILA team members must familiarize themselves with not only the requirements but also the established metrics for measuring attainment of these user needs. Team members must

understand and focus on user requirements when assessing the program using the individual "Assessment Criteria."

Review the basic program requirements, including: Performance Agreements, Key Performance Parameters (KPPs) Key Systems Attributes (KSAs), and other critical system parameters in the Initial Capabilities Document (ICD), CDD and CPD, depending on the program phase, and the Acquisition Plan (AP) or Acquisition Strategy (AS).

Step 8 - Review Logistics Documentation/Planning
Review the AS, LCSP, Product Support Management Plan, Reliability Program Plan and associated Fielding Plan to ensure the basic requirements have been translated into logistics requirements. The LCSP should also provide a mapping to the primary support product/technical documentation, logistics schedules, and be supported by the logistics budget.

Determine if the performance agreements, specified supportability KPPs and critical system parameters in the ICD/CDD/CPD can be met from a supportability standpoint. Depending on program phase, the information required to perform this assessment can generally be found in Reliability, Availability and Maintainability (RAM) models and predictions, development and operational test information documents, RAM/Built-In-Test (BIT) requirements in the contract/SOW, RAM analyses and test results, and in Chief of Naval Operations (CNO) sponsored tests, etc. If the RAM KPPs and critical system parameters of the ICD/CDD/CPD are not met, then the IPS areas must be reassessed to determine what impact the lower RAM numbers will have on the supportability of the system. For instance, if the actual reliability number does not meet the reliability stated in the CPD and spares are being reviewed, then the originally calculated requirements for spares may not be correct and may need to be recalculated. If manpower is being reviewed, the manpower analysis may be suspect since it does not take into account more frequent failures and longer times to repair and maintain systems. If there is an impact, assess risk to the program and document a finding or Opportunity For Improvement (OFI).

Review the primary and supporting documentation for each IPS element (e.g., computer resources) to ensure logistics requirements are further detailed and required analyses have been performed. This should include a review of the LRFS and associated funding documents to ensure funding requirements for each IPS element are appropriately identified, funding is available, and shortfalls identified. Ensure each IPS element is funded and funding correlates to the appropriate tasking year per the IPS IMS. The absence of an approved plan will not be the sole basis for assigning a logistics certification rating of Red or Yellow.

ILA Criteria Requiring Review. The following IPS elements require review during an ILA regardless of the support strategy. The ILA team lead may tailor the criteria as appropriate based on the program's history or other supporting artifacts.

1. Product Support Management
2. Design Interface
3. Sustaining Engineering
4. Supply Support
5. Maintenance Planning and Management
6. Packaging, Handling, Storage and Transportation
7. Technical Data
8. Support Equipment and Test Equipment
9. Training and Training Support
10. Manpower and Personnel
11. Facilities and Infrastructure
12. Computer Resources and Software Support
13. Product Support Budgeting and Funding
14. Environment, Safety and Occupational Health

Step 9 - Review Contractual Documentation
Review the contract/tasking to ensure appropriate requirements have been identified.

The solicitation package or contract should be assessed for adequacy of supportability requirements. The review should include an assessment of the adequacy of:

1. Product support and related RAM requirements
2. Required IPS and related RAM analyses and the use of their results to impact design
3. Compliance with critical completion and delivery dates

The solicitation package for the next acquisition phase, if available, should also be reviewed to ensure that it is adequate to meet the requirements of the ICD/CDD/CPD (as appropriate) and other pertinent program documentation such as the LCSP. This is critical for ensuring that planning is complete. Similarly, field activity tasking documents (in place and proposed) should be reviewed to ensure the Government supporting activities are appropriately engaged, tasked and funded.

Step 10 - Review Integrated Master Plan (IMP), Schedule and Funding
Review product support element assessment criteria against the IMP and master program schedule. Review reasonableness of the tasks and likelihood of completion of each product support task within the allocated schedule.

A program's overall schedule reflected in the IMS can range from being an imposed schedule to one that has some flexibility. The logistics support tasks for each IPS factor must be planned, scheduled and integrated with other program activities. The sequence and dependencies of one task upon another must be included in determining schedule realism. The integrated master program schedule timelines must be achievable within funding constraints when considering a bottom-up view of all required detail tasks and their inter-dependencies. The LCSP should contain the detailed Plans of Actions and Milestones (POA&M) for each IPS element for focused IPS management planning/implementation.

One or more project management charting tools are commonly used to schedule and organize program tasks, graphically showing their schedule and dependencies. The effectiveness of a program's LCSP must be reviewed in context of the overall program schedule and the design/development milestones. However, logistics schedules that are allocated from programmatic top-down requirements may not be achievable within the allocated funding and manpower, especially when considering logistics ability to influence the design for optimized supportability. The program IMS must also factor in the schedule requirements for each logistics factor, based on a bottom-up task analysis to ensure realism. Otherwise, logistics efforts typically become focused on documenting the design when they should be focused on influencing the design.

The detailed logistics support tasks developed and integrated into the overall program integrated master schedule must be realistically achievable and consider the sequence of all dependent and interconnected tasks to minimize program risks. All tasks feeding into achieving product support milestones and assessments should meet at those milestone/assessment nodes. The critical paths should be reviewed to identify any logistics tasks, and used to identify the actual start/end dates to review progress of each task against its schedule, including the timeliness of the logistics tasks. Schedules, for example, should reflect tasks such as BIT/testability design; maintainability analyses/verifications; Failure Modes, Effects and Criticality Analysis (FMECA); special test equipment identification, and development of the embedded and on-board training capabilities. These tasks should be reviewed to ensure that they are completed by the critical design review, thus allowing adequate time to develop and prove/validate the Interactive Electronic Technical Manual (IETM)/support documentation before completion of tasks associated with the development, coordination and approval of the school-house training

curriculum. Optimistic, success-oriented schedules that do not reflect realistic conditions will mask program cost growth and schedule delays.

Step 11 - Write and Compile Findings
ILA team members will conduct their review using the assessment criteria contained in paragraph 2.4 of this handbook as tailored and assigned by the ILA team leader. Team members will annotate the IPS elements being evaluated with any findings, the impact if not corrected, the recommended action(s), and whether the program representative concurs or does not concur.[1] Each team member should coordinate with their program office counterpart(s) upon formulation of initial findings or opportunities for improvement to ensure the facts are understood. A summary report of the results of each element assessed, including all deficiencies, will be submitted to the ILA team leader. As part of their responsibilities, the team leader must review all issues or discrepancies turned in by the team members for accuracy and ensure the proposed rating given by the team member is commensurate with the rating criteria in this guide. The team leader may change a rating and/or modify the content of an issue if the facts are not correct and the rating is not in accordance with this handbook or the SECNAVINST 4105.1. Only after the team leader has vetted the issues with the program office should they be formalized. Appendix B provides required ILA Certification and Rating Criteria. Appendix C provides ILA Report Content. Report format should be in accordance with local PEO or SYSCOM instruction or as directed by the team leader if none is prescribed.

2.3 Process Deliverables

- Findings and opportunities for improvement

2.4 Acquisition Phase Assessment Criteria

The assessment criteria contained in the following tables should be used as a guide to assess the planning and status of the sustainment program for the system under review, regardless of the support strategy (e.g., PBL, traditional support). These criteria are derived from both policy and best practices, which have been proven to produce optimal supportability. They are not platform specific. Platform or SYSCOM unique requirements should be used to supplement or tailor these criteria per SECNAVINST 4105.1. Additionally, varying program requirements and acquisition strategies may require further tailoring of the criteria, as they may not always fit all program unique requirements. It should also be noted that these criteria are used to holistically assess the supportability of a program, not just the functions that fall under the purview of the logistics manager. Many disciplines and organizations impact the ability of the PSM or logistics manager to execute a successful supportability program (e.g., with conflicting requirements, lack of funding, inadequate design, etc.). These factors need to be considered as part of the assessment, and negative impacts documented. While there are references to source documents identified in the assessment criteria, they are not an inclusive set of DOD, DON and SYSCOM documents. Additionally, the revision status is not identified to maintain currency, so the most current revision should be used. Additional details on these product support elements can be found in the Defense Acquisition Guide.

[1] Periodic progress briefs are to be conducted during the ILA at a time agreed upon by the ILA team leader and the program office representative. The purpose is to brief the program office of any issues noted during the assessment as well as to resolve any remaining issues from previous progress briefs. During these briefs, the ILA team leader will:

- Discuss new issues with the program manager or program office representative
- Obtain the program manager’s or program office representative's concurrence or non-concurrence on each finding as well as on the team leader's logistics certification recommendation
- Follow-up on open issues from previous progress briefs, as necessary

The Milestone columns in the Assessment Criteria tables are marked to indicate at what milestone the criteria will be applied for a typical program with program initiation at Milestone B (Milestone A for ships). The milestone columns are either marked with an I, IP, F, or U. Definitions for each are provided below.

- I (Initiated) – The strategy and approach have been defined and documented in program plans to include the IMS, and funding is identified in the LRFS. The activity/product is included in contractual documentation (RFP/contract/tasking orders, etc.)

- IP (In process) – Efforts for the activity or product are in process, to include analyses, assessments, studies, surveys, etc. Predecessor activities have been completed and precursor actions have been initiated or are in process as appropriate

- F (Finalized) – The activity or product has been completed and is finalized, and has resulted in approval or decision by the approving/decision authority. The activity/product may also be in a completed state but not approved if a pending decision or approval will not impact dependent decisions or activities and the effort will be finalized prior to the milestone

- U (Update) – The activity/product are updated as required by statute, regulation, or to reflect new data as the product/process matures

- Some criteria have different milestone data in the milestone column that are specific to ships/submarine programs. Where those differ, the row directly under the criteria will state "For Ships/Submarines" with the corresponding milestone data provided in the milestone column

Since programs vary in their acquisition approach and strategy (e.g., Rapid Development Capability Programs, Urgent Operational Needs programs, evolutionary programs, etc.), the letters in the milestone columns may vary and should be used as a guide, not a hard requirement.

1.0 Product Support Management	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
1.1 Management Planning			
1.1.1 Processes to plan for or manage supportability have been identified or are in place to a level of maturity as appropriate to the program phase. These are documented in the program LCSP and implementing program product support documents, and are derived from statutory, regulatory, SYSCOM, and other requirements documents (system specification, etc.) (ref. DoDI 5000.02, SNI 5000.2, CJCSM 3170.01 series).	F	U	U
1.1.2 Program requirement documents quantify a threshold/objective range for each support and sustainment related performance parameter, with measurement metrics for each. Each parameter is associated with its programmatic resource cost to plan and execute across the projected life-cycle (see 2.2.1). Sustainment KPP/KSAs are defined consistently across documents (Joint Capabilities Integration and Development System (JCIDS), AS/LCSP, RFP, System Specification) (ref. DoDI 5000.02, SNI 5000.2, CJCSM 3170.01 series, Gate criteria).	F	U	U
1.1.3 Performance threshold values are on target for IOC, or have been met. If not, a plan is in place to ensure they are met (ref. DoDI 5000.02, SNI 5000.2, CJCSM 3170.01 series, Gate criteria).	IP	F	F
1.1.4 A risk management program has been established. Logistics support program risks and mitigation plans have been identified, assessed, and are being tracked and mitigated (ref. DoDI 5000.02, SNI 5000.2, Risk Mgmt. Guide for DoD Acquisitions, NAVSO P-3686).	F	U	U
1.1.5 Deficiencies identified during previous ILAs, assessments, SETRs (e.g., PDR, CDR, PRR), failure reports, program reviews, or testing that impact product support planning have been corrected or an acceptable plan is in place to mitigate the finding. Technology/Manufacturing Readiness Levels (TRLs/MRLs) reflect maturity that will not impact supportability planning.	F	F	F
1.1.6 All sustainment related Operational Assessment/Test findings of deficiency are resolved or are in the process of being mitigated.		F	F
1.1.7 A Systems Engineering Plan (SEP) has been developed in accordance with DoDI 5000.02/SNI 5000.2 and DoD SEP Preparation Guide. Supportability is included and considered in the engineering process.	F	U	U
1.1.8 MOAs/MOUs or other formal agreements have been developed between the program office, gaining command or platform, participating acquisition resource manager, user, (e.g., those identified in the SEP), field activities, software support activities, etc. that defines supportability requirements, administrative and personnel resources, funding, physical resources, etc. Examples are Ships Program Directives (SPD), MOAs to a field activity to provide support, DoD activity to host a backup disaster recovery site, Software Support Activity (SSA).	I	IP	F
1.1.9 A standardization process/program is in place (and summarized in the AS) to reduce proliferation of non-standard parts and equipment and optimize parts commonality across system designs (ref. 10 USC 2451, DoD 5000.02, SECNAVINST 5000. 2, OPNAVINST 3960.16 for Automated Test Equipment).	IP	F	U

1.0 Product Support Management	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
1.1.10 If a warranty is used: • A cost-benefit analysis is conducted to determine the appropriate spares/warranty strategy • Appropriate Supply Instruction annotating warranty start/stop date by serial number has been published • A written warranty plan has been developed that includes tracking and assessment of essential performance requirements as identified in the DoD Warranty Guide (ref. FAR 46.7, DFARS 246.7, DoD Warranty Guide)	I	IP	F
1.1.11 Fielding plans have been developed, including incorporation of the first install(s) at the schoolhouse(s).	IP	IP	F
1.1.12 Fielding authorizations have been obtained, including required product support certifications and approvals (e.g., Navy Modernization Program, IOC Systems Review).		IP	F
1.1.13 Interim support planning for all final IPS is in place, including exit criteria for attainment of Navy Support Date or rationale for any lifetime interim support strategy.	I	IP	F
1.1.14 Transition plans identify requirements for transitioning support of a system from an interim support provider to the gaining activity.	I	IP	F
1.1.15 The program office is staffed for all core and sub-product functions, to include a PSM as required. These positions are fully funded, either with mission funding or by Working Capital Funds.	F	F	F
1.1.16 OM&S requirements are implemented and OM&S metrics are tracked as appropriate.	I	IP	F
1.2 Product Support Business Case Analysis			
1.2.1 PBL strategies have been considered for all support areas (including Tech Assist, Support Equipment and Test Equipment (SE&TE), calibration requirements, training, etc.), which motivate/incentivize performance, are metrics-based, and consider legacy systems (ref. ASN(RD&A) PBL/BCA policy/guide, DoDI 5000.02, SNI 5000.2, PSM Guidebook and DOD Product Support BCA Guidebook).	I	IP	F
1.2.2 Product support BCAs are conducted per DoD Product Support BCA Guidebook. At a minimum, the BCA shall: • Establish scope, baseline, alternatives and assumptions • Statement of Objective and Benefit/Non-Financial Assessment • Identify and complete cost estimates • Conduct Risk Assessments • Contain a clear conclusion and recommendation	I	F	U
1.2.3 System level performance metrics have been established for the PBA between the user and the program manager, and directly support KPPs. Metrics are in synchronization with the scope of support provider's responsibility.	I	F	U
1.2.4 A methodology has been established to collect sustainment performance metrics. These metrics are defined and are measureable and repeatable. Metrics:	I	IP	F

1.0 Product Support Management	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
• Are linked to system KPPs • Address system reliability and incentivize use of common DoD components • Motivate desired long term behavior • Are understood and accepted by all stakeholders • Are assessable and verifiable by system stakeholders (ref. FAR 37.6)			
1.2.5 IPS performance metrics are collected and assessed.	I	IP	F
1.2.6 A range of performance based options from single Product Support Integrator (PSI) to Performance Based Life Cycle Support (PBLCS) opportunities with major sub-system and component Original Equipment Manufacturers (OEMs) has been evaluated, as described in DON PBL Guidance Document.		IP	F
1.2.7 Work agreement/Contract SOW includes required metrics, which will be tailored to the unique circumstances of the PBL arrangements, for evaluating required performance results in support of CDD/CPD and PBA performance parameters. Metrics support overall DoD PBLCS measures (Operational availability (A_o), Materiel Reliability (R_M), Logistics Footprint, Cost Per Unit Usage, Logistics Response Time, etc.). Sufficient cost data shall be included to validate PBL BCAs with actual costs during in-service reviews.		IP	F
1.2.8 Exit criteria have been established in the performance based contracts to ensure the orderly and efficient transfer of performance responsibility back to the Government upon completion or termination of the performance based contracts. Contains provisions for the acquisition, transfer, or use of necessary technical data, support tooling, support and test equipment, calibration requirements and training required to reconstitute or recomplete the support workload.		I	F
1.2.9 A support performance data collection system is planned/in place and operating. Trends are monitored and fed back for appropriate corrective actions. A corrective action process is defined if PBL performance does not meet PBA/Warfighter Agreement thresholds.	I	IP	F
1.3 Schedule			
1.3.1 A program IMP or Work Breakdown Structure (WBS), as provided in the contract, has been developed, which includes logistics support criteria or accomplishments to meet program milestones as specified within program requirements documentation (ICD/CDD/CPD, etc.).	U	U	U
1.3.2 A program IMS has been developed that: 1) is reflective of the program IMP or WBS; 2) contains detail on IPS support activities for both government and contractor, to include precursor and predecessor relationships; 3) is detailed for the program life cycle phase being assessed, and 4) reflects tasks identified in the LCSP (Assessor Note: this is not a contractor delivery/activity schedule).	U	U	U
1.4 Contractual Package			
1.4.1 The respective contractual package reflects the IPS efforts to be completed and delivered by the contractor as identified in program and IPS planning	F	F	F

1.0 Product Support Management	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
documentation. Note: When reviewing the contract package, ensure any IPS tasks or requirements identified as options have been exercised.			
1.4.2 Specifications for supportability and the current contract include verification criteria which can be met (to include test, demonstration, analyses, and verification).	F	U	U
1.4.3 Supportability requirements are flowed down to the appropriate specifications.	IP	F	F
1.4.4 Contracts include metrics for tracking and assessing contract performance.	F	U	U
1.4.5 The contractual package clearly identifies the functions, responsibilities, and authorities of field service representatives, if used. The contract is adequately funded.	I	IP	F
1.5 Configuration Management (CM)			
1.5.1 Requirements for the configuration identification, control, status accounting, configuration baseline, Configuration Control Board processes and membership (to include logistics participation), deviations, engineering changes and verification/audit functions are established for hardware, software and product/technical data and reflected in an approved Configuration Management Plan (CMP) (ref. DoDD 5000.01, DoDI 5000.02, SNI 5000.02, MIL-HDBK-61, SAE-GEIA-HB-649/EIA-649, IEEE 12207 for software).	F	U	U
1.5.2 Appropriate configuration audits have been conducted. * Functional Configuration Audit (FCA) conducted before Operational Test Readiness Review (OTRR) and prior to Milestone C, typically coinciding with System Verification Review (SVR) and PRR. The Physical Configuration Audit (PCA) is conducted prior to FRP/FDD.	I	*	*
1.5.3 The appropriate baselines (e.g., functional, allocated and product) have been established by the appropriate technical review events. * Functional Baseline at System Functional Review (SFR), Allocated Baseline at Preliminary Design Review, Initial Product Baseline at CDR and finalized at PCA (ref. DoDI 5000.02, see above references).	IP	*	*
1.5.4 All Configuration Items (CIs) and Computer Software Configuration Items have been identified (see above references and DODI 8500.02, SNI 5510.36).	IP	F	U
1.5.5 The status of configuration change activity and approvals, and the version descriptions for software CIs under development and installed in hosting locations are tracked within the Configuration Status Accounting (CSA) function within the program's CM processes per the CMP.	I	IP	F
1.5.6 The CSA information is maintained in a CM database that may include such information as the as-designed, as-built, as-delivered or as-modified configuration of the product as well as of any replaceable components within the product along with the associated product/technical data.	IP	F	U

1.0 Product Support Management	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
1.5.7 The status of proposed engineering changes from initiation to final approval and contractual implementation has been recorded and reported in the CSA records/data base.		F	F
1.5.8 An effective process is in place for processing Engineering Change Proposals (ECPs), deviations, etc. ECPs, deviations etc. are tracked and managed per the program's configuration management plan and process. The process includes assessment of the effects of the proposed change on the logistics support products and includes these in the ECP cost estimates.	IP	F	U
1.6. Integration of Aircraft/Ground Systems/C4I systems onto a host platform ship, vehicle, or facility etc.)			
1.6.1 An integration team has been formed between the host platform, weapon system/C4I program manager/integration facility etc. to ensure all supportability planning is conducted upfront. The IPT has been formally chartered.		F	U
1.6.2 For Ships, a Ship System Design Specification has been developed that addresses integration of all embarked systems and subsystems (including aviation) that ensures performance and support requirements will be met.	F	U	U
1.6.3 All necessary changes to shipboard spaces have been made to accommodate the installation and/or storage Participating Acquisition Resource Manager (PARM) systems, SE&TE, and related supplies.	IP	IP	F
1.6.4 Program planning/schedule includes: • Requirement to conduct ship suitability tests for each class of ship receiving the system • Ship installation assurance tests for each ship receiving a ship alteration as part of the Ship Change Document (SCD) process.	F	U	U
1.6.5 Program documentation includes the development of the program Interface Control Document. The Program Interface Control Document has been coordinated with NAVSEA 05 Ship Design Managers for each class of affected ships.	IP	F	U
1.6.6 Shipboard storage requirements (e.g., workspaces, storage, spaces storage for ordnance, etc.) have been identified and spaces allocated. This includes consideration for effective operation of ordnance handling equipment.	F	U	U
1.6.7 A site survey has been conducted for each class of ship receiving the system. Access to allocated spaces has been modeled and/or verified to ensure there is sufficient height, length, turning radius, support equipment, etc. to move weapon system, spares, etc.	IP	F	U
1.6.8 Flight deck certifications have been obtained or are in the process of being obtained with no pending issues.	IP	F	U
1.6.9 Power, water, chillers, overhead cranes, etc. requirements for PARM systems (e.g., weapon systems, aircraft, ground vehicles, etc.) have been coordinated with the host platform to ensure maintenance actions can be conducted as planned.	IP	F	U
1.6.10 The program has identified the requirements, bandwidth, and interfaces with the host platform's local area network.	IP	F	U
1.6.11 Proper amount of bandwidth is available on the host platform to support communications and required data flow between the user and host platform, and host platform and base or shore activity.	IP	F	U
1.6.12 Systems integration facilities can handle work throughput (e.g., integration of electronic warfare systems and communication gear, etc. on ground vehicles).	IP	F	U

2.0 Design Interface	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
2.1 Parts and Materials Selection			
2.1.1 Design guidelines for the contractor are provided which optimize supportability and maintainability of the system. The degree of adherence to the design guidelines for supportability and maintainability should be assessed at PDR and CDR (ref. DoDI 5000.02, SNI 5000.2).	F	U	U
2.1.2 System, subsystem and component specifications reflect the Design Reference Mission Profile (DRMP)/Operational Mode Summary/Mission Profile (OMS/MP) environmental, functional, and logistics use profiles (ref. ASN(RDA) DRMP Guide TB# ABM 1002-03).	IP	F	U
2.1.3 Proposed failure rates have been assessed and used to estimate annual operating costs.	I	IP	U
2.1.4 For applicable programs, the process for establishing and managing critical items/critical safety items list has been developed and follows the process delineated in SNI 4140.2 (ref. DoD 4140.1-R, PL 108-136 Sect 802).	IP	F	U
2.1.5 For applicable programs, provisions for identifying Critical Safety Items (CSI), Critical Application Items (CAIs), and non-critical items have been identified (ref. DoDI 5000.02, SNI 5000.2).	F	F	F
2.1.6 For applicable programs, CSIs, CAIs, and non-critical items are incorporated in the Contract SOW and Program Office tasking (ref. DoD 4140.1-R, SNI 5000.2, SNI 4140.2).	F	F	F
2.1.7 For applicable programs, a preliminary list of CSIs, CAIs, and non-critical items has been reconciled with latest Logistics Management Information (LMI) data and submitted.	I	F	U
2.1.8 For applicable programs, the CSI/CAI list and associated technical and management information has been approved by appropriate Government technical authorities and the final list has been submitted to the appropriate logistics databases.	I	F	U
2.2 Testability and Diagnostics			
2.2.1 Preliminary Fault Detection/Fault Isolation (*FD/FI) and testability analysis is completed by PDR (ref. CJCSI 3170.01C, SNI 5000. 2, ASN(RD&A) BIT Guide, TB#ABM 1001-01, EIA-649). *FD/FI throughout this document includes BIT/BITE, Prognostics Health Management (PHM)	F	U	U
2.2.2 Detailed FD/FI and testability analysis is completed by CDR, and FD/FI effectiveness is validated with tests (see above references).		F	U
2.2.3 The testability/FD/FI concept is defined with the operation concept and the maintenance concept for all levels of maintenance (see above references).	I	IP	F
2.2.4 Design analyses (e.g., fault tree, FMECA) have been used to determine test point requirements and fault ambiguity group sizes (see above references).	IP	F	U

2.0 Design Interface	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
2.2.5 The level of repair and testability analysis is completed for each configuration item for each maintenance level to identify the optimum mix of BIT, semi-automatic test equipment, calibration standards, Maintenance Assist Modules (MAMs), special purpose test equipment and general-purpose test equipment (see above references).	I	IP	F
2.2.6 FD/FI metrics are collected to assess FD/FI effectiveness and performance against requirements.			IP
2.2.7 FD/FI and diagnostics are meeting performance requirements (e.g., false alarm rates, percent fault isolation, etc.).			IP
2.3 Reliability, Availability, Maintainability, and Cost			
2.3.1 RAM-Cost (RAM-C) Rationale Report has been developed and provides a quantitative basis for reliability requirements and improved cost estimates. The report is attached to the SEP (ref. DoD RAM-C Guide).	F	U	U
2.3.2 Logistics elements are traceable to the following factors of the DRMP, OMS/MP (ref. SNI 5000. 2, DoD 4245.7-M, DoD Guide for achieving RAM, dtd Aug 05, DoD RAM-C Manual dtd 1 June 2009): • Environmental profiles include the systems production, operation and support environments with their associated timelines. The operating and non-operating requirements may include temperature, vibration, electromagnetic interference, electrostatic discharge, humidity, altitude, salt spray, fog, nuclear, chemical and biological, sand/dust, foreign object damage, production contaminants, etc. • Functional profiles are prepared and detailed to the subsystem, assembly and part levels as the system design progresses. They describe the system functional requirements and their associated mission and life cycle timelines. • Logistics-use-profiles and associated timelines are prepared and updated over the life cycle based on the system detail design and maintenance plan.	F	F	F
2.3.3 Metrics for Materiel Availability (A_M) (KPP) and R_M (KSA) and Ownership Cost (KSA) have been defined. Additional sustainment metrics, such as mean down time, customer wait time and footprint reduction as appropriate have been assessed and defined (ref. DoDI 5000.02, SNI 5000.2, USD(AT&L) Memo, "Implementing a Life Cycle Management Framework, dtd 31 Jul 08, USD(AT&L) Memo, Implementation of Life Cycle Sustainment Outcome Metrics Data Reporting, dtd 11 Dec 08).	F	U	U
2.3.4 RAM requirements are applied to all systems, to include those that rely on or are developed with COTS/Non Development Items (NDIs) (ref. DoDI 5000.02/SNI 5000.2, ASN(RD&A) RAM Policy memo dtd 28 Aug 08, DoD RAM-C manual).	IP	F	U
2.3.5 RAM measures (e.g., A_o, A_M, Mean Time Between Failures (MTBF), Mean Time To Repair (MTTR), and Mean Logistics Delay Time (MLDT), Fault Detection, Fault Isolation and False Alarm) are defined in quantifiable and measurable terms (ref. SNI 5000.2, ASN(RD&A) RAM memo dtd 28 Aug 08, OPNAVINST 3000.12, CJCSM 3170.01).	F	U	U

2.0 Design Interface	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
2.3.6 The Life Cycle Sustainment KPPs (A_o, A_M, Materiel Reliability KSA M_R and Ownership Cost KSA) and other RAM performance objectives (MTTR, BIT, etc.) are being tracked and achieved as defined (ref. DoDI 5000.02; CJCSM 3170.01 series; DOD JCIDS Manual dtd February 2009; DOD RAM-C Manual).		IP	F
2.3.7 Programs are reporting RAM into the appropriate RAM databases as required such as the Defense Acquisition Management Information Retrieval System (DAMIRS), Material Readiness Database, etc.		F	U
2.3.8 Field data is collected from systems in production and fielded units to verify if RAM requirements and KPPs are being met.		IP	F
2.3.9 RAM performance capability parameters are defined consistent with the ICD/CDD/CPD and flowed down to the Test and Evaluation Master Plan (TEMP), other programmatic documents and RFP/contract as appropriate (ref. DoDI 5000.02, SNI 5000.2, CJCSM 3170.01 series).	F	F	F
2.3.10 A process has been implemented to assess achieved Reliability, RAM performance by collection and analysis of user data, for factory and fleet.	I	IP	F
2.3.11 A process is in place or included in the failure reporting system for the reporting of Retest OK (RTOK)/No Evidence of Fault Found (NEOFF). This is documented in a formal process and requirements are imposed on the commercial or organic activity.			F
2.3.12 Predictions, analyses and tests are conducted to verify if RAM requirements and KPPs will be met (ref. DoDI 5000.02, SNI 5000.2, ASN(RD&A) RAM memo dtd 28 Aug 08).	IP	F	U
2.3.13 Reliability growth program indicates that system and subsystem reliability is appropriate to meet the stated requirement. A reliability growth plan has been implemented as appropriate.	F	U	U
2.3.14 Reliability maturation tests (Accelerated Life or Reliability Development tests) are used to mature equipment reliability (ref. DoD 4245.7-M, ASN(RD&A) RAM memo dtd 28 Aug 08).	I	F	U
2.3.15 Contracts include the requirement for the supplier to implement RAM programs and provide updated analyses towards the achievement of those requirements (ref. GEIA-STD-0009, as a reference for RAM contracting practices, DoD 4245.7-M, ASN(RD&A) RAM memo dtd 28 Aug 08).	I	F	U
2.3.16 Contingencies for system selection or RAM/supportability design changes are considered when preliminary RAM thresholds are deemed unachievable.	I	IP	F
2.3.17 Reliability verification testing has been planned/conducted for all components as applicable, to include COTS components, to ensure they meet or exceed overall system reliability requirements.	IP	F	U

3.0 Sustaining Engineering	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
3.1 Analysis			
3.1.1 Reliability growth data and curves show that reliability is improving (ref. MIL-HDBK-189 Reliability Growth Management).	IP	F	U
3.1.2 Information from Product Quality Deficiency Reports (PQDRs) is tracked for trends and product improvement (ref. SNI 4855.3/4855.5).			F
3.1.3 The corrosion prevention control program has been developed and included in the SEP (ref. DoDI 5000.02, DoDI 5000.67, DoD Corrosion Prevention Plan, dtd 2008).	I	F	U
3.2 Diminishing Manufacturing Sources and Material Shortages (DMSMS)			
3.2.1 A formal DMSMS program and management plan has been established and documented consistent with DON policy and guidance (ref. SNI 5000.2, ASN (RD&A) memo of 27 Jan 05, "DMSMS Management Guidance," and ASN(RD&A) DMSMS Management Plan Guidance, dated July 2016).	F	U	U
3.2.2 The DMSMS Management Plan and program addresses the elements identified in the DON DMSMS Management Streamlining Guidance dated July 2016. These are: • DMSMS Analysis • DMSMS Risk Management • DMSMS Management Team • Funding • Contract Requirements • Metrics	F	F	U
3.2.3 If technology refresh is a program strategy for managing DMSMS, the program has received sponsor concurrence/approval. A formal technology roadmap and approved refresh plan have been developed. A formal Technology Refresh (Roadmap) Plan should be documented.	IP	F	U
3.2.4 The program has defined DMSMS metrics and tracks DMSMS cases, trends and associated solutions and costs.	F	U	U
3.2.5 Identified DMSMS risks (e.g., end-of-life issues) have been mitigated or the solution and funding to mitigate the risk has been identified. There are no unresolved DMSMS cases or unresolved end of life issues.	IP	F	U
3.3 Failure Reporting and Corrective Action System (FRACAS)			
3.3.1 FRACAS process, including failure analysis, is established and failures are analyzed and trended for IPS visibility. FD/FI indications and false alarms are analyzed and included in the FRACAS process (ref. SNI 5000.2, ASN(RD&A) RAM policy memo dtd 28 Aug 08, DoD Guide for Achieving RAM, dtd Aug 2005).	I	F	U
3.3.2 A FRACAS review is performed on engineering development models, pre-production units, production and deployed units.	IP	IP	IP
3.3.3 Safety/mishap reports associated with material and design deficiencies are linked with or provide input into the FRACAS and affected documentation.	IP	IP	IP

4.0 Supply Support	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
4.1 Sparing Analysis			
4.1.1 Sparing analyses and levels: • Are based on use of a DON approved Readiness Based Sparing (RBS) methodology (e.g., OPNAVINST 4442.5, models in the Navy RBS Workstation such as Aviation Readiness Requirements Oriented to Weapon Replaceable Assemblies (ARROWS)/Supply Parts Optimizer (SPO), TIGER-ACIM and CARES) when appropriate. • Demand based DON approved models (such as Fleet Logistics Support Improvement Program or Retail Inventory Management for Aviation) are used when data is inadequate or the RBS approach is not cost effective and OPNAV (N412) has approved a waiver. • Include consideration for On-Board Repair Parts (OBRP), Installation and Check Out (INCO), Interim Spares, Initial Issue Provisioning, etc. as applicable.	I	F	U
4.1.2 Material is tracked using the approved system of record.	I	IP	F
4.1.2 Supply chain metrics tracking and management processes are defined and approved by weapon system stakeholders (ref. DoD4140.1-R, DoD 5000.02, SNI 5000.2).	IP	F	U
4.1.3 Supply chain metrics and management processes for tracking and assessing performance (e.g., turnaround times, repair times, delivery times, etc.) are implemented (ref. DoD4140.1-R, DoD 5000.02, SNI 5000.2).		IP	F
4.1.4 Definition of success is determined by meeting contracted supply chain management metrics. In instances where the provider is responsible for turnaround times and fill rate metrics, but the DON will own materiel at the consumer level, RBS is used to determine the consumption level based on the operational scenario of the platform.	I	IP	F
4.2 Supply Chain Management			
4.2.1 Support strategies have been considered that are consistent with the end-to-end materiel flow process, from source to destination, including "last mile." It also identifies turnaround times for spares, replacement parts, refurbished and reworked items, fleet and field returns, etc. (ref. DoD4140.1-R, DoD 5000.02, SNI 5000.2).	IP	F	U
4.2.2 The program provides asset visibility and reporting of Government furnished Equipment, Government Furnished Material, Government Furnished Property (ref. DoDI 5000.64, DoD4140.1-R, SNI 7320.10, SNI 4440.33, OPNAVINST 4440.26) to include applicable DFARS clauses.	I	IP	F
4.2.3 End-to-end logistics chain sustainment solutions include planning for contingency and surge capacity.	IP	IP	F
4.2.4 Support strategies are supporting "last tactical mile" (e.g., base, port or stock point to deployed user) and deployed systems in austere environments.	I	IP	F
4.2.5 A supply chain management process has been established to address and eliminate the introduction of counterfeit components into the supply chain and weapon system during repair in accordance with SECNAVINST 4855.20. This	IP	F	U

4.0 Supply Support	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
includes: • Identification of critical materiel at high risk of counterfeiting based on risk assessment • Anti-counterfeit risk mitigation actions for material identified as high risk for counterfeiting are included in the Risk Management Plan or SEP. • Processes and measures to protect the system from counterfeit material during operations are identified in the LCSP and Program Protection Plan • Contracts for CAS covered contractors include DFARS subpart 246.870. For contracts where DFARS 246.870 does not apply, solicitations/contracts include the requirements identified in SECNAVINST 4855.20			
4.2.6 If the Defense Logistics Agency (DLA) is anticipated as a supplier, DLA has been included in the development of the supply support strategy.	I	IP	F
4.2.7 Enterprise integration enables a single view of the supply chain of both organic and commercial provider asset inventories and asset tracking (i.e., Total Asset Visibility).	IP	F	U
4.2.8 If additive manufacturing (AM) is used as part of the support strategy, a process plan is in place that governs type of spares that that are authorized for AM, quality requirements, etc.	IP	U	F
4.3 Asset Management Planning			
4.3.1 The inventory of spares to be procured is determined and spares records are maintained.		IP	F
4.3.2 Allowances are determined. For aviation programs, the program has determined how the aviation related spares will be provided, i.e. as part of Aviation Coordinated Allowance List (AVCAL) provisioning and outfitting, Coordinated Shipboard Allowance List (COSAL) provisioning and outfitting processes, or as a Pack-Up Kit (PUK) for ships, and Allowance Parts Lists/Allowance Equipage Lists as required.		IP	F
4.3.3 Provisions for surge requirements are identified and reflected in the contract as applicable.	IP	F	U
4.3.4 Provisioning conferences are conducted, as necessary, to determine if the contractor's provisioning preparation, documentation and facilities are adequate.	IP	IP	F
4.3.5 Provisioning data includes legacy part numbers assigned by OEMs.	IP	IP	F
4.3.6 Provisioning screening has been conducted to: • Prevent duplicate entries in the DoD supply data system • Obtain most cost-effective support, including consideration of using existing supply items	IP	IP	F
4.3.7 Item management codes are assigned, which include Source, Maintenance and Recoverability (SMR) codes and those for Hazardous Materials (HAZMAT).	IP	IP	F
4.3.8 Provisioning data reports, such as the following examples have been generated: • Recommended repair parts list provided for preoperational repair parts and training equipment • Provisioning parts list determining the range and quantity of support items for an initial period	IP	IP	F

4.0 Supply Support	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
(See Support and Test Equipment (S&TE) for associated provisioning requirements)			
4.3.9 The supply support provider has the capability to accept demand requisitions and provide status reports by electronic data interchange.			F
4.3.10 Data required to catalogue explosive/hazardous items (e.g. Drawings, Packaging Test Reports and Instructions, Hazards of Electromagnetic Radiation to Ordnance Test Report, Electrostatic Discharge Test Report) is on contract and has been budgeted for (ref. OPNAVINST 8015.2, NAVSUP P-724).	IP	F	U
4.3.11 All explosive/hazardous items have been identified and have received active NSNs (ref. OPNAVINST 8015.2, NAVSUP P-724).		IP	F
4.4 Interim Support			
4.4.1 The interim support item list identifies support requirements for a transitional operating period (ref. NAVSUPINST 4420.36 Program Support Data For Interim, Initial And Follow-On Secondary Item Requirements, NAVSUPINST 4400.93 Interim Supply Support).	IP	F	U
4.4.2 Transition planning to Material Support Date (MSD) for the Navy is conducted to ensure attainment of full operational support beyond the interim support period for all applicable logistics factors (see above references). Note: The MSD date is when sparing support transitions from Program Office funding to OPFOR/Fleet funding.		IP	IP
4.4.3 Interim supply support requirements are in place and effective.	I	IP	F
4.4.4 If Government support will not be available, planning for contractor teams supporting fielded units is in place (see above references).		IP	F
4.5 Item Unique Identification			
4.5.1 Radio Frequency Identification (RFID) planning and strategy have been developed/updated consistent with DoD and DON policy and guidance including: • USD(AT&L) Memo, Subj: RFID Policy • N413T/5U899623 Memo, Subj: Navy RFID Implementation Plan • MCO 4000.51, Subj: Automatic Identification Technology	I	IP	F
4.5.1(a) For ships/submarines, applicable milestones are:	I	F	
4.5.2 RFID Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.211-7006 has been added to all solicitations and contracts as appropriate.	I	F	U
4.5.3 Item Unique Identification (IUID) DFARS Clause 252.211-7003 Item Identification and Valuation and added to all solicitations and contracts as appropriate to verify that the contract contains the two lists required by the DFARS clauses: (a) the list of PM-designated, controlled, and serially managed items, and (b) embedded items.	IP	F	U
4.5.4 IUID DFARS Clause 252.211-7007, Reporting of Government-Furnished Equipment in the DoD IUID Registry, has been added to all solicitations and contracts as appropriate.	IP	F	U
4.5.5 IUID Program plan and strategy have been developed/updated consistent with DoD and DON policy and guidance including: • DoDI 8320.04 - IUID Standards for Tangible Personal Property	IP	F	U

4.0 Supply Support	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
• DoDI 8320.03 - Unique Identification (UID) Standards for a Net-Centric Department of Defense • SNI 4440.34: - Implementation of IUID within the Department of the Navy			
4.5.6 Program IUID, Serialized Item Management (SIM), and RFID requirements are adequately addressed in the appropriate program supportability plans (ref. SNI 4440.34) (ref. DoDI 4151.19 SIM for Materiel Maintenance).	IP	F	U
4.5.7 RFID and IUID Implementation and Compliance Metrics have been identified (ref. SNI 4440.34).	F	U	U
4.5.8 RFID and IUID Implementation and Compliance Metrics are being tracked (ref. SNI 4440.34).	I	IP	F
4.5.9 For software centric programs, a data enterprise architecture has been generated which identifies logistics related electronic data repositories, information exchange requirements, and usage including SIM/IUID specific functional and detailed requirements. (DoDI 4151.19).	IP	F	U

5.0 Maintenance Planning and Management	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
5.1 Maintenance Concept, Design & Analysis			
5.1.1 Accessibility, human factors engineering, diagnostics, repair and sparing concepts for all maintenance levels are established (ref. DoDI 5000.02, SECNAVINST 5000.2, DoDD 4151.18, OPNAVINST 4790.4 and 4790.13, OPNAVINST 4700.7, MIL-HDBK-470, CNAFINST 4790.2, TA-STD-0017, GEIA-STD-0007, GEIA-HB-0007, SAE AS1390, TA-HB-0007-1, MIL-HDBK-502, MIL-HB-1390).	F	U	U
5.1.2 Requirements for manpower factors that impact system design utilization rates (e.g., maintenance ratios) are identified (see above references).	F	U	U
5.1.3 Maintenance task times, maintenance skill levels and number of maintenance and support provider personnel required have been derived from but not limited to the following: • Maintenance Task Analysis (MTA) • Reliability (e.g., MTBF) • Maintainability (e.g., MTTR) • Availability (e.g., task-time limits) • Reliability and maintainability tests • Performance monitoring/fault detection/fault isolation and diagnostics • Tasks and Function Analysis • Top Down Requirements Analysis Ref : DoDI 5000.02, SNI 5000.2, DoDD 4151.18, OPNAVINST 4790.4, OPNAVINST 4700.7, MIL-HDBK-470, MIL-PRF-49506	IP	F	U
5.1.4 Life-cycle supportability design, installation, maintenance, SE&TE, calibration, and operating constraints and guidelines are identified (ref. DoDI 5000.02, SNI 5000.2, DoDD 4151.18, OPNAVIST 4790.4, MIL-HDBK-502, MIL-HDBK-470, TA-STD-0017, GEIA-STD-0007, GEIA-HB-0007, SAE AS1390, TA-HB-0007-1, MIL-HDBK-502, MIL-HB-1390).	IP	F	U
5.1.5 Maintenance planning and analyses consistent with statutory and regulatory requirements (ref. Title 10 USC 2464 (CORE) & OPNAVINST 4790.14 (Joint Depot Maintenance Program)/MCO P4790.10B): • CORE Logistics Analysis • Source of Repair Analyses/Depot Source of Repair (CORE Logistics Analysis/Source of Repair Analysis documented in LCSP and summarized in the AS) (ref. DoDI 5000.02, SNI 5000.2, OPNAVINST 4790.14)	F	U	U
5.1.6 The program has documented its determination of applicability of CORE depot level maintenance and repair capability in the LCSP by Milestone A (ref. 10 USC 2366A, DoDI 5000.02).	F	U	U
5.1.7 The program manager has attached the program's estimated requirements for maintenance, repair, and associated logistics capabilities and workloads to the LCSP by Milestone B (ref. 10 USC 2366B, DoDI 5000.02).	F	U	U
5.1.8 A Depot Source of Repair designation has been made not later than 90 days after CDR (ref. 10 USC 2366B, DoDI 5000.02).	I	F	U

5.0 Maintenance Planning and Management	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
5.1.9 Supportability analysis has been conducted to detail requirements for CORE Depot Level Maintenance and repair capabilities and associated sustaining workloads prior to entering into the contract for LRIP (DoDI 5000.02).	I	F	U
5.1.10 Where the selected Depot is collocated with DLA and use of DLA storage facilities is required, agreements are in place (or being negotiated) to ensure DLA will be able to support the program (Ref. DoDI 5000.02)		IP	IP
5.1.11 Economic and non-economic Level of Repair Analysis (LORA) is planned to establish the least cost feasible repair level or discard alternative (ref. OPNAVINST 4790.13A, MIL-PRF-49506, DAG 4.3.3.3.4).	F	U	U
5.2 Maintenance Planning and Plan			
5.2.1 Product Support Analysis (PSA) is used including Condition Based Maintenance/Plus (CBM/+) strategy determine maintenance decisions to reduce scheduled maintenance and manpower requirements, while reducing operation and support costs and ensuring the appropriate maintenance is performed (see above references & OPNAVINST 4790.16/Form 4790/114, OPNAVINST 4790.2 (Air) and 4790.4 (Sea) Series), OPNAVINST 4790.14 (Joint Depot Maintenance Process), DODI 4151.22 (CBM+), DODM 4151.22-M (Reliability Centered Maintenance (RCM) Handbook, MIL-HDBK-502, and MIL-HDBK-1390).	IP	F	U
5.2.2 Defines specific criteria for repair and maintenance for all applicable maintenance levels in terms of time, accuracy, repair levels, FD/FI (BIT), testability, reliability, maintainability, Battle Damage Assessment And Repair, nuclear hardening, support equipment requirements (including automatic test equipment), manpower skills, knowledge and abilities and facility requirements for peacetime and wartime environments (see above references).	IP	F	U
5.2.3 Defines the maintenance approach including level of repair, results of Maintenance Task Analysis (MTA) to determine logical maintenance task intervals, support equipment, supply support, technical data, training and packaging. The calibration support plan has been updated to reflect all phases of the LORA determination (see above references).	IP	F	U
5.2.4 Defines the actions and support necessary to ensure that the system attains the specified A_o that is optimized considering RCM, CBM, time-based maintenance (see above references).	IP	F	U
5.2.5 System anomalies and intermittent failures are analyzed for possible changes to the FD/FI design, thresholds/tolerances and/or filtering (see above references).	IP	F	U
5.2.6 States specific maintenance tasks, including battlefield damage repair procedures, to be performed on the materiel system (see above references).	IP	F	U
5.2.7 Identifies hosting and requirements (e.g., interfaces) for the maintenance data reporting system if it will be used/deployed on a platform (e.g., ship, Carrier, etc.) (see above references).	F	U	U

5.0 Maintenance Planning and Management	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
5.2.8 Maintenance planning documentation identifies: • Tools and test equipment by task function and maintenance level • Category codes (e.g., SMR codes, etc.) (ref. OPNAVINST 4410.2/MCO 4400.120) • Manufacturer's part numbers, nomenclatures, descriptions, estimated prices and recommended S&TE quantities, including SE&TE for SE&TE	I	IP	F
5.2.9 RCM analysis conducted in accordance with MIL-STD-3034 and FMECA are used to determine the appropriate type of maintenance (e.g., inspect/repair as necessary, disposal or overhaul) (DODM 4151.22-M (RCM Handbook and above references).	IP	F	U
5.2.10 Corrosion control management and design considerations have been developed in accordance with DoDI 5000.67 (required for all ACAT I programs) and included in the SEP/LCSP.	F	U	U
5.2.11 Final preventive maintenance system products have been certified, are resident in the authoritative database, and have been delivered to the users.		IP	F
5.2.12 If an interim depot is used, it is ready to accept workload.		F	U
5.2.13 If a commercial depot is used, the contract is awarded.		F	U
5.2.14 Performance monitoring, FD/FI, and BIT are performing to specified requirements and is optimized to meet maintenance requirements.		IP	F
5.3 Depot Capability Support Planning			
5.3.1 Depot capability support strategy has been developed/updated and communicated within the acquisition documents and includes support strategy covering the following areas: • Depot-level capability plan of action and milestones (POA&M) • Industrial Depot Maintenance Management Process (IDMMP) (CORE/Title 10, Source of Repair Analysis (SORA), Depot Maintenance Interservice (DMI/DSOR Process) • Interim and Final depot support strategy • Depot transition plan for hardware and software to organic support not later than four years after achieving IOC (if applicable) • Depot establishment cost estimates (initial/updated) & submission • Relative to Program Objective Memorandum cycle • Integrated Logistics Support (ILS) depot support requirements • Any associated risks to successful depot establishment	I	IP	F
5.3.2 The depot manager has certified the depot is ready to support the system. If not certified, the certification date and criteria have been identified, and it has been verified that the date is valid to support the system.		IP	F
5.3.3 The planning efforts have a requirement for depot capability establishment at IOC plus four years. Per 10 USC 2464, depot level repair processes identified as CORE must have a core capability that is Government-owned and Government-operated (including Government personnel and Government-owned and Government-operated equipment and facilities not later than four years after	I	IP	IP

5.0 Maintenance Planning and Management	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
achieving IOC).			
5.3.4 Contract for Interim depot support initiated/negotiated/awarded.		IP	IP
5.3.5 The interim depot is ready to accept workload.		IP	IP
5.3.6 Program initiated/completed the appropriate depot support agreement for Organic (Navy/Marine Corps), DMISA (Army/Air Force), or Public-Private Partnership (PPP).			IP
5.3.7 The Designated Repair Point is ready to accept workload.			IP
5.4 CORE/Title 10			
5.4.1 Maintenance planning and analyses is being performed consistent with statutory and regulatory requirements (ref. Title 10USC2464 (CORE), 2366b (MS B), and Public Law 112–81). Per 10 USC 2464, Depot Level Repairables (DLRs) identified as having a CORE capability requirement must establish repair capability that is Government-owned and Government-operated (including Government personnel, equipment and facilities not later than four years after achieving IOC).	IP	F	U
5.4.2 The Program has coordinated and requested that a CORE logistics analysis and estimate of associated CORE workload be performed per 10USC2366b in support of the Industrial Assessment (IA), leveraging the Preliminary Industrial Assessment (PIA), if previously performed.	IP	F	U
5.4.3 The Program Office has defined detailed requirements, e.g. forecasted numbers of in-service failures for each CORE DLR, for CORE depot-level maintenance and repair capabilities, as well as the associated logistics capabilities and the associated sustaining workload estimation; and coordinated and requested the analysis from the CORE/Title 10 Branch prior to entering into a contract for LRIP, per PL 112–81.	F	U	U
5.4.4 The SORA process has been completed through AIR 6.7.7, in support of an Industrial Assessment (IA), to identify potential candidate sources of repair for further analysis in identifying the recommendation used for entering the Depot Maintenance Interservice (DMI) process.	F	U	U
5.4.5 Has a detailed CORE analysis been completed in order to determine if there are CORE maintenance and repair requirements for the DLRs entering the DMI Review/DSOR process.	IP	F	U
5.4.6 The DMI package has been completed to include all DLRs and the proper rationale to support candidate Depot (capability, capacity, business, operational considerations) IAW DoDI 5000.02 and OPNAVINST4790.14. (By MS-B if information is available ref. OPNAVINST 4790.14. Ensure that a depot source of repair designation is made no later than 90 days after the Critical Design Review (DSOR decision completed NLT CDR+90 days), per DoDI 5000.02.)	IP	F	U

6.0 Packaging, Handling, Storage and Transportation (PHS&T)			
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
6.1 General Requirements			
6.1.1 Packaging, storage, handling and transportation profiles of the configuration items over the system life cycle from acceptance through disposal have been derived from the DRMP or OMS/MP (Ref. ASN (RD&A) TB#ABM-1003-03 - Design Reference Mission Profile (DRMP) Development Guidelines).	I	IP	F
6.1.2 PHS&T requirements such as weight and dimension data are adequately specified for in the required provisioning technical data (ref. NAVSUPINST 4030.28).	I	F	U
6.1.3 DoD's computerized Container Design Retrieval System database has been searched to preclude the design of new specialized containers when suitable one exists in the system (ref. MIL-STD-2073-I - Standard Practice for Military Packing, NAVSUPINST 4030.28 - Packaging and Material).	I	IP	F
6.1.3(a) For ships/submarines, applicable milestones are:	I	F	U
6.1.4 If a new specialized reusable container is needed, requirements have been identified, to include coordination with the cognizant field activity (ref. NAVSUPINST 4030.28 - Packaging and Material).		IP	F
6.1.5 PHS&T planning documentation has been developed that identifies the program strategy for safely packaging, handling, storing, and transporting the system as well as any special requirements and interfaces with agencies or DoD components responsible for transporting the system (Refer to MIL-HDBK-502A Product Support Analysis (PSA), MILSTD -1367 - PHS&T, and OPNAVINST 4030.1 - Navy Packaging Program).	IP	F	U
6.1.5(a) For ships/submarines, PHS&T requirements to be levied on PARMs are defined (Refer to NAVSUPINST 4030.28 - Packaging of Material, MIL-STD-758 Packaging Procedures For Submarine Support Items).	IP	F	U
6.2 Packaging			
6.2.1 For materiel meeting the following requirements, MIL-STD-2073-1 - Military Packaging, OPNAVINST 4030.1 - Navy Packaging Program, MIL-STD-758, Packaging Procedures For Submarine Support Items are specified as applicable: • That cannot be protected and preserved in a cost-effective manner using standard practices for commercial packaging • Items delivered during wartime for deployment with or sustainment to operational units • Items that are depot level repairable • Items requiring reusable containers • Items intended for delivery-at-sea • Security Assistance/Foreign Military Sales/Grant Aid (unless otherwise directed by the destination country)	I	IP	F

6.0 Packaging, Handling, Storage and Transportation (PHS&T)			
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
6.2.2 Department of Agriculture requirements for packaging intended for international use have been met as required (Ref. DoD 4140.65-M Issue, Use, and Disposal of Wood Packaging Material.	I	IP	F
6.2.3 Marking requirements for all unit intermediate and shipping containers have been met (ref. MIL-STD-129).	I	IP	F
6.2.4 PHS&T requirements for hazardous materials and associated wastes have been identified.	I	IP	F
6.2.5 PHS&T issues (retrograde packaging, reusable containers, retrograde transportation, shipboard storage, damage in transit, etc.) raised by the user have been addressed by the program Ref. OPNAVINST 4030.1 - Navy Packaging Program.		IP	F
6.3 Handling			
6.3.1 Requirements for Material Handling Devices for loading, unloading to include CONREP, VERTREP, etc. have been defined (Ref. MIL-STD-648 - Specialized Shipping Containers and OPNAVINST 4030.1 -Navy Packaging Program).	IP	F	U
6.3.2 Material Handling Devices for loading, unloading to include CONREP, VERTREP, etc. have been certified (ref. 6.3.1 above).	I	IP	F
6.3.3 For systems going onboard ships/submarines, packaging is designed to be compatible with shipboard handling equipment (ref. 6.3.1 above).	I	IP	F
6.3.4 For ships/submarines: For systems that will go onboard new ships/submarine construction, systems have been provided to the host platform for the host's Milestone C to ensure supportability (e.g. storage space) (ref. 6.3.1 above).	F	U	U
6.3.5 Systems receiving systems (e.g. aircraft receiving guns) have resourced and provided required supportability products (for example, storage space, containers) (ref. 6.3.1 above).	I	IP	F
6.4 Storage			
6.4.1 Storage monitoring equipment is installed, as applicable, and requirements are included in technical manuals (ref. MIL-STD-2073-1 - Military Packaging, DoD 4145.19-R-1 - Storage and Materials Handling, OPNAVINST 4030.1 -Navy Packaging Program, and NAVSUP 572 - Joint Storage Manual).	I	IP	F
6.4.1(a) For ships/submarines, applicable milestones are:	IP	F	U
6.4.2 Long term storage requirements for systems, such as ground and air vehicles, have been identified to ensure lubrication, batteries, seals, etc. will not degrade. Accessibility for maintenance during long term storage has been considered (ref. 6.4.1 above).	I	IP	F
6.4.3 Items requiring special storage requirements (e.g., freezers for storage of composites, HAZMAT, etc.) and/or shelf life requirements have been identified and documented in the appropriate IPS documentation (ref. 6.4.1 above).	I	IP	F
6.4.3(a) For ships/submarines, applicable milestones are:	IP	F	U

6.0 Packaging, Handling, Storage and Transportation (PHS&T)			
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
6.5 Transportability/Transportation			
6.5.1 Transportability issues are addressed, to include: • Oversized/overweight items • Items requiring special transportation modes • Items that are classified • Certification (air, rail, Department of Transportation, etc.) • Necessary waivers have been obtained • Items intended for international shipment • (ref MIL-STD-1366 - Transportability Criteria, and MIL-STD-147 - Palletized Unit Loads	IP	F	U
6.5.2 Anti-tamper requirements (and security processes while in storage and transit) have been identified for both hardware and software and factored into the maintenance planning for deployed systems (ref. DoDINST 5200.39 - Critical Program Information (CPI) Protection Within DoD, USD (A&T) Memo – Implementing Anti-Tamper (AT)).	IP	F	U
6.5.3 Rail, air and ship certifications have been obtained or are scheduled/coordinated with the appropriate platform manager or agency. This includes tie down patterns, rail impact tests, load modeling or load demonstration, and interfaces between the system being transported and the transporting platform (ref 6.5.1 above).	IP	F	U
6.5.4 Time delivery requirements for all shipments of spares to the Navy/USMC have been identified (ref. 6.5.1 above).	I	I	F
6.5.5 Transportation requirements with Federal and State agencies have been identified (such as height, weight, etc.) and any necessary waivers obtained for highway or rail transport (ref. 6.5.1 above).	IP	F	U
6.5.6 Transportation processes, hardware and procedures for disabled systems (e.g., aircraft, ground systems) have been developed and tests scheduled/conducted (ref 6.5.1 above).	I	IP	F
6.5.7 There are no interface issues between the system being transported and the transporting platform (e.g., height, turning radius, etc.) (ref MIL-STD-1366 - DoD Interface Standard for Transportability Criteria).		IP	F
6.6 Testing			
6.6.1 Design validation testing has been conducted on special packaging (ref MIL-STD-2073-1 - Military Packaging).	I	IP	F
6.6.2 Ammunition tests have been conducted to ensure compatibility with host platform/facility requirements (ref MIL-STD-1660 - Ammunition Unit Loads).	I	IP	F
6.6.3 Hazardous material packages have been tested per the applicable requirements for performance packaging contained in the International Air Transport Association Dangerous Goods Regulations or the International Maritime Dangerous Goods Code and with the Code of Federal Regulation, Titles 29, 40 and 49 (Ref. MIL-STD-2073-1 Military Packaging).	I	IP	F

7.0 Technical Data	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
7.1 Technical Data Management Strategy Note: Technical Data is also termed Intellectual Property Strategy			
7.1.1 A technical data management strategy has been developed that: • Is documented in the LCSP and AS • Supports re-competition, for production, sustainment, additive manufacturing considerations, or upgrade • Addresses the merits of including priced contract options for future delivery of technical data and intellectual property rights and addresses restricted use and data release (ref DoDI 5000.02, SNI 5000.2)	F	U	U
7.1.2 The program office has a plan that identifies its intent for data rights which allows the government the right to use, modify, reproduce, perform, display, release.	F	U	U
7.2 Integrated Digital Environment			
7.2.1 If applicable, all network (e.g., Navy Marine Corps Intranet) compatibility issues are addressed and mitigation steps identified.	IP	F	U
7.2.2 Electronic data interchange, on-line access, and automation issues are addressed starting with development of the information exchange requirements and continuing throughout the program life cycle.	IP	F	U
7.2.3 A logistics data enterprise architecture has been generated which identifies electronic data repositories, information exchange requirements, and usage.	I	IP	F
7.2.4 Authoritative Data Sources and the associated change authority have been identified, described and designated by the appropriate Services, U.S. Military Services and Components, as the authorized data production source to create, manage, use, distribute, and archive publish complete and accurate data for use by the end users.	IP	F	U
7.3 Product/Technical Data Package and Publication			
7.3.1 A product/technical data management plan, that includes change control processes, in-process review/validation/verification schedules as appropriate, has been developed (ref DoD 5010.12-M).	I	IP	F
7.3.2 Computer Aided Design, modeling, and engineering product source data is acquired in acceptable digital format and managed according to the Integrated Digital Data Environment CONOPS.	IP	F	U
7.3.3 The product/technical data package is consistent with maintenance plans and the Information Support Plan and provides a sufficient level of detail for re-procurement, upgrade, and maintenance. The product/technical data package normally includes: • Specifications, technical manuals, publications, engineering drawings/product data models, calibration procedures, and special instructions such as for unique manufacturing and test processes • Interchangeability, form, fit and function information • Environment, Safety, and Occupational Health (ESOH) constraints or requirements	I	F	U

7.0 Technical Data	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
• Preservation and packaging requirements • Test requirements data and quality provisions • Preventative maintenance system/maintenance requirements card • Environmental stress screening requirements			
7.3.4 The product/technical data package elements have been specified in the contractual package in accordance with requirements of MIL-STD-31000, as appropriate.	F	F	F
7.3.5 The contract identifies and requires delivery of the technical data requirements as identified by the analysis, as appropriate.	IP	F	U
7.3.6 Changes have been made that were identified during the PCA.			F
7.3.7 Contractual technical documentation deliveries have been checked to ensure markings (e.g., incorrectly marked contractor proprietary) are correct and convey the agreed upon government use rights.	F	U	U
7.4 Technical Publications			
7.4.1 The contents of the product/technical manuals have been validated/verified, considering the following: • Phased development schedule is in parallel with the system development, including validation/verification and transition to the Navy/USMC • Contents are validated on production configured system or equipment by fleet personnel • Hardware or part number changes • COTS manuals have been evaluated using MIL-PRF-32216	I	IP	F
7.4.2 Verification and validation of software applications and other tools used to create, manage, update, present and view technical manuals has been completed. A quality assurance plan has been developed to ensure technical manuals and technical data packages have been validated and verified.	I	IP	F
7.4.3 A process for distribution of technical manuals is established.	I	IP	F
7.4.4 Approved technical manuals will be available to support the end item and peculiar support equipment and in the quantities required, and have been registered in the authoritative database.	I	IP	F
7.4.5 A feedback process is established to update or correct technical manuals.	IP	F	U
7.4.6 An approved Calibration Requirements List is available to support the end item and all peculiar installed instrumentation.	I	F	U
7.4.7 Technical manuals and IETMs include notes, aids and procedures to minimize environmental risks and personnel exposure during maintenance activities, such as warnings, cautions, etc.	I	IP	F
7.4.8 The contents of the product/technical manuals have been integrated into the IETM, considering the following: • Contents meet web enabled DoD requirements as applicable • Phased development schedule is in parallel with the system development, including validation and transition to the services • Operator/maintainer training is embedded and job performance aids included		IP	F

8.0 Support Equipment and Test Equipment (SE&TE)	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
8.1 General Requirements			
8.1.1 The environmental and physical constraints, such as size, weight, power, temperatures and interfaces have been factored into SE&TE design (ref. DoD 5000.02, SNI 5000.2, OPNAVINST 3960.16, DON ATE & TPS Acquisition Handbook, MIL-HDBK 2097).	F	U	U
8.1.2 There are no environmental and physical constraint issues (e.g., size, weight, power, temperatures and interfaces) between the SE&TE and hosting platform.	I	IP	F
8.1.3 Analyses to identify the optimum mix of automatic and manual fault detection and isolation equipment at each applicable maintenance level has been conducted (ref. DoD 5000.02, SNI 5000. 2, OPNAVINST 3960.16).	IP	F	U
8.1.4 Common SE&TE vs. peculiar SE&TE (new development) decision has been considered (see references above).	IP	F	U
8.1.5 Types and quantity of SE&TE for each location are available to support test of fielded systems.		IP	F
8.1.6 Overall support strategy for SE&TE has been defined, and includes identification of the following: • Support equipment requirement documents • Supply Support • Interim Spares • Manpower • Training • Technical Data • Maintenance Levels and maintenance task requirements • Computer Resources Support • Calibration • Facility Requirements • SE&TE to support the SE&TE	IP	F	U
8.1.7 Required technical documentation to support the SE&TE is identified and includes: • Procedures to perform the required tests and diagnostics • Test measurement and diagnostic equipment, calibration requirements, procedures and associated technical parameters • All product/technical data required to support and operate required support equipment throughout the life cycle of that product • Test fixtures and/or interfaces to connect the system to the test equipment	IP	IP	F
8.1.7(a) For ships/submarines, applicable milestones are:	IP	F	
8.1.8 Requirements for the testing of SE&TE during TECHEVAL, SUPEVAL, etc. have been identified (see above references).	F	U	U
8.1.9 Test Program Sets (TPSs) and associated documentation have been evaluated and verified.			IP

8.0 Support Equipment and Test Equipment (SE&TE)	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
8.1.10 Availability of calibration standards and procedures, SE&TE, TPS and tools at required maintenance sites and training schools have been verified, including types and quantity of SE&TE for each location (see above references).	IP	F	U
8.1.11 SE&TE has been identified in the COSAL/Navy Tactical Command Support System database, Ships Portable Electrical/Electronic Test Equipment Requirement List (SPETERL) as appropriate.		IP	F
8.1.12 SE&TE has been identified in the AVCAL, as appropriate.		IP	F
8.1.13 A plan has been developed for certifying SE&TE for shipboard use.		F	
8.1.14 SE&TE has been certified for shipboard use. An installation change document has been developed for any changes to the ship configuration resulting from SE&TE requirements.		IP	F
8.1.15 For Major Defense Acquisition Programs (MDAPs), a plan for preservation and storage of unique tooling has been provided as an annex to the LCSP. It includes: • Identification of any contract clauses, facilities, and funding required for the preservation and storage of such tooling and shall describe how unique tooling retention will continue to be reviewed during the life of the program • Unique tooling designated for preservation and storage will be serially managed and meets the requirements of IUID per DoDI 8320.04 (ref. OSD(AT&L) memo dtd 3 Aug 09, Preservation and Storage of Tooling for Major Defense Acquisition Programs)	IP	F	U

9.0 Training and Training Support			
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
9.1 Training System Planning and Execution			
9.1.1 A Front End Analysis is conducted (ref. OPNAVINST 1500.76 and Marine Corps ref. Manpower & Training Analysis Manual).	IP	F	U
9.1.2 The Training Systems Plan (TSP)/Manpower, Personnel and Training Plan (MPTP) is approved as delineated in SNI 5000. 2.	IP	F	U
9.1.3 Job Task Analysis data is conducted and maintained throughout the acquisition process.	IP	IP	U
9.1.4 Training facility requirements have been socialized with applicable training commands and Chief, Naval Installations Command (CNIC) N4.	I	IP	F
9.1.5 Resource requirements are specified for training equipment, services, calibration standards, test equipment, materials, facilities, manpower and personnel. Training facilities, trainers, and units dedicated for training can handle throughput for both personnel and hardware to include consideration of footprint, maintenance environmental requirements and constraints, etc. Requirements to bring training onboard a host platform, including Local Area Network (LAN) based computer training, has been coordinated.	IP	F	F
9.1.6 Training tasks are derived from the approved Job Tasks, Conditions and Standards. Analyses are conducted to determine which tasks are trained, not trained, over trained or supported by performance support solutions.			IP
9.1.7 Instruction supports performance requirements defined by Government approved Job Tasks Statements, Conditions, and Standards. Instruction that is designed, developed and delivered is documented in the TSP. Examples include: • Formal schools, on-the-job-training and follow-on training • System operation, maintenance levels, and calibration requirements (e.g., daily, weekly, monthly, quarterly, and on condition) • Individual and team training • Instructor training • Video on-demand • Quick Reference Guides • Job Performance Aids • Virtual training	I	IP	F
9.1.8 Operator, maintainer, and calibration training along with job performance aids are embedded in the IETM, where applicable.	I	IP	F
9.1.9 Terminal and enabling learning objectives are derived from the approved Job Tasks and Training Tasks and a learning analysis. The objectives should be formatted per service training development guidance.	I	IP	F
9.1.10 Initial production equipment and technical manuals for the new system's delivery and installation schedule must be planned so that trained personnel shall be available for the first operational unit (ref. OPNAVINST 1500.76).	I	IP	F
9.1.11 The effectiveness of training, using measures such as MTTR, is measured and corrective action implemented when required.			IP

9.0 Training and Training Support			
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
9.1.12 Training is being executed per the training plan.			F
9.1.13 Instructor training (train the trainer) is included in the training requirements planning documentation.		IP	F
9.1.14 Initial Fleet training for Operational Evaluation and Service Introduction is in place (see above references).		F	U
9.2 Training Material			
9.2.1 Technical publications are developed prior to the development of training materials (ref. OPNAVINST 1500.76).	I	IP	F
9.2.2 Terminal and enabling learning objectives are derived through appropriate job task and learning analysis and formatted per service training development guidance (Naval Education and Training Command (NETC), CeTAR 1501.10, MIL-HDBK-29612-2, NAVEDTRA 131, and NAVEDTRA 130).	IP	F	F
9.2.3 Instructor guides, course curriculum, training aids, support equipment, and student guides are planned/developed for classroom training.	I	IP	F
9.2.4 Training courses are developed and training is conducted on the fielded configuration(s). This includes pre-faulted modules or software to simulate faults for diagnostics training.		IP	F
9.2.5 Safety procedures, warnings, cautions and advisory labels have been incorporated into training materials and curriculum.		IP	F
9.2.6 Contractor/government test and evaluation activities are used to validate training requirements.		IP	F
9.3 Training Product and Support			
9.3.1 Training simulators and devices are in place and instructor and support personnel have been trained on their use and maintenance (OPNAVINST 11101.1 and above references).	IP	F	U
9.3.2 A Training Transfer Agreement has been developed to ensure that all training resources and capabilities are in place to support execution of the transfer of responsibility for a complete training system from the training support agent to the training agent (ref. OPNAVINST 1500.76).	IP	F	U
9.3.3 Plans for the installation, transfer and support of training simulators and training devices have been executed.		IP	F
9.3.4 A military characteristics document or Training System Functional Description is prepared for each training device, defining its basic physical and functional requirements.		IP	F
9.3.5 Delivered content uses an Information Assurance compliant delivery mechanism, and has been accredited.			F
9.3.6 Logistics support (spares, training and support equipment, etc.) for training schools is planned.	IP	F	U
9.3.7 Training to support Urgent User Operational Need (UUON) /Joint Urgent Operational Need (JUON) deployments are in place and adequate.			F
9.3.8 Feedback loops exist that allow operating forces to inform the training command and program manager of training shortfalls or changes needed as a result		IP	F

9.0 Training and Training Support			
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
of experiences obtained in an operating environment.			
9.3.9 If applicable, Inter-service training agreements have been established or updated.	IP	F	U
9.3.10 If applicable, requirements for training system integration into live, virtual, and constructive training environments have been planned for or met.	IP	F	U

10.0 Manpower and Personnel			
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
10.1 Human Factors Engineering (HFE)			
10.1.1 Human Engineering analysis has been performed addressing operator, maintainer and support personnel (ref. SNI 5000.2, MIL-STD-46855): • Accessibility • Visibility • Human factors/ergonomics • Testability • Complexity • Standardization and interchangeability • Use of mock-ups, modeling and simulation • Operational experience • Workspace Environment - heating, cooling, ventilation, illumination, noise, vibration • Design for effective handling and carrying • Controls and displays • User computer interface • Habitability • Safety and personnel survivability • Workload	IP	F	U
10.1.2 Broad cognitive, physical and sensory requirements for the operators, maintainers and support personnel that contribute/constrain to total system performance have been analyzed.	IP	F	U
10.1.3 A Human Systems Integration (HSI) plan has been developed, executed and maintained, and has been coordinated with subsystem HSI plans and the overall SEP.	IP	F	U
10.2 Manpower and Personnel			
10.2.1 Manpower mix data for operation and maintenance of the program has been developed and incorporated into independent cost estimates and DoD Component cost estimates per DODI 5000.2. A Manpower Estimate for operation and maintenance of the program has been developed and approved by the manpower authority for all programs (ref. DoDI 5000.02, SNI 5000.2, OPNAV Instruction 5310.23, OPNAVINST 9640.1 and OPNAVINST 1000.16).	F	U	U
10.2.2 Manpower and personnel requirements have been identified for both organic and contractor support including: • Knowledge, skills, and abilities • Maintenance, calibration, operator and support provider labor hours by rate or skill area/level by year • Number of personnel by rate, maintenance level and year • Operator, maintainer and support provider organizational level assignments defined • Inherently government tasks	IP	F	U

10.0 Manpower and Personnel			
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
• Peacetime and Wartime			
10.2.3 Maintenance and calibration task times, maintenance and calibration skill levels and number of maintenance and support provider personnel required have been derived from task and workload analyses (see Maintenance Planning).	IP	F	U
10.2.4 Requirements for both organic and contractor manpower requirements are validated under representative operating conditions.		IP	F
10.2.5 Changes (increases and/or decreases) in manpower and personnel requirements have been identified for any transition period between systems.	IP	F	U
10.2.6 Manpower and personnel requirements include affected duties beyond operational, maintenance and support (e.g., watch standing, collateral duties).		IP	F

11.0 Facilities and Infrastructure	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
11.1 Facility Requirements (New and Existing)			
11.1.1 The types of facilities/infrastructure operations, calibration, maintenance, storage, power, and training required to support and sustain the new or modified system have been identified, such as: • Berthing space for ships (including utilities, dredging, special deck structural requirements for crane loads (current and next generation weapons), crane operations, loading/offloading logistics , nesting capabilities, and fendering systems) • Physical layout requirements for parking aprons and hangar space for aircraft (new and legacy) along with operational weight loads/constraints for hanger floor, aprons, taxiways and runways • Support facilities (berthing, administrative, operational), supply warehouses, transit sheds, maintenance (structural, utilities, and technology based) facilities, calibration laboratories, dry-dock capability, training facilities, and ordnance handling and storage (for both classrooms and trainers for operational training and maintenance training, including required product/technical data to ensure efficient/effective support of facilities) • Land use requirements have been identified (as early as possible). • National Environmental Policy Act documentation may also require mitigation that can impact schedules and cost. Some issues that pertain to both land use and Basic Facility Requirements are: Noise Air Installation Compatible Use Zone, Ordnance Explosive Safety Quantity-Distance, leasing agreements, encroachment, natural resources, cultural and historical assessments, etc. • Facilities to support Research, Development, Test and Evaluation and In-service engineering requirements (e.g. prototypes, mock-ups, etc.). Refer to 14 April 2016 PDASN (EI&E) and DASN (RDT&E) Joint Memorandum Naval Research and Development Establishment Infrastructure Planning • Transient support requirements when the system requires some level of support for continental US and outside continental US activities that are not regular homeports/support sites • Ordnance handling and storage support/maintain inventory delivery projections at locations required for operational requirements; planning assessment must consider existing load plan space utilization and impact to the established explosives safety quantity distance for all ordnance and any special facilities storage and space requirements to support weapons system. Assessment to include capability and capacity review of port, storage and maintenance facilities, handling equipment electrical support, new weapons systems storage requirements, manpower required for movement, assembly, disassembly, and/or maintenance to support the weapons system Refer to: Action Memo New Systems Military Construction (MILCON) Funding Rules and Responsibilities dated 6 July 07 N8, MIL-HDBK-1190 – Facility Planning, OPNAVINST 11010.20 - Facilities Project Instruction,	IP	F	U

11.0 Facilities and Infrastructure	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
OPNAVINST 11102.2 Training System Installation Plan, UFC 2-100-01 Master Planning, NAVFACINST 11011.44 - Shore Facilities Planning, NAVFAC Shore Facilities Planning System Guidebook, and NAVFAC SETR Facilities Checklist			
11.1.2 Once facility requirements are identified, a sensitivity analysis is performed by the program office or Naval Facilities Command to understand the sequencing/timing of shore support/facility investments to enable resource sponsor PPBE processes	I	F	U
11.1.3 Requirements Identification and Validation -The facilities and infrastructure support requirements are documented in a facilities planning document such as the NAVFAC Program's Facilities Planning Criteria (FPC) document, Platform Basic Facilities Requirements (PBFR) document, and Facilities Management Plan (FMP)	I	F	U
11.1.4 The program office coordinated with NAVFAC Headquarters Integrated Product Support office to ensure the Shore Facilities Planning System (SFPS) process is followed. NAVFAC is the Technical Authority for facility and infrastructure (Ref. Weapon System Facility Planning Consistency Guide). Note: The NAVFAC IPS process is considered a best practice. • For further definition of Facilities Planning Criteria (FPC); Platform Basic Facilities Requirements (PBFR); Facilities Management Plan (FMP) please refer to "Facilities Documents and Planning Processes" in Table A-1 of Appendix A • For a more detailed description of NAVFAC coordination offices Facilities Management Division (FMD), Environmental (EV) Branch, and Asset Management (AM) Branch and the Assistant Regional Engineer (ARE) please refer to "Facilities Documents and Planning Processes" in Table A-1 of Appendix A	I	IP	F
11.1.5 If the IPS process is not used, Platform support and BFRs are provided to the naval activities/regions expected to support operations, maintenance, calibration, training and other logistical support related to the system as required by the Service (e.g., Navy or USMC).	IP	F	U
11.1.6 Site surveys have been conducted and the proper coordination was made with the installation facilities staff. The results have been documented in a Site Evaluation Report which will be used to inform a Site Activation Plan and other appropriate facility project documentation (e.g. DD1391 for MILCON project). Note: If repair/support facilities cannot be completed in time to meet mission requirements and satisfy the basic facilities requirements, a designated source of repair/support or workaround has been identified and received Fleet concurrence.	IP	F	U
11.1.7 Site surveys have been conducted for all facilities that will store and process ammunition and explosives. Logistics of current (and anticpated) ammunition and explosives receiving, transportation, storage, removal, staging, loading, unloading have also been evaluated. While surveys are coordinated with the host activity, they must include coordination with the tenant activity (e.g., user representative). Surveys should include and consider the following:	IP	F	U

11.0 Facilities and Infrastructure	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
• Adequate space to store planned for ammunition and explosives, impacts to existing safety arcs and ATFP setbacks, as well as any identified surge capacity requirements • Adequate space to operate weapons handling devices considering turning radius of fork lifts, location of overhead cranes, etc. • Constraints for movement of A&E between buildings, barges, or gaining platforms • Storage locations are adequate to prevent moisture intrusion (seepage), and environmental controls and monitoring are in place commensurate with the stated storage requirements for the system (ref. OP4, Munitions Ashore and OP5, Munitions Afloat)			
11.1.8 All installation host tenant agreements are in place (Refer to NAVSO P1000 Financial Policy Manual) and are coordinated with Region's ARE and CNIC N8.	IP	F	U
11.2 New Construction			
11.2.1 Formal home porting decisions with appropriate environmental documentation have been completed and a Basing Letter and/or Record of Decision have been signed. This permits the coordination of projects with Navy Regions and ensures successful promulgation through Force Management Budget, DoD and congressional authorization.	IP	F	U
11.2.2 Funding for new construction or MILCON has been included in the Program Objectives Memorandum accordance with the NAVFAC MPT3 process.	IP	F	U
11.2.3 Environmental documentation for projects per National Environmental Policy Act (NEPA)/Executive Order (EO) 12114 is either complete or scheduled for completion to support the timelines for new construction or modification of existing facilities.	IP	F	U
11.2.4 Approved construction of MILCON projects have been initiated and are on track to support introduction of the new or modified system to the user.	IP	F	U
11.2.5 Where applicable, interim facility support (aka "workaround") has been identified to meet requirements earlier than can be met by the completion of new facility projects.	IP	F	U

12.0 Computer Resources and Software Support	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
12.1.1 A computer and software security plan, including safety, has been developed. Program is following DoD Risk Management Framework and developed a System Security Authorization Agreement. Systems comply with DON Public Key Infrastructure Policy.	IP	F	U
12.1.2 A Program Protection Plan has been developed in accordance with DoD Instruction 5200.39, "Critical Program Information (CPI) Protection Within the Department of Defense," which includes: • Anti-Tamper requirements and the USD(AT&L) Memo "Document Streamlining - Program Protection Plan (PPP). • Supply Chain Risk Assessment in accordance with DoDI 5200.44 • Counterfeit parts identification in accordance with SECNAVINST 4855.20 Note: The Anti-Tamper Plan is an Annex to the Program Protection Plan (ref. DoDI 5000.02)	F	U	
12.1.3 Software functional requirements and associated interfaces have been defined.	IP	F	U
12.1.4 Gap analysis has been performed on candidate COTS software to identify functionality shortfalls, as applicable.	IP	F	U
12.1.5 Requirements for system firmware and software documentation have been identified and integrated into the overall system test program.	IP	F	U
12.1.6 Software testing requirements have been identified and integrated into the overall system test program.	IP	F	U
12.1.7 Measures of effectiveness have been established for software.	IP	F	U
12.1.8 A software development plan has been developed and reflects program milestones.	IP	F	U
12.1.9 Software maturity has been measured.	IP	F	U
12.1.10 Software data rights have been addressed in the Engineering and Manufacturing Development RFP and contract. Required software data rights have been obtained.	F	U	U
12.1.11 CBM/CBM+ software is developed for the operating and maintenance system for diagnostics and prognostics, as applicable.	I	F	U
12.1.12 Software routines for planned maintenance procedures are addressed in PMS.	I	F	U
12.1.13 The SSA has been designated/established.	I	IP	F
12.1.14 Software support is described in the LCSP and implementing documentation.	IP	F	U
12.1.15 A process has been defined to manage (create/discard/track/close) software trouble reports that will be levied against the software product.	I	F	U
12.1.16 A mechanism is in place for getting prime contractor (and subcontractor) support specific to support software/equipment, if needed, at the SSA's (e.g. resident expert help).	I	IP	F
12.1.17 A process has been established for distributing corrections and revisions of the software to the users.	F	U	U
12.1.18 There is adequate reserve capacity (processing unit, memory, disk space, bus	I	F	U

12.0 Computer Resources and Software Support	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
capacity, etc.) for the life of the system to accommodate changes, expansion and growth of the software. The hardware may be easily upgraded without impacting the software.			
12.1.19 There are plans for processor upgrades so that tech refresh may be accomplished with minimal software modifications.	F	U	U
12.1.20 HSI considerations have been incorporated into software development, integration, and test phases. This effort includes graphical user interface, usability testing, control and display layout, human error/reliability analysis, and on-line user guides and documentation.	I	F	U
12.1.21 Software integrator and development contractors for Naval software systems have well-documented, standardized software processes as well as continuous software process improvement practices.	F	U	U
12.1.22 A process to proactively project vendor discontinuance of software support, software revisions, upgrades, etc. has been developed and documented to ensure both program software and software support tools can be sustained and software refreshes can be adequately planned.	F	U	U
12.1.23 Software support planning requirements/data (e.g. these handbook criteria) are presented in the Information Support Plan (ref. SNI 5000.2).	F	U	U
12.1.24 A software configuration control plan has been developed and is implemented.	F	U	U
12.1.25 All Authority To Operate approvals are in place for applicable software applications.	F	U	U
12.2 Software Centric System Specific Criteria			
12.2.1 A proactive process is in place for de-support of software to include system and third party software to effectively: • Forecast software sustainment issues and identify time periods for software availability and support • Capture cost trade-off criteria for full or partial software updates • Identify upgrade schedules to reduce transition costs associated with updates • Identify accurate budget estimates • Provide a process that can be used to help manage and optimize the efficiency and effectiveness of software tech refreshment	I	IP	F
12.2.2 Data and Resources agreements, such as a MOA between the gaining system activity and the transferring system activity are approved and detail the actions required by each activity.		IP	F
12.2.3 Agreements, such as a MOA between the program management office and gaining commands are current.		IP	F
12.2.4 A data migration plan has been developed for transfer of data from legacy systems.	IP	F	U
12.2.5 Interfaces for migration of data between systems have been defined.	F	U	U
12.2.6 Middleware requirements have been defined.	F	U	U

12.0 Computer Resources and Software Support	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
12.2.7 Middleware has been developed.	F	U	U
12.2.8 A methodology and process for data cleansing, data translation mapping, and data validation have been documented in a data migration plan.	IP	F	U
12.2.9 Data conversion has been completed per Data Conversion Agreements.			F
12.2.10 Data cleansing, data translation mapping, data validation and resources are completed.			F
12.2.11 MOAs between the gaining system activity and the transferring system activity are approved and detail the actions required by each activity.	IP	F	U
12.2.12 Mock loads with actual data have been conducted with no outstanding issues prior to cut-over.	IP	IP	F
12.2.13 The system is meeting its RAM measures and KPPs/KSAs.	I	IP	F
12.2.14 The Disaster Recovery/Secondary Site is fully operational. Disaster recovery reliability is factored into overall system reliability.		IP	F
12.2.15 Agreements are current for the command/activity hosting the disaster recovery center.		IP	F
12.2.16 Help desk response metrics are tracked and are meeting the metrics defined in the support agreement and requirements documents. Help desk metrics are factored into the reliability of the system.		IP	F
12.2.17 Trouble calls/tickets to the help desk are processed through a FRACAS as input to the reliability program.	I	IP	F
12.2.18 Processes for the help desk are adequate for recompete with another provider.		IP	F
12.2.19 Help desk staffing and KSAs of personnel is adequate to support functions required by the help desk.			F
12.2.20 System Architecture has been defined to include redundancy, modularity, etc. and impact on availability due to server failure.	IP	F	U
12.2.21 Requirements for a Disaster Recovery/Secondary Site have been developed. Disaster Recovery reliability is factored into overall system reliability.	IP	F	U
12.2.22 Agreements are in place for the command/activity hosting the disaster recovery center.	F	U	U
12.2.23 Requirements for the help desk have been defined and factored into the reliability of the system.	F	U	U
12.2.24 Help desk procedures have been established.	IP	F	U
12.2.25 Help desk staffing and KSAs of personnel is adequate to support functions required by the help desk.		IP	F

13.0 Product Support Budgeting Funding	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
13.1 Cost Estimating			
13.1.1 A Program LCCE has been approved by the Director of the appropriate SYSCOM cost organization for the program (all ACATs) (ref. DoDI 5000.02, SNI 5000.2, SNI 5223.2).	F	U	U
13.1.2 A Cost Analysis Requirements Document has been developed by the program office for ACAT I programs and ACAT II programs if an Independent Cost Estimate (ICE) is required. These are approved by the Director of the appropriate SYSCOM cost organization (ref. DoDI 5000.02, SNI 5000.2, SNI 5223.2).	F	U	U
13.1.3 An ICE is completed for ACAT I programs conducted by the Cost Assessment and Program Evaluation or Naval Center for Cost Analysis (NCCA) (as appropriate). An ICE or Independent Cost Assessment (depending on MDA option) is completed for ACAT II programs (ref. DoDI 5000.02/SNI 5000.2, SNI 5223.2). A comparison of the results of the ICE and PLCCE for the costs of logistics support (for both acquisition, and operations and support) is available for review.	F	U	U
13.1.4 A component cost analysis has been conducted by the NCCA (ACAT IA) (ref. DoDI 5000.02, SNI 5000.2, SNI 5223.2).	F	U	U
13.1.5 Logistics funding requirements are developed using accepted cost estimating methodologies appropriate to the program phase (ref. DoDI 5000.02, SNI 5000.2).	F	U	U
13.1.6 The program has conducted Should Cost analyses to identify the availability of cost reductions in logistics operations (for both acquisition and sustainment operations). And, in those instances where advantageous and actionable logistics cost savings are available, the program manager has developed, and is tracking and reporting Should Cost estimates on the savings (ref. SECDEF Memo 22 Apr 11, USD (AT&L) Memo 22 Apr 11, ASN (RD&A) Memo 19 Jul 11).	F	U	U
13.2 Funding			
13.2.1 The program budget is funded to the requirements identified in the ownership cost estimates.	IP	F	U
13.2.2 A LRFS has been established and kept updated that identifies all appropriations (ref. SNI 5000.2): • The LRFS supports the budgetary requirements of the logistics support plan and requirements documentation and is appropriately phased • Rationales to support the funding amounts in the LRFS are documented • The correct appropriations are identified for each logistics requirement for each fiscal year. These are properly phased in advance of requirements to account for procurement lead time, especially for spares and materiel • Funding shortfalls and impacts are identified, prioritized, fully documented and addressed to the program manager and resource sponsor • LRFS numbers/dollars are traceable to appropriate budget exhibits	F	U	U
13.2.3 Life-cycle cost estimates, including cost reduction efforts have been developed and validated optimizing Total Ownership Costs (TOCs).	F	U	U

13.0 Product Support Budgeting Funding	Milestones		
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
13.2.4 Funding requirements identified in the replaced system sustainment plan are identified and funded, as appropriate.	F	U	U
13.2.5 TOC analysis is being performed, including fielding and Operational and Support costs to date.	F	U	U
13.2.6 Post-IOC cost estimates and the projection of the TOC objective versus Service Cost Position (SCP) baseline are substantiated by assessed fielded systems performance, operations, and sustainment related expenditure to date.			I

14.0 Environment, Safety and Occupational Health (ESOH)			
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
14.1 Environment			
14.1.1 A Programmatic Environment, Safety, and Health Evaluation (PESHE) has been developed and describes: • ESOH Integration: The strategy for integrating ESOH considerations into the systems engineering and overall risk management process using the methodologies in the Standard Practice for System Safety, MIL-STD-882 and identification of responsibilities for implementing the strategy (SECNAVINST 5000.2, MIL-STD-882, OPNAVINST 5100.24, OPNAVINST 5090.1) • Hazard Tracking: Identification and status of ESOH risks including approval by proper authority for residual ESOH risks (SNI 5000.2, OPNAVINST 5100.24, OPNAVINST 5090.1, MIL-STD-882) • ESOH Compliance: System's compliance with all existing and reasonably anticipated applicable Federal, State, local, DoD, Navy and international requirements with respect to environmental protection, pollution prevention, and safety (for both systems and personnel) and occupational health. • NEPA/EO 12114: A compliance schedule of activities that may require (NEPA)/ EO 12114 documentation including the approval authority of the documents as detailed in DoD and DON policy (SNI 5000.2, OPNAVINST 5090.1) • Systems Safety: The Engineering and Logistics efforts being implemented to identify systems and occupations safety hazards (OPNAVNST 5100.24, MIL-STD-882) • Hazardous Materials Management & Pollution: The Engineering and Logistics efforts being implemented to identify hazardous materials, wastes, and pollutants (discharges/emissions/noise) associated with the system (ref. SNI 5000.2, MIL-STD-882, OPNAVINST 5090)	F	U	U
14.1.2 The NEPA/EO 12114 Compliance Schedule is maintained and continuously updated by the program with all known or projected activities. Start and end dates for activities and documents are filled in wherever possible. Significant program events that could trigger NEPA/EO 12114 are included in the NEPA/EO 12114 Compliance Schedule. Significant program events could include: • Conducting test and evaluation of the system and/or subsystem • Contracting for production • Planning basing, training, and home porting location • Planning new or major upgrades to facilities or supporting infrastructure to support the system • Demilitarization/disposal of the system (SNI 5000.2, OPNAVINST 5090.1)	F	U	U
14.1.3 The NEPA/EO 12114 Compliance Schedule reflects appropriate use of CATEXs and the MFR process (ref. OPNAVINST 5090.1)	F	U	U
14.1.4 The program maintains the documents listed in the NEPA/EO 12114 Compliance Schedule (i.e. CATEX, FONSI, ROD, At Sea MFR) documents discuss decision results (ref OPNAVINST 5090.1).	F	U	U

14.0 Environment, Safety and Occupational Health (ESOH)			
ASSESSMENT CRITERIA	**B**	**C**	**FRP/ FDD**
14.1.5 All known ESOH risks have been accepted by the appropriate approval authority. The user representative has provided formal concurrence prior to all serious and high risk acceptance decisions (ref. SNI 5000.2, MIL-STD-882).	IP	IP	F
14.1.6 Weapon System Explosive Safety Review Board approval is scheduled or obtained.		IP	F
14.1.7 ESOH requirements are addressed in the ICD/CDD/CPD. Requirements flow down to other programmatic documents and RFP/contract as appropriate (SNI 5000.2, OPNAVISNT 5100.24, OPNAVINST 5090.1).	F	U	U
14.1.8 The strategy and plans for the demilitarization and safe disposal of the system are developed (SNI 5000.2, OPNAVISNT 5090.1).		F	U

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Part III – Conducting Post-FRP/FDD ILAs

3.1 Introduction

The following paragraphs address the process specific to Post-FRP/FDD ILAs. The Post-FRP/FDD ILA processes are different from the acquisition ILA process. The focus of the Post FRP/FDD ILA is on the ability of the SYSCOM or PEO and using community to sustain the product provided to the user and the user's experiences with the product.

During the Production and Deployment and the Operations and Sustainment phases, ILAs are conducted to assess the performance effectiveness, affordability, and customer satisfaction of product support execution after and periodically over the life of the program as defined under paragraph 3.2, Timing, and are not conducted in support of a milestone. Post-FRP/FDD ILAs will address each IPS element as applicable, including in-service metrics established in the program's requirements documents. These reviews will verify the adequacy of logistics execution, identify any deficient areas, provide resolution plans coordinated with the end user, and provide the major input to Post-IOC sustainment reporting. Post-FRP/FDD ILAs assist the program manager in successful implementation of total life cycle management of the product support strategy and may be part of a program's Post-Implementation Review process. For ACAT I programs, Post-FRP ILAs must also report on the sustainment elements identified in Section 849 of the 2017 NDAA, listed below. The applicable "Acquisition Team Product Support Elements" identify the NDAA criteria. A status of those elements shall be documented in the ILA report and be summarized in the appendix to the LCSP that documents the results of the ILA. Those elements are:

1. An assessment of the independent cost estimate for the remainder of the life cycle of the program.
2. A comparison of actual costs to the amount of funds budgeted and appropriated in the previous five years, and if funding shortfalls exist, an explanation of the implications on equipment availability.
3. A comparison between the assumed and achieved system reliabilities.
4. An analysis of the most cost-effective source of repairs and maintenance.
5. An evaluation of the cost of consumables and depot-level repairables.
6. An evaluation of the costs of information technology, networks, computer hardware, and software maintenance and upgrades.
7. As applicable, an assessment of the actual fuel efficiencies compared to the projected fuel efficiencies as demonstrated in tests or operations.
8. As applicable, a comparison of actual manpower requirements to previous estimates.
9. An analysis of whether accurate and complete data are being reported in the cost systems of the military department concerned, and if deficiencies exist, a plan to update the data and ensure accurate and complete data are submitted in the future.

The role of the user, typically the maintainer and operator, is to identify any sustainment related issues, shortcomings or anomalies with the system. Personnel from the NCCA shall assess the cost related items (1, 7 and 9) for these ACAT I Post-FRP ILAs.

3.2 Timing

ILAs will continue to be conducted after FRP/FDD, with the first ILA occurring two years after the FRP decision/FDD. These will be conducted on a periodic basis. The default periodicity for conducting Post-FRP/FDD ILAs is every five years; however, the following conditions may trigger an ILA earlier. These triggers include:

- Operational Availability (A_o) or Materiel Availability (A_m) drops by 10% or more for 12 consecutive months

- Ownership cost KSA is > 10 % from stated requirements for 12 consecutive months
- For Automated Information business systems, periodicity is established by triggers identified by the PEO or SYSCOM

If either of these triggers occurs, the SYSCOM, PEO, program manager or the program sponsor will initiate an ILA.

3.3 Process

There are various approaches that are acceptable to accomplish the goal of the Post-FRP/FDD ILA, as described below:

a. Utilize an assessment team in coordination with the PEO/SYSCOM ILA Lead consisting of SMEs skilled in sustainment and the assessment criteria contained in paragraph 3.4, as well as representatives from the user community to conduct the assessment.
b. Leverage existing annual or semi-annual user reviews that assess program supportability risks and issues. Risk mitigation or issue resolution recommendations are considered, and business case analyses are adjudicated by stakeholders. The ILA team participates in these reviews by providing SMEs as appropriate to review programmatic elements. In some cases this may consist of the team lead only.

Regardless of the approach and report format, the ILA team lead (and NCCA for ACAT I programs), as a minimum, still participates in the assessment and the ILA competency lead (or team lead per SYSCOM/PEO policy endorses the report as being conducted independently and satisfying the requirements of SECNAVINST 4105.1. The approach should receive concurrence from DASN(ELM) and be documented in the respective PEO or SYSCOM internal ILA procedure.

The selected team lead should follow the same process as they would during an acquisition ILA, which are described under section 2.5 of this guide. However, there are some differences, identified below:

- Step 2: For Post-FRP/FDD assessments, request a tailored listing of assessment criteria based on Appendix A, as applicable
- Step 7: Review Requirements, Capabilities and Metrics: It should be noted that some documents or material to be reviewed may differ or the original requirement, which may have changed due to operations or threat conditions
- Step 8: Review Logistics Documentation and Execution: No process changes for the acquisition team, although some documents or material to be reviewed may differ. However, the user assessors may receive a separate brief and response to the questions for each criterion that can be modified and e-mailed back to the team lead or user point of contact
- Step 12: Draft Report: Rating Criteria for Post-FRP/FDD ILAs differ than the acquisition phase ILAs
- Step 14: Issue the Final Report: Distribution of report is defined by the SYSCOM or PEO but includes DASN(ELM) and stakeholders
- Step 15: Issue Product Support Certification: Post-FRP/FDD ILA reports are not certified

3.4 Assessment Criteria

As identified previously in Paragraph 2.4 of this document, the assessment criteria are used to holistically assess the supportability of a program, not just the functions that fall under the purview of the logistics manager. The Post-FRP/FDD Product Support Element assessment criteria are broken into two tables. The first part provides the criteria for the user in the form of questions. Each of these user questions should be edited by the team lead as needed to incorporate follow on questions and system specific criteria. The boxes can also be expanded so the user can document their feedback for each question. The second table contains items that the acquisition team should assess and are not presented in question form. The acquisition team members should follow the same process as they would during an acquisition ILA.

As stated in the introduction of this section, the primary assessor for the Post-FRP/FDD ILA is the user, typically represented by the operator and maintainer. Many programs conduct periodic user meetings to review sustainment issues, which are typically attended by operator/maintainer personnel. If the ILA leverages off these meetings, it is recommended the scope and process for conducting the ILA be briefed to the users. Some suggested items are provided below:

- Provide the user with a brief understanding of the goals of the ILA, as well as the process specific to the user. It should provide information on how the ILA will assist the user in correcting sustainment deficiencies that they may be experiencing.
- Provide the user with sample findings from a previous Post-FRP/FDD ILA (specific program information should be redacted if using findings from another program).
- Advise the user that they should just report issues; the team lead/acquisition team will research any concerns provided by the user and validate if it is a finding or opportunity for improvement. Requesting the user to review requirements documents will not provide results.
- Provide the user with the assessment criteria in this section. The ILA team lead should edit (add/delete/modify) the user criteria to make them more platform specific and add any additional follow on questions.
- In ILAs where the user representatives will go back to their Command and provide feedback via e-mail, the team lead should e-mail the criteria to each user POC as they will often socialize it through their squadrons for additional input.
- It is recommended that a senior enlisted or commissioned officer user be nominated as a co-lead (if one is not already assigned) to help coordinate inputs.
- The ILA team lead and acquisition team members should review user inputs against the requirement's documentation to determine if the issue is against a requirement or planning shortfall. In those cases a finding should be documented using the criteria in the appendices of this document. If the user reports an issue that is not against a requirement or not a shortcoming in planning, then that issue can be documented as OFI. An OFI is submitted as part of the report but does not have to be acted on for corrective action.

User Criteria

The following table provides a set of assessment criteria in the form of questions to help guide the user through an assessment of product support implantation. The ILA team lead should edit or modify the pertinent questions based on the user background, system specifics, and organization. These criteria should be modified, as applicable, to be product specific and provide follow on questions as needed. These criteria can be e-mailed to the user for completion at their duty stations, as appropriate.

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USER TEAM ASSESSMENT CRITERIA	Response
1.1 Product Support Management	
1.1.1 Are MOAs/MOUs or other formal agreements needed between the program office and other activities such as the gaining command, host platform, user, field activities, software support activities, etc. to ensure adequate support is provided to the user? 1.1.1(a) Are there any issues where the user is not getting the required support from the host command/platform, field activity, etc.? Please provide additional detail if there are issues?	
1.1.2 Is the configuration of items received from supply the correct configuration (revision)? • If no, what issues are there?	
1.1.3 What processes are in place for the user to collect sustainment performance metrics? • Is that system effective?	
1.1.4 Have shipboard storage requirements (workspaces, storage, spaces and storage for ordnance) been identified and spaces allocated?	
1.1.5 Is the proper amount of bandwidth is available on the host platform to support communications and required data flow between the user and host platform, and host platform and base or shore activity?	
1.1.6 Are there any integration issues on board Naval ships (height, turning radius, etc.)?	
1.1.7 Are there any integration issues with external systems (radios, C4I, etc.)?	
2.1 Design Interface	
2.1.1 Is the "As planned for" sustainment posture still valid to meet mission requirements or does the actual usage profile differ than what was planned for (has the profile changed and is it impacting maintenance or operation of the system)?	
2.1.2 Has the requirements or mission profile changed since the system was fielded, or any modifications added (e.g., up-armor) that were not part of the original design? • If it has, are there any impacts to system performance and maintenance that have been identified and not addressed since the onset of the change? For example, has the system reliability, maintainability, and repair times degraded, spares consumption increased, and training requirements changed with no planned actions to mitigate or correct?	
2.1.3 Have reliability measures, such as Mean Time Between Failures (MTBF) and Mean Time To Repair (MTTR) been verified/updated and published to operational units? Is the system meeting its reliability measures?	
2.1.4 As part of the corrective maintenance process, do Fault Detection/Fault Isolation (FD/FI) (e.g., Built-In-Test (BIT)) anomalies such as false alarm rates or incorrect fault isolation get reported?	

USER TEAM ASSESSMENT CRITERIA	Response
3.1 Sustaining Engineering	
3.1.1 Are there any corrosion issues with the system? • If there are corrosion issues, are maintenance/corrective maintenance and repair actions outside the scheduled corrective maintenance actions and repair times?	
3.1.2 Is the normal corrosion preventative maintenance effective and is it documented? • If not, describe the deficiencies.	
3.1.3 What is the process for failure reporting and is it effective? • Is the user/using activity being provided feedback on the corrective actions taken to correct failures? • Is that feedback timely and does it provide the user with information they can use?	
4.1 Supply Support	
4.1.1 Is the user receiving spares in the time periods identified and are turnaround times being met both CONUS and during deployment?	
4.1.2 Are there any issues receiving spares in the "last tactical mile" (e.g., base, port or stock point to deployed user) and deployed systems in austere environments?	
4.1.3 Is there a system for adjusting spares availability based on consumption, usage, etc.?	
4.1.4 Do all parts have National Stock Numbers assigned that have viable sources of procurement/repair?	
4.1.5 Are the current spares allowances adequate to meet demand?	
4.1.6 Are spares received usable?	
4.1.7 Are allowances for deployed assets adequate to meet operational demands?	
4.1.8 Have item management codes been assigned, which include Source, Maintenance and Recoverability (SMR) codes and those for Hazardous Materials (HAZMAT)?	
5.1 Maintenance Planning and Management	
5.1.1 Are diagnostic, preventive and corrective maintenance and sparing concepts still appropriate? Are system maintenance actions, procedures performed still in keeping with published maintenance concepts and all authorized levels of maintenance?	
5.1.2 Are parts used in the preventive or corrective maintenance processes always documented with the supply system to register demand for those parts, including when the work is performed via a contract to a vendor?	
5.1.3 Are there any issues with conducting maintenance on a host command or platform (e.g., ship) such as space and/or power limitations? • Can ground vehicles be "exercised" as required during storage/shipboard (start engines, transmissions, charge batteries, etc.)?	

USER TEAM ASSESSMENT CRITERIA	Response
5.1.4 Does maintenance planning documentation adequately identify: • Tools and test equipment by task function and maintenance level? • Category codes (e.g., SMR codes, etc.)? • Manufacturer's part numbers, nomenclatures, descriptions, estimated prices and recommended SE&TE quantities?	
5.1.5 Do the actual maintenance skill levels and number of maintenance hours and/or personnel required exceed documented requirements? • Can maintenance (preventative and corrective) actions be completed by the qualified personnel in the time frames identified/required, using the prescribed manpower levels, in accordance with the Maintenance Allocation Charts?	
5.1.6 Is the amount and type of tooling and test equipment for maintenance and repair in accordance with stated allowances? • Are those allowances adequate?	
5.1.7 Have organic depot personnel been trained on the most current system configurations and are all required IETMs/ maintenance manuals and equipment in place to perform depot maintenance?	
5.1.8 Do FD/FI and diagnostics meet performance requirements (e.g., false alarm rates, percent fault isolation, etc.)? – Are there a high number of false alarm rates or is there incorrect fault isolation?	
6.1 Packaging, Handling, Storage and Transportation (PHS&T)	
6.1.1 Have PHS&T requirements for hazardous materials and associated wastes been identified and are processes in place for their storage, handling or disposal?	
6.1.2 Have all Material Handling Devices for loading, unloading to include CONREP and VERTREP been certified?	
6.1.3 For systems going onboard ships/submarines, are packaging systems; e.g. cushioning systems, compatible with shipboard handling equipment?	
6.1.4 Have supportability products (storage space and containers) been considered for sub-systems/components (e.g. aircraft or vehicles receiving guns, radios, etc.) of overarching systems?	
6.1.5 Is storage monitoring equipment installed as applicable, and are requirements included in technical manuals?	
6.1.6 Are MIL-STD-2073-1 packaging requirements for long term storage adequately defined to protect and preserve the system, to include storage space for preservation and packaging materials? Considerations include lubrication of the system, maintenance of batteries and seals to ensure minimal degradation.	
6.1.7 Are there any issues with accessibility for maintenance during long term storage?	
6.1.8 Are environmentally controlled storage spaces available/adequate for items requiring special storage requirements and/or shelf life limitations?	

USER TEAM ASSESSMENT CRITERIA	Response
6.1.9 Are anti-tamper requirements (and security processes while in storage and transit) identified for both hardware and software and factored into the maintenance planning for deployed systems? 6.1.9(a) Are there maintenance actions that cannot be accomplished as specified due to anti-tamper requirements/security restrictions?	
6.1.10 Are transportation processes and procedures for disabled systems (e.g., aircraft, ground systems) developed and adequate?	
6.1.11 Are there any issues with stowage/storage of ancillary systems (e.g., Blue Force Tracker, Radios)?	
6.1.12 Are there any interface issues between the system being transported and the transporting platform (e.g., height, turning radius, etc.)?	
6.1.13 Are there any issues with the reusable shipping and storage container designed for critical components?	
6.1.14 Are required reusable containers for shipping and storage both adequate and available when needed?	
6.1.15 Are there any items with packaging that needs to be improved?	
6.1.16 Are processes or procedures in place to ensure the care of items in storage e.g. a periodic storage surveillance process?	
7.1 Technical Data	
7.1.1 Is the process for distribution of technical manuals established and effective?	
7.1.2 Are approved technical/user/operator/maintenance manuals available to support the end item and peculiar support equipment and in the quantities required?	
7.1.3 Is there an approved Calibration Requirements List to support the end item and all peculiar installed instrumentation (if calibration is performed)?	
7.1.4 Are technical manuals/IETMs effective and do they include notes, aids, warnings or cautions, and procedures to minimize environmental or safety risks and personnel exposure to hazards during maintenance activities?	
7.1.5 Does the software documentation include version changes?	
7.1.6 Is the process for distributing corrections and revisions of the software effective or is the user experiencing any issues with distribution of software?	
7.1.7 Are there any Web access restrictions that prohibit access to online manuals or other necessary operational or maintenance documents?	
7.1.8 Are reusable shipping and storage container technical repair manuals available for use?	
7.1.9 Are maintenance manuals, IETMs and technical instructions updated and published in a timely manner to support maintenance and repair actions and are representative users involved in the update/revision process?	
7.1.10 Is there a change process available for reporting and	

USER TEAM ASSESSMENT CRITERIA	Response
updating manuals and IETMs, and are users included in the update process?	
7.1.11 Are there any issues with receiving technical manuals and IETMs at deployed sites?	
7.1.12 Are an adequate amount of IETM/electronic manual readers available to support required tasks and are readers accessible in the immediate areas where work is performed?	
7.1.13 Do maintenance/operator manuals, technical instructions effectively and accurately describe required maintenance and supply activities or procedures?	
7.1.14 Do maintenance manuals identify the correct revision and/or configuration of the part or system being worked on?	
8.1 Support Equipment and Test Equipment (SE&TE)	
8.1.1 Are there any environmental or physical constraint issues (e.g., size, weight, power, temperatures and interfaces) between the Support Equipment and Test Equipment (SE&TE) and hosting platform?	
8.1.2 Are there adequate types and quantities of SE&TE for each location to support fielded systems?	
8.1.3 Is the SE&TE supportable? • Is there adequate support documentation for the SE&TE? • Are spares available for corrective maintenance of SE&TE (or is there a pool of SE&TE that is adequate to meet demand? • Is training adequate/available, if needed to use and support SE&TE? • Is there a system in place to calibrate SE&TE and is it adequate?	
8.1.4 Have Test Program Sets (TPSs) and associated documentation been evaluated and verified?	
8.1.5 Are calibration standards and procedures, SE&TE, TPS and tools available at required maintenance sites and training schools?	
8.1.6 Does the COSAL/Navy Tactical Command Support System database, Ships Portable Electrical/ SPETERL/Tech manual identify the correct/adequate amount of SE&TE?	
8.1.7 Has SE&TE been identified in the AVCAL, COSAL, PUK, etc., as appropriate?	
9.1 Training and Training Support/Manpower Personnel and Training Plan	
9.1.1 Are local training resources: facilities, equipment, trainers, and units dedicated to system training support established commensurate with approved Training System Plan/MPTP and deemed adequate to meet training requirements to include throughput?	
9.1.2 Was operations and maintenance instruction provided to support new equipment introduction, changes to initial accessions/military occupational specialty training, and follow-on training adequate and commensurate with the approved Training System Plan/MPTP? Examples include: • New equipment training	

USER TEAM ASSESSMENT CRITERIA	Response
• Instructor and key personnel training • Formal school and on the job training • On-line, distributed learning • Follow-on, delta training to address configuration changes • YouTube Training, virtual training, quick reference guides, etc.	
9.1.3 Are established formal user, operator, and maintainer courses and unit sustainment training programs adequate and is training conducted on the fielded configuration(s)? This includes pre-faulted modules or software to simulate faults for diagnostics training?	
9.1.4 Are program manager or formal learning center approved new equipment training products, course curriculum (instructor guides, student guides, media), job performance aids, checklists, accessible and adequate to support individual, team, unit refresher training?	
9.1.5 Are training aids, devices, simulation and simulators planned for school house and unit training in place? • Have unit training and support personnel acquired and maintained proficiency in the use and maintenance of the training system? • Are approved training system technical/user/operator/maintenance manuals current and available to enable operations and maintenance? • Are fielded training aids, devices, simulation and simulators and devices current with fielded configurations?	
9.1.6 Has ownership, authority and responsibility for the life-cycle maintenance of fielded training aids, devices, simulation and simulators been established and logistics and maintenance support implemented, funded, and under contract? • Has the training system(s) been added to the appropriate Service accountable property system of record	
9.1.7 Does a feedback loop exist that allows operating forces to inform the training command and program manager of training shortfalls or changes needed as a result of experiences obtained in an operating environment?	
10.1 Manpower and Personnel	
10.1.1 Have changes (increases and/or decreases) in applicable manpower and personnel requirements had a negative or detrimental effect on operations, maintenance, and/or support of the system? Have the impacts to system performance and maintenance been identified and not addressed since the onset of the change?	
10.1.2 Are manpower (structure and number of personnel) requirements for operations, maintenance, and support adequate under operational conditions?	
10.1.3 Have personnel knowledge, skills, abilities, and qualification requirements to affect operations, maintenance, and support proven to be adequate under operational conditions?	

USER TEAM ASSESSMENT CRITERIA	Response
11.1 Facilities and Infrastructure	
11.1.1 Are facilities adequate to support/maintain the system? This includes: • Berthing space for ships (including utilities, dredging, special deck structural requirements for crane loads, and fendering systems). • Parking aprons and hangar space for aircraft • Support facilities, supply warehouses, transit sheds, maintenance facilities, calibration laboratories, dry-dock capability, training facilities, and ordnance handling and storage (for both classrooms and trainers for operational training and maintenance training, including required product/technical data to ensure efficient/effective support of facilities) • Transient support requirements when the system requires some level of support for continental US and outside continental US activities that are not regular homeports/support sites	
11.1.2 Has project documentation been submitted for funding facilities upgrades, new buildings, etc. in the appropriate FY as well as any environmental impact reviews?	
11.1.3 Are systems integration facilities able to handle work throughput (e.g., integration of electronic warfare systems and communication gear, etc. on ground vehicles)?	
11.1.4 Are there any issues with throughput capability for maintenance?	
12.1 Computer Resources and Software Support	
12.1.1 Are software patches timely?	
12.1.2 Is there sufficient training for software updates?	
12.1.3 Does the help desk provide adequate and timely support?	

Acquisition Team Assessment Criteria

The following tables provide assessment criteria for the ILA team members who are reviewing processes and metrics that the program office should be implementing. This effort typically involves referencing requirements documentation such as the CPD and System Specification, as well as program documentation and metrics data bases such as the reliability plans, reliability growth curves, and spares consumption rates to determine how effective the product support processes are implemented. These criteria can be tailored to address platform and system unique requirements. Additionally, these criteria, along with the results of the user assessment provide the input to the 2017 NDAA Section 849 reporting requirement for ACAT I programs.

ACQUISITION TEAM ASSESSMENT CRITERIA	
1.2 Product Support Management	
1.2.1 A methodology has been established to collect product support performance metrics. These metrics are defined and are measureable and repeatable. Metrics: • Are linked to system KPPs • Address system reliability and incentivize use of common DoD components • Motivate desired long term behavior • Are understood and accepted by all stakeholders • Are assessable and verifiable by system stakeholders	
1.2.2 Program requirements documents (e.g., CPD), System Specification, Reliability Plan) quantify a threshold/objective range for each support and sustainment related performance parameter, with measurement metrics for each. Actual sustainment metrics meet the metrics in the requirements documents. For example, Reliability, Maintainability, FD/FI performance, Time To Repair and Down time as reported by the fleet/field and tracked by the PM reflects the actual Sustainment metrics identified in the requirements documents.	
1.2.3 Fielding plans are being implemented per schedule including incorporation of the first install(s) at the schoolhouse(s).	
1.2.4 The performance threshold values are being met, or there is a viable plan in place to ensure they are met.	
1.2.5 The RAM-C Report and associated growth curves track to the actual reliability.	
1.2.6 Findings identified during previous sustainment assessments, such as ILAs, in-service reviews, failure reports, or testing that impact sustainment have been corrected or an acceptable plan is in place to mitigate the finding.	
1.2.7 Interim support planning for all final IPS is in place, including exit criteria for attainment of Navy Material Support Date or rationale for any lifetime interim support strategy (if applicable).	
1.2.8 Transition plans identify requirements for transitioning support of a system from an interim support provider to the gaining activity.	
1.2.9 System level performance metrics have been established and are being tracked/met for the PBA between the user and the program manager, which directly support KPPs.	

ACQUISITION TEAM ASSESSMENT CRITERIA	
1.2 Product Support Management	
1.2.10 Work agreement/contract SOW includes required metrics, which will be tailored to the unique circumstances of the PBL arrangements, for evaluating required performance results in support of CDD/CPD and PBA performance parameters. Metrics support overall DoD PBLCS measures, A_o, Materiel Reliability (R_M), Logistics Footprint, Cost Per Unit Usage, and Logistics Response Time). Sufficient cost data shall be included to validate PBL BCAs with actual costs during in-service reviews.	
1.2.11. Exit criteria have been established in the performance based contracts to ensure the orderly and efficient transfer of performance responsibility back to the Government upon completion or termination of the PBL contracts. Contains provisions for the acquisition, transfer, or use of necessary technical data, support tooling, support and test equipment, calibration requirements and training required to reconstitute or recompete the support workload.	
1.2.12 A support performance data collection system is planned/in place and operating. Trends are monitored and fed back for appropriate corrective actions. A corrective action process is defined if performance does not meet performance/Warfighter Agreement thresholds.	
1.2.13 The contractual package clearly identifies the functions, responsibilities, and authorities of field service representatives, if used. The contract or field activity is adequately funded.	
1.2.14 Requirements for the configuration identification, control, status accounting, configuration baseline, Configuration Control Board processes and membership (to include logistics participation), deviations, engineering changes and verification/audit functions are established for hardware, software and product/technical data. These are reflected in an approved CMP.	
1.2.15 The status of configuration change activity and approvals, and the version descriptions for software configuration items under development and installed in hosting locations are tracked within the configuration status accounting function within the program's CM processes per the CMP.	
1.2.16 The CSA information is maintained in a CM database that includes such information as the as-designed, as-built, as-delivered or as-modified configuration of the product. It also should include any replaceable components within the product along with the associated product/technical data.	
1.2.17 An effective process is in place for processing ECPs and deviations. ECPs and deviations are tracked and managed per the program's configuration management plan and process. The ECP process includes considerations and costs for changes in logistics support products resulting from the proposed ECPs.	

ACQUISTION TEAM ASSESSMENT CRITERIA	
2.2 Design Interface	
Note: Criteria in this section (supplemented by the Criteria under Product Support Management) provide an assessment of the 2017 NDAA Section 849 number (3) Conduct a "comparison between the assumed and achieved system reliabilities."	
2.2.1 FD/FI metrics are collected to validate FD/FI effectiveness and performance against requirements.	
2.2.2 FD/FI and diagnostics are meeting performance requirements (e.g., false alarm rates, percent fault isolation, etc.).	
2.2.3 RAM-Cost (RAM-C) Rationale Report provides a quantitative basis for reliability requirements and improved cost estimates.	
2.2.4 Field data is collected from systems in production and fielded units to verify if RAM requirements and KPPs are being met.	
2.2.5 A process has been implemented to assess achieved Reliability and RAM performance through analysis of factory, fleet, and user data.	
2.2.6 Reliability growth program indicates that system and subsystem reliability is appropriate to meet the stated requirement. A reliability growth plan has been implemented as appropriate.	

3.2 Sustaining Engineering	
ASSESSMENT CRITERIA	
3.2.1 Failures are trended to defined criteria.	
3.2.2 A FRACAS system is in place and criteria for conducting the FRACAS process on failures is defined.	
3.2.3 FD/FI indications and false alarms are analyzed and included in the FRACAS process.	
3.2.3 A FRACAS review is performed on engineering development models, pre-production units, production and deployed units.	
3.2.4 Safety/mishap reports associated with material and design deficiencies are linked with or provide input into the FRACAS.	
3.2.5 A formal DMSMS program and management plan has been established and documented consistent with DON policy and guidance (ref. SNI 5000.2, ASN (RD&A) memo of 27 Jan 05, "DMSMS Management Guidance," and ASN(RD&A) DMSMS Management Plan Guidance, dated July 2016).	
3.2.6 The DMSMS Management Plan and program addresses the elements identified in the DON DMSMS Management Streamlining Guidance dated July 2016. These are: • DMSMS Analysis • DMSMS Risk Management • DMSMS Management Team • Funding • Contract Requirements	

3.2 Sustaining Engineering	
ASSESSMENT CRITERIA	
• Metrics	
3.2.7 If technology refresh is a program strategy for managing DMSMS, the program is funded. A formal technology roadmap and approved refresh plan have been developed. A formal Technology Refresh (Roadmap) Plan should be documented.	
3.2.8 The program has defined DMSMS metrics and tracks DMSMS cases, trends and associated solutions and costs.	
3.2.9 Identified DMSMS risks (e.g., end-of-life issues) have been mitigated or the solution and funding to mitigate the risk has been identified. There are no unresolved DMSMS cases or unresolved end of life issues.	

4.2 Supply Support	
ASSESSMENT CRITERIA	
ILA Acquisition Team Assessment Criteria	
Note: Criteria in this section (supplemented by the criteria in sustaining engineering) provide an assessment of the 2017 NDAA Section 849 number (5) to Conduct "an evaluation of the cost of consumables and depot-level repairables."	
4.2.1 Supply chain metrics and management processes for tracking and assessing performance (turnaround times, repair times, delivery times) are implemented.	
4.2.2 The sparing levels are established and are adequate to meet demand based on usage data.	
4.2.3 Allowances are established and a process is in place for adjusting spares quantities based on consumption rates.	
4.2.4 The supply support provider has the capability to accept demand requisitions and provide status reports by electronic data interchange.	
4.2.5 Interim supply support requirements are in place and effective, if applicable.	
4.2.6 If Government support will not be available, planning for contractor teams supporting fielded units is in place.	
4.2.7 A counterfeit prevention program has been implemented to the requirements of SECNAVINST 4855.20	
4.2.8 If additive manufacturing (AM) is used as part of the support strategy, a process plan is in place that governs type of spares that that are authorized for AM, quality requirements, etc.	

5.2 Maintenance Planning and Management	
ASSESSMENT CRITERIA	
Note: Criteria in this section (supplemented by the Criteria under Product Support Management) provide an assessment of the 2017 NDAA Section 849 number (4) to Conduct "an analysis of the most cost-effective source of repairs and maintenance."	
5.2.1 Depots are established and fully supporting the system.	
5.2.2 System anomalies and intermittent failures are analyzed for possible changes to the FD/FI design, thresholds/tolerances and/or filtering.	
5.2.3 Specific maintenance tasks, including battlefield damage repair procedures, to be performed on the materiel system are documented in maintenance planning documentation.	
5.2.4 Maintenance planning documentation identifies: • Tools and test equipment by task function and maintenance level • Category codes (e.g., SMR codes) (ref. OPNAVINST 4410.2A/MCO 4400.120A) • Manufacturer's part numbers, nomenclatures, descriptions, estimated prices and recommended SE&TE quantities	
5.2.5 Final preventive maintenance system products have been certified, are resident in the authoritative database, and have been delivered to the users.	
5.2.6 The depot is capable to accept the planned for workload or is functioning at the planned for capability.	
5.2.7 If a commercial depot is used, the contract is awarded.	
5.2.8 The depot manager has certified the depot is ready to support the system. If not certified, the certification date and criteria have been identified, and it has been verified that the date is valid to support the system.	
5.2.9 Required organic depot personnel have been trained and all required equipment and tools are in place to perform depot maintenance.	
5.2.10 The planning efforts have a requirement for depot capability establishment at IOC plus four years. Per 10 USC 2464, depot level repair processes identified as CORE must have a core capability that is Government-owned and Government-operated (including Government personnel and Government-owned and Government-operated equipment and facilities not later than four years after achieving IOC).	
5.2.11 The program office is conducting periodic analysis of the repair and maintenance capability to ensure it is the most cost effective solution.	

6.2 Packaging, Handling, Storage and Transportation (PHS&T)	
6.2.1 Time delivery requirements for all shipments of spares to the Navy/USMC have been identified.	
6.2.2 PHS&T issues that were identified by the operational forces/fleet are addressed in a timely manner.	

7.2 Technical Data	
ASSESSMENT CRITERIA	
7.2.1 The technical data rights procured by the program are adequate to support the program's sustainment strategy, and provide a sufficient level of detail for procurement of spares, re-procurement, upgrade, and maintenance as appropriate.	
7.2.2 A product/technical data management plan, that includes change control processes, in-process review/validation/verification schedules as appropriate, has been developed (ref. DoD 5010.12-M).	
7.2.3 Computer Aided Design, modeling, and engineering product source data is acquired in acceptable digital according to the Integrated Digital Data Environment CONOPS.	
7.2.4 Contracts identify and require delivery of the technical data requirements as identified by analysis, as appropriate.	
7.2.5 The contents of the product/technical manuals have been validated/verified, considering the following: • Phased development schedule is in parallel with the system development, including validation/verification and transition to the Navy/USMC • Contents are validated on production configured system or equipment by fleet personnel • Hardware or part number changes • COTS manuals have been evaluated using MIL-PRF-32216	

9.2 Training and Training Support	
ASSESSMENT CRITERIA	
9.2.1 Instruction provides training commensurate with the TSP. Examples include: • Formal schools, on-the-job-training and follow-on training • System operation, maintenance levels, and calibration requirements (e.g., daily, weekly, monthly, quarterly, and on condition) • Individual and team training • Instructor training • YouTube, virtual training, quick reference guides, etc.	
9.2.2 The effectiveness of training, using measures such as MTTR, is measured and corrective action implemented when required.	
9.2.3 Initial Fleet training for Operational Evaluation and Service Introduction is in place.	
9.2.4 If applicable, Inter-Service training agreements have been established or updated.	

10.2 Manpower and Personnel	
ASSESSMENT CRITERIA	
Note: Criteria in this section (supplemented by the Criteria under Training and Training Support) provide an assessment of the 2017 NDAA Section 849 number (8) to conduct "as applicable, a comparison of actual manpower requirements to previous estimates."	
10.2.1 Information contained in the Human Systems Integration (HSI) plan reflects actual user interfaces, training, and system commonality.	
10.2.2 A Manpower Estimate for operation and maintenance of the program has been developed and approved by the manpower authority for all programs.	
10.2.3 Manpower and personnel requirements have been identified for both organic and contractor support including: • Knowledge, skills, and abilities • Maintenance, calibration, operator and support provider labor hours by rate or skill area/level by year • Number of personnel by rate, maintenance level and year • Operator, maintainer and support provider organizational level assignments defined • Inherently government tasks • Peacetime and Wartime	

11.2 Facilities and Infrastructure	
ASSESSMENT CRITERIA	
11.2.1 Requirements Identification and Validation -The facilities and infrastructure support requirements are documented in a facilities planning document such as the NAVFAC Program's Facilities Planning Criteria (FPC) document, Platform Basic Facilities Requirements (PBFR) document, and Facilities Management Plan (FMP).	
11.2.2 All host tenant agreements are in place.	
11.2.3All building modifications and/or MILCON projects have been adequately completed or are on schedule for completion by need date.	

12.2 Computer Resources and Software Support	
ASSESSMENT CRITERIA	
Note: Criteria in this section (supplemented by the Criteria under Product Support Management) provide an assessment of the 2017 NDAA Section 849 number (6) to conduct "an evaluation of the costs of information technology, networks, computer hardware, and software maintenance and upgrades."	
12.2.1 A computer and software security plan, including safety, has been developed and implemented. Program is following DoD Information Assurance and Certification and Accreditation Process (DIACAP) and developed a System Security Authorization Agreement. Systems comply with DON Public Key Infrastructure Policy.	
12.2.2 A Program Protection Plan has been developed in accordance with DoD Instruction 5200.39, "Critical Program Information (CPI) Protection Within the Department of Defense," which includes Anti-Tamper requirements and the USD(AT&L) Memo "Document Streamlining - Program Protection Plan (PPP). Assessor Note: The Anti-Tamper Plan is an Annex to the Program Protection Plan (ref. DoD I5000.02).	
12.2.3 The SSA has been established.	
12.2.4 A process is in place to manage (create/discard/track/close) software trouble reports that will be levied against the software product.	
12.2.5 A process has been established for distributing corrections and revisions of the software to the users.	
12.2.6 There are plans for processor upgrades so that tech refresh may be accomplished with minimal software modifications.	
12.2.7 A process to proactively project vendor discontinuance of software support, software revisions and upgrades has been developed and documented to ensure both program software and software support tools can be sustained and software refreshes can be adequately planned.	
12.2.8 A software configuration control plan has been developed and is implemented.	
12.2.9 A proactive process is in place for de-support of software to include system and third party software to effectively: • Forecast software sustainment issues and identify time periods for software availability and support • Capture cost trade-off criteria for full or partial software updates • Identify upgrade schedules to reduce transition costs associated with updates • Identify accurate budget estimates • Provide a process that can be used to help manage and optimize the efficiency and effectiveness of software tech refreshment	
12.2.10 Data and resources agreements, such as a MOA between the gaining system activity and the transferring system activity are approved and detail the actions required by each activity.	
12.2.11 Agreements, such as a MOA between the program management office and gaining commands are current.	

12.2 Computer Resources and Software Support	
ASSESSMENT CRITERIA	
12.2.12 Help desk response metrics are tracked and are meeting the metrics defined in the support agreement and requirements documents. Help desk metrics are factored into the reliability of the system.	
12.2.13 Trouble calls/tickets to the help desk are processed through a FRACAS as input to the reliability program.	
12.2.14 Processes for the help desk are adequate for recompete with another provider.	
12.2.15 Help desk staffing and KSAs of personnel is adequate to support functions required by the help desk.	
12.2.16 The Disaster Recovery/Secondary Site is fully operational. Disaster Recovery reliability is factored into overall system reliability.	
12.2.17 Agreements are in place for the command/activity hosting the disaster recovery center.	
12.2.18 Help desk procedures have been established.	

13.2 Product Support Budgeting Funding	
ASSESSMENT CRITERIA	
Note: Criteria in this section provide an assessment of the 2017 NDAA Section 849 numbers (1, 2, 7 and 9) to conduct: • An independent cost estimate for the remainder of the life cycle of the program. • A comparison of actual costs to the amount of funds budgeted and appropriated in the previous five years, and if funding shortfalls exist, an explanation of the implications on equipment availability. • An analysis of whether accurate and complete data are being reported in the cost systems of the military department concerned, and if deficiencies exist, a plan to update the data and ensure accurate and complete data are submitted in the future.	
13.2.1 The program budget is funded to the requirements identified in the ownership cost estimates and as identified in the LRFS.	
13.2.2 A LRFS has been established and kept updated that identifies all appropriations (ref. SNI 5000.2): • The LRFS supports the budgetary requirements of the logistics support plan and requirements documentation and is appropriately phased • Rationales to support the funding amounts in the LRFS are documented • The correct appropriations are identified for each logistics requirement for each fiscal year. These are properly phased in advance of requirements to account for procurement lead time, especially for spares and materiel • Funding shortfalls and impacts are identified, prioritized, fully documented and addressed to the program manager and resource sponsor • LRFS numbers/dollars are traceable to appropriate budget exhibits	
13.2.3 Life-cycle cost estimates, including cost reduction efforts have been developed and validated optimizing TOCs across the life cycle.	
13.2.4 TOC analysis is being performed, including fielding and Operational and Support costs to date.	
13.2.5 Post-IOC cost estimates and the projection of the TOC objective versus SCP baseline are substantiated by assessed fielded systems performance, operations, and sustainment related expenditure to date.	
13.2.6 The assessor must conduct an analysis of whether accurate and complete data are being reported in the cost systems of the DON. If deficiencies exist, is there a plan to update the data and ensure accurate and complete data are submitted in the future.	
13.2.7 As applicable, the assessor must conduct an assessment of the actual fuel efficiencies compared to the projected fuel efficiencies as demonstrated in tests or operations.	

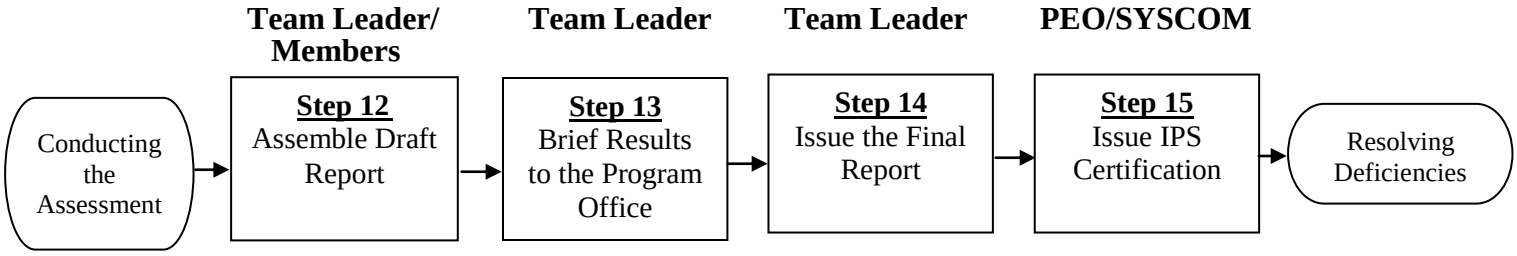
14.2 Environment, Safety and Occupational Health (ESOH)	
14.2.1 The program has implemented an effective: • System Safety program in accordance with MIL-STD-882 • Approach to identify, then eliminate or reduce ESOH hazards • Process for managing/mitigating ESOH risk/hazards where they cannot be avoided • Method for tracking hazards	
14.2.2 The program has a plan for end of life-cycle demilitarization and disposal including munitions disposition (ref. DoDI 5000.02, SNI 5000.2, DoD 4160.28-M, OPNAVINST 8026.2, OPNAVINST 4520.1).	
14.2.3 Control measures are implemented to minimize personal exposure to noise sources.	
14.2.4 A closed-loop hazard tracking system is implemented. Hazard analysis is performed during the design process to identify and categorize hazards, including hazardous materials and associated processes. Corrective action is taken to eliminate or control hazards, or to reduce hazard to an acceptable level.	
14.2.5 All systems containing energetic materials comply with insensitive munitions criteria.	
14.2.6 There is a plan for tracking, storing, handling and disposing of hazardous materials and hazardous waste consistent with Hazardous Material Control and Management and NAS 411 requirements (ref. OPNAVINST 5090.1, OPNAVINST 5100.23, OPNAVINST 5100.19 and NAS 411).	
14.2.7 Hazardous material findings and determinations are incorporated into the training program for all system-related personnel, as applicable, to include approval to use hexavalent chromium in the system, if required.	

PART IV – Compiling and Reporting the Results

Objective

Part IV addresses the preparation of the ILA report, coordination with the program office and submission of the report to the cognizant PEO or SYSCOM. The report will serve as the basis for the IPS certification decision by the PEO or SYSCOM.

4.1 Process



4.2 Process Description

Step 12 – Assemble Draft Report
It is the responsibility of the team leader to oversee development of the draft report. The following identifies the process for developing the report.

Draft the Report. The team leader and team members (in conjunction with the program office) must:

- Document all deficiencies and OFIs using the Appendix C format. Deficiencies should describe the ILA Team's recommended actions to resolve the finding, and include a Green, Yellow or Red Rating using the ILA rating criteria in Appendix B, Table B-1. For Post-FRP/FDD ILAs, use Appendix B, Table B-4
- Compile programmatic data for the introduction (program contacts, system description, purpose and scope of the assessment, support concept)
- Summarize the results of the ILA (review dates, list of assessors, and status of each Product Support element)
- Review the individual deficiencies and OFIs and rate the overall risk for each product support element in the report. The Risk Matrix (Figure B-1) and accompanying Consequence and Likelihood Decision Tables (Tables B-3a and B-3b) should be used as a tool in recommending the program logistics certification as delineated in SECNAVINST 4105.1. This format is consistent with overall program risk assessment tools currently used in the acquisition community for determining and briefing cost, schedule, and performance risk. Assessment Criteria areas without deficiencies need not be reflected in the risk matrix. Careful consideration of all outstanding deficiencies and their associated risk will be used to develop the overall IPS program certification recommendation to proceed or not proceed to the next acquisition milestone
- In general, if there are major deficiencies that cannot be corrected prior to the issuance of product support certification or the milestone decision, the rating should not be "Green." The team leader should brief the program manager prior to release of the final ILA Report on each finding and OFI as well as the team leader's OFI for logistics certification

- Draw conclusions regarding the program's IPS posture/risks in terms of its ability to:
    1. Meet established performance metrics
    2. Have achievable interim support plans
    3. Be fully supportable at system IOC
    4. Meet other support requirements and milestones

- Draw recommendations regarding the program's preparation to proceed into the next phase.

The report must reflect a clear distinction between issues requiring resolution prior to the milestone decision and issues that may be resolved after the milestone at specific timeframes (e.g. prior to contract award or release of the request for proposal, or prior to Fleet introduction or operational evaluation, etc.). As the report is being drafted, the program manager provides a formal POA&M to address each finding identified in the ILA report. POA&Ms should be submitted and included in the final report, if possible. If they are not finalized prior to issuance of the final report, they will be provided to the team leader at a mutually agreed to time. All proposed actions should address funding availability and support overall program milestones. The team leader, in consultation with respective team members, shall review and respond to the proposed POA&Ms, ensuring adequacy and appropriateness of the planned actions. The ILA Report Format is provided in Appendix C.

Step 13 – Brief Results to the Program Office.
The team leader provides the program manager, logistics manager and other key program office personnel the draft results of the assessment to ensure the content of the report is accurate and understood. The team leader discusses the following:

- Assessment overview
- Summary of each finding
- Rating for the program, including individual assessments and overall program rating
- Concurrence from the program office
- Any follow-up discussions on issues requiring action plans
- Coordination of the final report prior to formal issuance

Step 14 – Issue the Final Report.
The team leader incorporates any changes or corrections resulting from discussions with the program office during Step 13 and forwards the final report, to include the final risk matrix and assessment criteria color summary, to his signature authority as appropriate. The final report is forwarded by the team leader to the program manager and PEO/SYSCOM Commander. For ACAT I and II programs, a copy of the ILA report is sent to DASN(ELM), the appropriate Product DASN, and OPNAV (N4) for Navy / HQMC (I&L)(EGEM/LPC) for USMC. For joint programs, a courtesy copy of the ILA report should also be provided to other affected Service's PEO and/or Acquisition Executive in accordance with SECNAVINST 4105.1.

Step 15 – Issue IPS Certification.
Upon receipt of the final report, the cognizant PEO/SYSCOM Commander will review the report and certify the IPS program as Low Risk, Moderate Risk, or High Risk in accordance with SECNAVINST 4105.1. The PEO shall submit their ILA report and associated certification to the MDA and key DON Stakeholders no later than four weeks prior to the scheduled milestone or FRP/FD decision meetings. For ACAT ID programs, PEOs shall also copy the Deputy Assistant Secretary of Defense (Materiel Readiness) (DASD(MR)) in accordance with SECNAVINST 4105.1. Certifications are not required for Post-FRP/FDD ILAs per SECNAVINST 4105.1 and paragraph 3.3 of this document.

4.3 Process Deliverables

- ILA Report, including POA&M
- IPS Certification Letter

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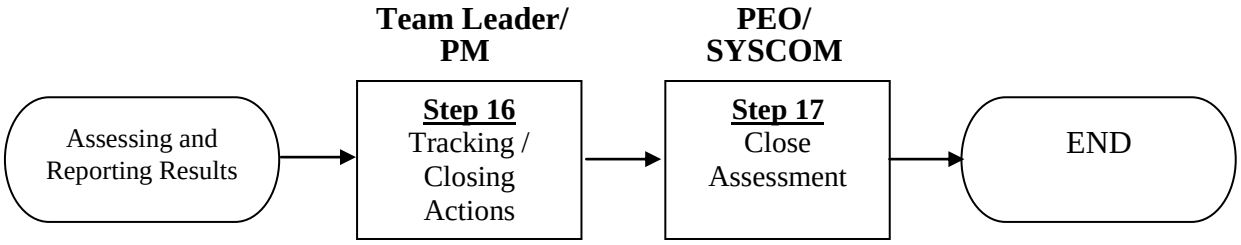
PART V - Resolving Deficiencies

Objective

The objective of Part V is to ensure the deficiencies identified in the assessment report are adequately resolved. This is one of the most important tasks in the entire ILA process. If deficiencies in planning, funding, or execution are only documented and not resolved, the end user will not receive necessary IPS products. To ensure deficiencies are adequately resolved, the ILA team leader must remain engaged with the program office until completion of each finding can be independently verified.

5.1 Process



5.2 Process Description

Step 16 – Tracking/Closing Actions
The responsibility for implementing and completing corrective actions remains with the program office, and where applicable, with the external agencies or organizations responsible for logistics support elements not under direct control of the program manager. Written status of the actions in the POA&M must be provided to the ILA team leader. The periodicity of these status reports will be as agreed to between the program office and the team leader. The final responsibility for closing ILA deficiencies remains with the team leader, who should consult with the originator of a finding prior to closing it. Corrective action status will be reported and assessed at Gate reviews that fall in between ILAs.

Step 17 – Close Assessment
The ILA team leader must remain engaged with the program manager to ensure all POA&M actions are completed. Once all deficiencies have been satisfactorily resolved, as agreed to by the team leader, the ILA may be closed. The team leader provides the program office with correspondence identifying that the program has closed all issues and provides recommendation that the certification can be changed to Green. The PEO or SYSCOM commander does not have to re-issue a certification but can status the ILA as closed in future product support briefs or Gate reviews. This process should be documented in the PEO/SYSCOM implementing procedure.

4.3 Process Deliverables

- Status reports
- Team leader responses/guidance to status reports
- Final IPS Certification (if appropriate)

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Appendix A -
Documentation Request List

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Objective

The objective of this Appendix is to provide a baseline documentation request list as described in Part II of this handbook.

A.1 Process

Table A-1, Documentation Request List, below, provides a mix of statutory, regulatory and discretionary documents that contain information related to product support. Table A-2 provides a list of documents that should be reviewed during sustainment ILAs in addition to those identified in Table A-1, as applicable. These tables provide the ILA team lead and program office representative a list of documents that are typically reviewed during an ILA. While a program office must provide statutory and regulatory documents, the discretionary documents may or may not exist as titled below. For example, the required information may be a standalone plan or be included as a subset or chapter of another document. Using DMSMS as an example, a program office may not have a standalone DMSMS Program Management Plan, but the detailed process for managing DMSMS is included as a section in another program document. Likewise, there may not be a Failure Reporting, Analysis and Corrective Action System (FRACAS) plan; however, that information on FRACAS may be included as part of the reliability plan or other program planning document. DODI 5000.02 and SECNAVINST 5000.2 identify the statutory and regulatory documents and information required for programs at each milestone.

D= Draft/In process
F= Final
U= Update as required/necessary

Table A-1: Documentation Request List

Typical Document Request/Description	**Source**	**Milestone/Decision Point**		
		B	**C**	**FRP/ FDD**
Acquisition Plan (AP) Defines the specific actions planned by the program manager to execute the contracting approach established in the AS and to guide contractual implementation.	FAR 7.104 and 7.105, DFARS 207.1; SNI 5000.2	F	F	F
Acquisition Program Baseline (APB) Documents the agreement among resource and functional sponsors, program managers and the Milestone Decision Authority (MDA) on how the program is to be executed. The baseline contains only those program cost, schedule and performance parameters (both objectives and thresholds) that, if thresholds are not met, will require the MDA to reevaluate the program and consider alternative program concepts or design approaches.	10 USC 2435, DoD 5000.02; SNI 5000.2	F	F	F

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
Acquisition Strategy Describes the business and technical management approach to achieve program objectives within the resource constraints imposed. It provides the framework for planning, directing, contracting for and managing the program. It provides the basis for formulating functional plans and strategies (e.g., acquisition plan, Test and Evaluation Master Plan and the Systems Engineering Management Plan).	DoD 5000.02; SNI 5000.2	F	U	U
Analysis of Alternatives (AoA) Provides an analysis to aid decision makers by identifying risks, uncertainty and the relative advantages and disadvantages of alternatives being considered to satisfy a mission need. The AoA identifies the sensitivity of each alternative to possible change in key assumptions.	DoD 5000.02; SNI 5000.2	F	F	F
Business Case Analysis (BCA) for Performance Based Decisions and Support Decisions Evaluates alternative solutions for obtaining best value while achieving operational requirements balancing cost, schedule, performance and risk.	DoD 5000.02; SNI 5000.2, PBL Guidance Directives	F	U	U
Capability Documents (ICD/CDD/CPD): • **Initial Capability Document (ICD):** The ICD Guides the Concept Refinement and Technology Development phases of the acquisition process and supports the Milestone A decision. The ICD includes a description of the operational capability gap, threat, shortcomings of existing systems and (C4I) architectures, capabilities required for the system, program support, force structure, Doctrine, Organization, Training, Material,	CJCSINST 3170.01, DoDI 5000.02; SNI 5000.2	F		

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
Leadership and Education, Personnel and Facilities (DOTMLEPF) analysis and schedule/program affordability for the system. Replaces the mission needs statement.				
• **Capability Development Document (CDD):** The CDD includes the operational performance parameters necessary for the acquisition community to design a proposed system and establish a program baseline. The performance attributes stated include KPP, thresholds and objectives to guide the development and demonstration of the proposed increment. Equivalent to the operational requirements document. The CDD builds on the ICD and is approved prior to Milestone B.		F		
• **Capability Production Document (CPD):** The CPD narrows the generalized performance and cost parameters from the CDD into more precise performance estimates for the specific production system increment. The CPD is finalized after the design readiness review.			F	U
Configuration Management Plan (CMP) Defines the technical and administrative directions and surveillance actions to identify and document the functional, allocated and physical characteristics of a configuration item, to control changes and record and report change processing and implementation status.	DoDI 5000.02; SNI 5000.2	F	F	F
Contractual Documentation Contains the program contractual requirements. This may include the Request For Proposal (RFP), statement of work/objectives, specification, contract requirements deliverables, performance agreements and any other related	FAR/DFARS, DoD 5000.02; SNI 5000.2	F	U	U

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
contractual documentation that contains support criteria and requirements.				
Cost Analysis Requirements Description Describes the complete program and used as the basis for program office and Component cost analysis teams to prepare program life cycle cost estimates. It should be comprehensive enough to facilitate identification of any area or issue that could have a significant effect on life-cycle costs and therefore must be addressed in the cost analysis. It also must be flexible enough to accommodate the use of various estimation methodologies.	DoDI 5000.02; SNI 5000.2	F	U	U
CORE Analysis/Determination Identifies the Maintenance Requirements to determine if they are a CORE capability (e.g., capability the DoD wants to retain organically).	DoDI 5000.02; SNI 5000.2; USC Title 10, Sec 2464 /2466A	IP	F	U
Data Management Strategy Identifies long term needs and strategy for management and ownership of data rights for re-procurement of the system.	DoDI 5000.02; SNI 5000.2, USC Title 10, Sec 2320	F	U	U
Depot Source of Repair Provides estimates of requirements for depot maintenance, repair and associated logistics capabilities	DoDI 5000.02; SNI 5000.2; USC Title 10, Sec 2464 /2466B	IP	F	U
Development Test(DT)/Operational Test (OT) Results Provides results from developmental and operational testing on a system.	DoD 5000.02; SNI 5000.2		D	F
Design Reference Mission Profile (DRMP)/Operational Mode Summary/Mission Profile (OMS/MP) Provides a time history or profile of events, functions (often referred to as use or operations) and environmental conditions that a system is expected to encounter during its life cycle, from manufacturing to removal from service use. The OMS/MP is the USMC equivalent to the DRMP	DoD 4245.7-M Templates Services Directives, NAVSO P-6071, OPNAVINST 3000.12A, Tech brief ABM 1002-03 DRMP Development guidelines	F	U	U

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
Diminishing Manufacturing Sources and Material Shortages (DMSMS) Management Plan Identifies the program approach to managing DMSMS. DMSMS addresses identifying, defining, and establishing activities and functions to enhance the efficiency and cost-effectiveness of obsolescence mitigation.	SECNAVINST 5000.02/ ASN(RDA) DMSMS Management Plan Guidance, July 2016	F	U	U
Facilities Documents and Planning Processes The following provides the facilities planning documentation that is needed for successful planning for facilities: • Facilities Planning Criteria (FPC): The FPC contains the critical data/information required to perform facility planning for identification of the necessary facility infrastructure to effectively support the platform. This starts the facilities and infrastructure planning process. • Platform Basic Facilities Requirements (PBFR): The PBFR is a NAVFAC IPS document that provides/identifies the minimum requirements to be satisfied by the Navy's total shore establishment in direct support of that particular platform, regardless of location. • Facilities Management Plan (FMP): The FMP identifies shore facilities and infrastructure to support the platform deployment at potential homeports/basing sites. It includes site-specific analysis and provides an authoritative and collaborative facilities execution strategy used by NAVFAC IPS and base planners as a project execution guide and by OPNAV staff as a budgeting guide. The FMP also supports the Fleet's	NAVFAC/ SYSCOM/PEO	IP	F	U

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
basing decision-making process by serving as a key reference to the requisite base National Environmental Policy Act (NEPA) documentation • As potential shore infrastructure investments are being evaluated, coordination is done with installation Public Works Department (PWD), Facilities Management Division (FMD), Environmental (EV) Branch, and Asset Management (AM) Branch planners, the appropriate regional command, Assistant Regional Engineer (ARE) and end users. This should start a collaborative process and analysis of all known ashore requirements for that installation against existing assets and planning. The Shore Facility Planning System (SFPS) is the, installation level, process that analyzes: the facilities required, existing facilities and their physical condition and configuration, existing facility uses and how to achieve efficient utilization. SFPS is also the tool that is used to develop site specific solutions necessary to successfully acquire, maintain, optimally utilize and dispose of shore assets. It is through the SFPS and not the Electronic Project Generator (EPG) that a project is vetted and validated. Projects not validated in SFPS early on often have scope and cost issues that are then not discovered until review by the Shore Mission Integration Group (SMIG) - Working Group (WG) as they annually evaluate all Navy MILCON requirements. Questions at that time as to whether a project's requirement				

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
and scope are valid can have adverse impacts to a project in terms of schedule and cost • Facility Impact Report (USMC): Identifies the facility requirements needed to support the system and is provided to the potential gaining commands for evaluation and response • Facilities Assessment Report (USMC): Provides an assessment of facilities available and their capability to support the system to be fielded				
Failure Reporting, Analysis and Corrective Action System (FRACAS) A closed-loop system for the identification of hardware/software failures/discrepancies, their analyses to root cause, implementation of corrective actions to prevent recurrence and verification of their effectiveness. Recording of data should be comprehensive to provide an accurate database for analyses.	SYSCOM/PEO Directives, AKSS	D	F	F
Human Systems Integration (HSI) Plan Describes how the system will meet the needs of the human operators, maintainers, and support personnel. This includes Manpower, Personnel, Training and Education (MPT&E), Human Factors Engineering (HFE), personnel survivability, and habitability. Also describes how the program will meet HSI programmatic requirements and standards including analysis to reduce manpower, improve human performance, and minimize personnel risk. HSI is the integrated analysis, design, and assessment over the life-cycle of a system and associated support infrastructure in the domains of MPT&E, HFE, personnel survivability, habitability, safety, and occupational health.	DoD 5000.02; SNI 5000.2: Services Directives	F	U	U
Information Support Plan Identifies needs, dependencies and	DoDI 4630.8, DoDD 4630.5,	F	U	U

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
interfaces focusing on interoperability, supportability, and sufficiency concerns throughout a program's life cycle. It provides a plan for all ACAT programs, including both information technology and national security systems that connect to the communications and information infrastructure.	CJCSI 6212.01, DoDI 5000.2; SNI 5000.2			
Integrated Master/Management Plan Depicts the overall structure of the program and the key processes, activities and milestones in an event-based plan. It defines the accomplishments and criteria for each event in the plan.	DoD 5000.02; SNI 5000.2, MIL-HDBK-881, IPPD best practice, DAG Services Directives	F	U	U
Item Unique Identification (IUID) Plan Annex to the Systems Engineering Plan (SEP), describes the plan for physical marking and encoding of the two-dimensional data matrix symbols that are applied to items to facilitate electronic data capture and transmission. Data elements are then used to track parts throughout their life cycle.	DoDI 5000.2; SNI 5000.2; USD (AT&L) Memo 23 Dec 04, SYSCOM/PEO Directives	F	U	U
Life-Cycle Cost Estimate (LCCE) Provides an estimate of the total cost to the Government of acquisition and ownership of a weapon system over its useful life. It includes the cost of development, acquisition, support and, where applicable, disposal.	DoD 5000.02; SNI 5000.2; SYSCOM/PEO Directives	F	U	U
Life Cycle Sustainment Plan (LCSP) Describes the overall supportability program and includes all requirements, tasks, schedules and milestones for each ILA element integrated into the overall program milestones during acquisition and sustainment.	DoDI 5000.02; SNI 5000.2, USD(AT&L) LCSP Outline Version 2.0, dtd 19 Jan 2017 / ASN(RDA) Memo, Same Subject, dtd 23 Feb 2017	F	U	U
Logistics Requirements Funding Summary Logistics Funding Requirements document identifies the logistics support functions and sub-functions required to	SNI 5000.2, SYSCOM/PEO Directives	F	U	U

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
establish affordable and effective logistical support. It identifies support resource requirements and the funds available to meet those requirements. The summary displays requirements versus available funding for all Integrated Product Support Elements and related disciplines, by fiscal year and appropriation, and is traceable to logistic support plan tasks and activities.				
Level Of Repair Analyses (LORA) Provides an analysis to determine whether an item should be repaired or discarded and, if repaired, at what maintenance level. Analyses are performed and trade-off decisions are made based on mission requirements as well as economic and non-economic considerations.	SYSCOM/PEO Directives, DAG		F	U
Manufacturing Plan Defines and integrates a sequence of activities to establish, implement and control production resources for efficient transition from development to production and continued manufacturing. The plan addresses all aspects of manufacturing/product engineering, manufacturing methods, production and material control, scheduling and manufacturing cycle times, personnel, tooling, defect prevention, etc.	SYSCOM/PEO Directives, DAG, DFARS 207.1		F	U
Maintenance Concept The concept provides a brief description of the concept for operational maintenance, constraints and plans for support of items under development.	SYSCOM/PEO Directives	F		
Maintenance Plan Provides a description of the concept for operational maintenance, constraints and plans for support of items under development. Information in the plan is based on different supportability analyses, the LORA, maintenance analyses, etc.	SYSCOM/PEO Directives, Acquisition Knowledge Sharing System (AKSS)		F	F
Memoranda of Agreement(s) and Field Tasking Agreements	DoDI 4000.19	F	F	F

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
Delineates the roles and responsibilities, as well as agreements between the program office and supporting field activities, In-Service Engineering Agents, agreements between the Software Support Activity (SSA), inter-service agreements etc. Field tasking agreements include funding documents that contain statements of work.				
Operational Test Agency Report of Operational and Test Evaluation Results Provides operational test results from the Services testing agencies.	DoDI 5000.02; SNI 5000.2	D	F	F
Preferred Parts Selection List/Approved Parts List A list of parts or part types that meets the system design requirements over its life cycle and are either recommended or approved for use.	SYSCOM/PEO Directives, DFARS 207.1		F	U
Programmatic Environment, Safety, and Health Evaluation (PESHE) This document is a management tool used to help program managers identify, manage, and communicate Environment, Safety and Occupational Health (ESOH) hazards and risks, and determine how best to comply with applicable ESOH regulatory requirements and standards. It contains a compliance schedule of activities that may require National Environmental Policy Act (NEPA)/EO 12114) documentation. It is a living document that is continually updated and maintained throughout the progression of a program or project, from concept to disposal.	42 USC 4321, DoD 5000.02; SNI 5000.2	F	U	U
Program Protection Plan (Includes the Anti-Tamper plan as an Annex) Prepared for programs with critical program information.	DoDI 5000.02; SNI 5000.2; DoDI 5200.39; USD(AT&L) Streamlining Memo dtd 18 July 2011	F	F	F
Quality Management	DoD 5000.02; SNI		F	U

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
Systems/Assurance Plan Provides the contractors plan for assuring the quality of the system. Typically follows the requirements of AS9100.	5000.2			
Reliability, Availability and Maintainability (RAM) Plans and Reports Provides plans to influence the design, and provides reports from the results of the completed analyses (e.g., Failure Modes, Effects and Criticality Analysis).	DoD 5000.02; SNI 5000.2; SYSCOM/PEO Directives	D	F	U
Replaced System Sustainment Plan Identifies how the system being replaced will be sustained.	DoD 5000.02; SNI 5000-2 Series	F	F	F
Results of Design Analyses Provides analyses as part of the design process to identify, quantify and qualify product characteristics in terms of attributes, tolerances and test and inspection requirements necessary to produce a quality product that meets its life cycle and supportability requirements. Examples of analyses include reliability, availability and maintainability predictions, task time analyses, testability analysis, worst case tolerance analysis, stress analysis, sneak circuit analysis and FMECA.	SYSCOM/PEO Directives, DFARS 207.1		F	F
Risk Management Plan/Assessment Describes the approach to identify, assess, mitigate and continuously track, control and document program risks.	DoD 5000.02; SNI 5000.2	F	U	U
Software Plan Documents the procedures for identifying, organizing, controlling, and tracking the configuration of the software (i.e., selected software work products and their descriptions) and systematically controlling changes to the configuration, and maintaining the integrity and traceability of the configuration throughout the software life-cycle.	SYSCOM/PEO Directives, AKSS	F	U	U
Software Support/Sustainment Plan Describes the activities to ensure that implemented and fielded software continues to fully support the operational	SYSCOM/PEO Directives, DAG	F	U	U

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
mission of the software.				
Systems Engineering Plan (SEP) Describes the comprehensive, iterative technical management process that includes translating operational requirements into configured systems, integrating the technical inputs of the entire design team, managing interfaces, characterizing and managing technical risks, transitioning technology from the technology base into program specific efforts, and verifying that designs meet operational needs. It addresses life cycle activities using a concurrent approach to product and process development as well as sustainment.	DoDI 5000.02; SNI 5000; USD(ATL) SEP Streamlining Guide, dated	F	U	U
Systems Safety Analysis/Plan Provides the plans and analyses to achieve acceptable ESOH risk through a systematic approach of hazard analysis, risk assessment and risk management.	SYSCOM/PEO Directives	F	U	U
Test and Evaluation Master Plan (TEMP) Documents the overall structure and objectives of the test and evaluation program consistent with the ICD/CDD/CPD/AS. It identifies the Development Test and Evaluation (DT&E), Operational Test and Evaluation (OT&E), Live Fire Test and Evaluation (LFT&E) and Follow-On Test and Evaluation (FOT&E) activities and provides the framework to generate detailed T&E plans.	DoD 5000.02; SNI 5000.2	F	U	U
Training Analysis Provides a methodology to determine manpower, personnel, training and education requirements to support the planning and programming process and the Training Systems Plan.	OPNAVINST 1500.76	IP	F	U
Training Systems Plan (TSP)/Manpower, Personnel and Training Plan (MPTP) Identifies the resources required to establish and maintain an effective training program throughout the	OPNAVINST 1500.76 / MCO 5311.1	IP	F	U

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
acquisition life cycle. It controls planning for meeting the training requirements and identifies personnel required to install, operate, maintain, or to otherwise use the system. The MPTP is the USMC equivalent to the TSP				
Planned Maintenance System (PMS) Documentation Includes scheduled maintenance instructions provided on maintenance requirements cards and maintenance index pages. May be included in the interactive electronic technical manual.	SYSCOM/PEO Directives		F	U
Software Development Plan Describes responsibilities, tasks, deliverables and schedules. The descriptions include how the design, review and tests will be performed. The plan addresses management and control of the development process, software development practices or standards to be followed, and procedures to be used for tracking and reporting progress.	SYSCOM/PEO Directives, DAG		F	U
Software Security Plan Addresses various aspects of security such as information assurance, protection of critical program information, and obtaining security certification and accreditation if not included in other documents.	SYSCOM/PEO Directives		F	U
Supply Support Management Plan Identifies the major supply support events/deliveries/milestones for an acquisition or configuration change with projected and actual delivery dates for each event from budgeting through the material support date.	SYSCOM/PEO Directives, AKSS		F	U
Supportability Analysis Summaries (Maintenance Planning & Repair Analysis, Support & Test Equipment; Supply Support; MPT&E, Facilities, Packaging, Handling, Storage and Transportation (PHS&T), and Post	SYSCOM/PEO Directives, DAG		F	U

Typical Document Request/Description	Source	Milestone/Decision Point		
		B	C	FRP/ FDD
Production Support) Provides information for planning, assessing program status and decision making by the government relative to the logistics disciplines/elements.				
System Operating & Maintenance Documents Contains information and instructions for the installation, operation, maintenance, training and support of a system.	SYSCOM/PEO Directives		F	U

The following documents apply to systems that are conducting Post-IOC Phase (Post-FRP/FDD) ILAs. These are in addition to the documents identified in Table A-1 above but that documentation list should be tailored for each program by the ILA team lead and program office.

Table A-2: Sustainment ILA Documentation Request List

System Operational Verification Tests (SOVT) List of deficiencies upon system installation.	DON/SYSCOM/PEO Directives
Maintenance History, Supportability/Cost Drivers Component failures per installed population.	DON/SYSCOM/PEO Directives
Diagnostic Help History Tech assists per system.	DON/SYSCOM/PEO Directives
Configuration Management Information Configuration control and change history to include number of engineering design changes, etc.	DON/SYSCOM/PEO Directives
PBL Performance Information on how the PBL provider is performing against required metrics.	DON/SYSCOM/PEO Directives
Training Performance Training effectiveness/issues.	DON/SYSCOM/PEO Directives
Depot Performance Component repairs per installed population.	DON/SYSCOM/PEO Directives
Planned Maintenance System (PMS) Performance User feedback on PMS program.	DON/SYSCOM/PEO Directives
Product Data Performance User feedback on Technical Data.	DON/SYSCOM/PEO Directives

Appendix B -
ILA Certification Criteria and Rating Criteria

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Objective

The objective of this Appendix is to provide rating criteria for individual issues and rating and certification criteria for the overall program. It is broken into two parts: Part I provides Independent Logistics Assessment (ILA) rating and certification criteria in support of Milestones B, C and the Full Rate Production (FRP) decision/Full Deployment Decision (FDD). Part II provides rating criteria for Post-FRP/FDD ILAs.

Section I – Acquisition Phase ILA Rating Criteria

B.1 Process

The following tables provide guidance for rating individual elements and for rolling those individual ratings into an overall program rating.

- **Finding/IPS Element Rating Criteria (Table B-1)**: Used to rate individual issues and each element.
- **Overall Program Assessment and Certification Criteria (Table B-2)**: Used to provide the overall program rating as well as certification for the program. The overall program rating typically would match the program certification; however, these can differ if the Certification Authority identifies urgency factors or non-concurs with the ILA team's recommendations.
- **ILA Risk Matrix (Figure B-1)**: Used to graphically represent the program's overall logistics risk in accordance with the overall rating. The matrix provides a presentation media that is used to present other programmatic risks to the Deputy Assistant Secretary of Defense (Materiel Readiness) (DASD(MR)) such as performance, cost, and schedule risks. This allows logistics risk to be presented at the same level during briefs to the MDA. The ILA Consequence Decision Table (figure B-3a) and Likelihood Decision Table (figure B-3b) are used in tandem to provide an overall rollup of findings onto the risk cube.

Table B-1: Finding/IPS Element Rating Criteria

Grade	Cost	Schedule	Performance
Low (Green)	Minor or no impact to supportability	Minor or no impact to supportability	Minor or no impact to supportability
Moderate (Yellow/Amber)	Some supportability impact; re-allocatable within program Funding is not available when needed, moderate impact to supportability	Some impact to logistics tasks; internally adjustable with no milestone changes Delays in logistics tasks impacting ability to meet milestones, but workarounds exist such that impact is minimal	Some impact to readiness, but can be remedied by program Logistics requirements will not be met within budget or schedule, but can be if resources will be applied
Major (Red)	Funding is not available when needed, significant impact to supportability Supportability cannot be achieved within the current funding profile	Delays in logistics tasks with significant milestone impact Delays in logistics tasks with major impact to the ability to meet milestones or establish support capability	Significant degradation below MOS thresholds Logistics performance requirements cannot be met

Table B-2: Overall Program Assessment and Certification Criteria

OVERALL PROGRAM ASSESSMENT AND CERTIFICATION CRITERIA		
NOT CERTIFIED (Red)	**CONDITIONALLY CERTIFIED (Yellow)**	**CERTIFIED (Green)**
A program is not logistically certified and is RED, or HIGH RISK, when there are findings or actions outstanding that have substantial impact on the program's ability to meet logistics performance requirements within cost and schedule. The program should not proceed to a milestone decision until detailed corrective action plans are developed and in place, which will result in meeting minimum logistics performance requirements with acceptable impacts to cost and schedule. Only after these plans are in place and properly resourced to the satisfaction of the PEO/SYSCOM ILA Lead is the program considered to be logistically recertified and rated as YELLOW or GREEN, as appropriate.	A program is conditionally logistically certified as YELLOW when there are findings of moderate risk and should proceed to the milestone when there are established, detailed corrective action plans in place. However, the resolution of the finding may not occur prior to the milestone decision and requires continued monitoring. Once the action is completed, there is no expected degradation to logistics performance requirements and minimal impact to cost and schedule. Once identified actions are resolved as verified by the PEO/SYSCOM ILA Lead, the program is considered logistically low risk and the ILA is closed.	A program is logistically certified as GREEN when there are no or only minor findings. Each finding has an approved mitigation plan in place to eliminate the finding prior to the milestone decision. There is no impact in the program's ability to meet logistics performance requirements within cost and schedule.

ILA Risk Matrix

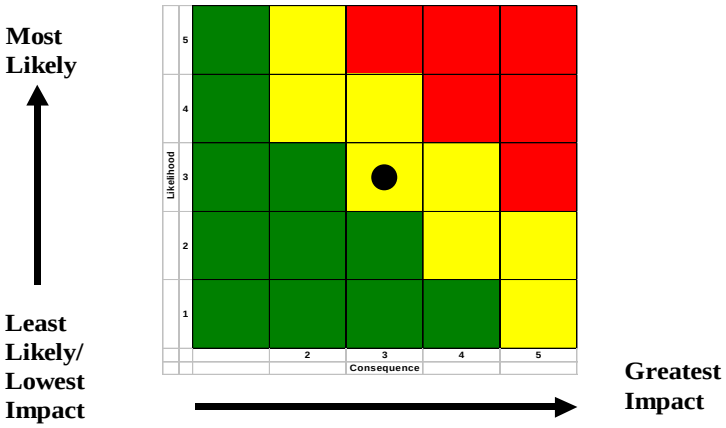

Figure B-1: ILA Risk Matrix

Table B-3a. ILA Consequence Decision Table

Level	Cost	Schedule	Performance
1	Minor or no impact to supportability	Minor or no impact to supportability	Minor or no impact to supportability
2	Some supportability impact; Re-allocatable within program	Some impact to logistics tasks; Internally adjustable with no milestone changes	Some impact to readiness, but can be remedied by program
3	Funding is not available when needed, moderate impact to supportability	Delays in logistics tasks impacting ability to meet milestones, but workarounds exist such that impact is minimal	Logistics requirements will not be met within budget or schedule, but can be if resources will be applied
4	Funding is not available when needed, significant impact to supportability	Delays in logistics tasks with significant milestone impact	Significant degradation below MOS thresholds
5	Supportability cannot be achieved within current funding profile or not identified	Delays in logistics tasks with major impact to the ability to meet milestones or establish support capability	Logistics performance requirements cannot be met

Table B-3b. ILA Likelihood Decision Table

Level	Likelihood
1	Not Likely
2	Low Likelihood
3	Likely
4	Highly Likely
5	Near Certainty

Section II – Post-FRP/FDD Rating Information

B.2 Process

Table B-4 provides rating criteria for each individual finding, IPSE, and the overall program rating for Post-FRP/FDD ILAs.

The ILA Risk Matrix in Figure B-1 and the accompanying ILA Consequence Decision Table (figure B-3a) and Likelihood Decision Table (figure B-3b) should be used to provide an overall rollup of findings onto the risk cube.

Table B-4: IPS Finding, Element and Overall Program Rating Criteria

Grade	
Low (Green)	• All Supportability Products have been (or are scheduled to be) delivered to the user in accordance with the requirements and program schedule. • Supportability KPPs, KSAs, and other measures of effectiveness are being achieved per the system requirements. • The program is meeting operational cost goals from a supportability perspective per cost estimates.
Moderate (Yellow)	• Not all Supportability Products have been (or will be) delivered to the user in accordance with the requirements and program schedule. Impact to support is not significant and workarounds are established with little or no impact to support and performance. • All Supportability Products have been delivered to the requirements but the requirement is inadequate, either because the requirement was misstated or the mission profile/threat has changed. • Supportability KPPs, KSAs, and other measures of effectiveness have not been achieved but corrective actions are funded/in process and trending toward achieving required thresholds in the near term. Overall system performance and supportability has not been degraded or is slightly degraded. • The program is exceeding operational cost goals from a supportability perspective per cost estimates, but cost reduction improvements are in place and costs are trending downward in the near term.
Major (Red)	• Not all Supportability Products have been (or will be) delivered to the user in accordance with the requirements and program schedule. Impact to support is significant and performance and supportability KPPs/KSAs are being impacted. • Supportability KPPs, KSAs, and other measures of effectiveness are not being achieved and there is no current plan, process, or funding in place to correct the finding. Overall system performance and supportability has been degraded. • All Supportability Products have been delivered to the requirements but the requirement is inadequate, either because the requirement was misstated or the mission profile/threat has changed. • The program is exceeding operational cost goals from a supportability perspective per cost estimates. Additional funding is required to support the system, and cost reduction efforts will be significant.

Appendix C -
ILA Report Content

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ILA Report Content

Objective

The objective of this Appendix is to provide the minimal content that should be included in an ILA report. However, formatting of a report is left up to the individual commands or team leads. This appendix provides content information on:

- ILA Summary/Executive Summary content
- Finding/OFI content

ILA Summary/Executive Summary Content

1. Introduction

Program: *(Identify Program)*
ACAT: *(Identify Acquisition Category)*
Next Milestone: *(Identify next milestone and date)*
MSD Authority: *(Identify the MDA)*
PEO/SYSCOM: *(Name)*
Program Manager: *(Name/code)*
Product Support Manager (or Logistics Manager depending on ACAT): *(Name/code)*
IPS Manager/Assistant Program Manager for Logistics: *(Name/code)*
System Description: *(Brief overview of the system being addressed during this decision)*
Support Concept: *(Brief overview of the maintenance concept)*
Purpose of ILA Review: *(Milestones/events being addressed)*
Scope of ILA Review: *(Identify the configuration of the system(s) being addressed during this decision)*

2. Summary of ILA

Review dates: *(Start and finish of assessment)*
Team Lead: *(Name/Code)*
Listing of ILA reviewers by element: *(Name/code)*
Conclusions and Recommendations: *(Draw conclusions regarding the program's IPS posture/risk, its ability to meet established performance metrics and to be fully supportable at system IOC; provide recommendations regarding IPS certification (including contingencies) and the program's proceeding into the next phase)*
Logistics Risk Matrix: *(Insert 5x5 risk matrix reflecting the Likelihood and Consequences of the supportability risks)*

3. Listing of criteria, color code and PM's position. *(Provide rationale for each support area not addressed)*

Assessment Criteria	Color Code
PSM Management	
Design Interface	
Sustaining Engineering	
Supply Support	
Maintenance Planning and Management	
Packaging, Handling, Storage and Transportation	
Technical Data Management	
Support and Test Equipment	
Training and Training Support	
Manpower and Personnel	
Facilities and Infrastructure	
Computer Resources and Software Support	
Product Support Budgeting and Funding	
Environment, Safety and Occupational Health	

4. Conclusions and Recommendations *(Draw conclusions regarding the program's IPS posture/risk and its ability to meet established performance metrics and be fully supported at system IOC; provide recommendations regarding IPS certification (including contingencies) and the program's readiness to proceed to the next acquisition phase)*

Individual Findings/Opportunities for Improvement: *(Format provided on page C-5)*

Status Reports: *(Identify when the PM's first status report is due and the periodicity of future reports)*

Finding/Opportunity for Improvement Content

Finding _____
Opportunity for Improvement_____

Program: *(Identify Program)*

Number: *(ILA team leader assigns numbering sequence. A number is not required for OFIs)*

Evaluator: *(Name of assessor)*

Finding/Opportunity for Improvement: *(Clearly state what the assessor thinks can, or will, create a supportability problem if left uncorrected)*

PM's position: (*Concur/non-concur and/or rationale)*

References: *(Identify documents reviewed – include date and/or version number either list or identify referenced documents in the discussion)*

IPS Element: *(Identify the IPS element affected)*

Rating: *(Red/Yellow/Green)*

Discussion: *(Assessor provides background and impact. Should specifically address the matrix and how the green/yellow/red was determined)*

Corrective Action(s): *(Assessor identifies the top level action(s) required to correct the problem(s))*

Action Office: *(Assessor identifies the action office)*

Completion Date: *(Assessor identifies the date by which the program office has indicated the problem will be corrected)*

Program Office POA&M: *(Program office provides a detailed POA&M which documents how specific issues will be resolved and should be submitted with the final report.) This can be provided as part of the certification memo if not contained in the report.*

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Appendix D -
Glossary of Terms

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Terms

Acquisition Knowledge Sharing System (AKSS): Serves as the central point of access for all AT&L resources and information, and to communicate acquisition reform. As the primary reference tool for the Defense AT&L workforce, it provides a means to link together information and reference assets from various disciplines into an integrated, but decentralized information source.

Automated Identification Technology (AIT): AIT is the broad term given to a host of technologies that are used to help machines identify objects. Auto identification is often coupled with automatic data capture to identify items, capture information about them and somehow get the data into a computer without having employees type it in. The aim of most AIT systems is to increase efficiency, reduce data entry errors and free up staff to perform more value-added functions, such as providing customer service. There are a host of technologies that fall under the AIT umbrella. These include bar codes, smart cards, voice recognition, some biometric technologies (retinal scans, for instance), Optical Character Recognition, RFID and IUID.

Built-In-Test (BIT): Provides "Built-In" monitoring, fault detection and isolation capabilities as integral feature of the system design. It can be supplemented with imbedded expert system technology that incorporates diagnostic logic/strategies into the prime system.

Business Case Analyses (BCA): The evaluation of alternative solutions for obtaining best value while achieving operational requirements balancing cost, schedule, performance and risk.

Capabilities Development Document (CDD): A document that provides the operational performance attributes, including KPPs, necessary for the acquisition community to design a proposed system and establish a program baseline, normally using an evolutionary acquisition strategy. The CDD outlines an affordable increment of militarily useful, logistically supportable and technically mature capability that can be effectively developed, produced or acquired, deployed and sustained. The CDD supports the Milestone B acquisition decision.

Capabilities Production Document (CPD): A document that addresses the information necessary to support production, testing and deployment of a specific affordable and supportable increment of an acquisition program. The refinement of performance attributes and KPPs is the most significant difference between the CDD and CPD. The CPD must be validated and approved before the Milestone C decision review.

Condition Based Maintenance (CBM): A form of maintenance based on real time assessment of the system's condition, obtained from embedded sensors and/or external tests and measurements, to forecast incipient failures for corrective actions.

Condition Based Maintenance Plus (CBM+): CBM+ expands on the CBM concept by encompassing other technologies, processes and procedures such as information system technologies that enable improved maintenance and logistics practices.

Configuration Item (CI): Any hardware, software, or combination of both that satisfies an end use function and is designated for separate configuration management. These may be functional, allocated or product configurations.

Cost Per Unit Usage (CPUU): The total operating costs divided by the appropriate unit of measurement for a given weapon system. Depending on weapon system, the measurement unit could be flight hour, steaming hour, launch, mile driven, etc.

Defense Acquisition Management Information Retrieval System (DAMIRS): DAMIR is a DOD program that provides enterprise visibility to acquisition program information. DAMIR identifies various data sources that the acquisition community uses to manage Major Defense Acquisition Programs (MDAP) and provides a unified web-based interface through which to present that information. DAMIR enables the OSD, Military Services, Congress and other participating communities to access information relevant to their missions regardless of the agency or where the data resides.

Finding: Findings are situations (planning, execution, funding, etc.) that constitute a risk of a program not being fully supportable and sustainable. More than one criterion may be grouped to a finding.

Design Reference Mission Profile (DRMP): The DRMP provides the mission profile to which the system is designed. It includes the environmental profile; functional profiles and logistics use profiles.

Diminishing Manufacturing Sources and Material Shortages (DMSMS): The loss or impending loss of the last known manufacturer or supplier of raw material, production parts, or repair parts.

Distance Support: Established so the Navy could increase the efficiency, effectiveness and speed of the shore infrastructure, reduce support footprint and associated costs, and meet the reduced staffing requirements of future weapons systems. Distance Support is a Navy program that delivers tactically significant support enabling each Commanding Officer to operate at optimum capabilities in support of the command's mission, provides the sailor with a single desktop point of entry to an integrated tool bag of distance support efforts, simplifying access to Naval maintenance, technical, supply, training, administrative and personnel resources and provides infrastructure or people-related support."

Environment, Safety and Occupational Health (ESOH): An acronym that refers to the combination of disciplines that encompass the processes and approaches for addressing laws, regulations, Executive Orders (EO), DoD policies, environmental compliance, and hazards associated with environmental impacts, system safety (e.g., platforms, systems, system-of-systems, weapons, explosives, software, ordnance, combat systems), occupational safety and health, hazardous materials management, and pollution prevention.

Full Deployment Decision (FDD): For an automated information system program, FDD is the final decision made by the Milestone Decision Authority authorizing an increment of the program to deploy software for operational use.

Full Operational Capability (FOC): In general, attained when all units and/or organizations in the force structure scheduled to receive a system that is fully mission capable 1) have received it and 2) have the ability to employ and maintain it. The specifics for any particular system FOC are defined in that system's CDD and CPD.

Full Rate Production (FRP): Contracting for economic production quantities following stabilization of the system design and validation of the production process. This effort delivers the fully funded quantity of systems and supporting materiel and services for the program or increment to the users. During this effort, units shall attain IOC.

Functional Configuration Audit (FCA): The formal examination of functional characteristics of a configuration item, or system to verify that the item has achieved the requirements specified in its functional and/or allocated configuration documentation.

Gap Analysis: Assessment of the difference between a systems design, test, production and logistics mission requirements and available COTS/NDI equipment capabilities.

Human Systems Integration: HSI integrates HFE, MP&TE, health hazards, safety factors, medical factors, personnel (or human) survivability factors, and habitability considerations into the system acquisition process.

Information Exchange Requirements (IER): The requirement for information to be passed between and among forces, organizations, or administrative structures concerning ongoing activities. IER requirements identify who exchanges what information with whom, as well as why the information is necessary and how that information will be used.

Information Interoperability: The exchange and use of information in any form, electronically, that enables effective operations for both war fighting and combat support areas both within the external activities, and synchronizes both materiel and non-materiel aspects. Information interoperability enables systems, units or forces to provide services to, and accept services from, other systems, units or forces, and to use the exchanged services to operate effectively together.

Initial Capabilities Document (ICD): Documents the need for a materiel approach to a specific capability gap derived from an initial analysis of materiel approaches executed by the operational user and, as required, an independent analysis of materiel alternatives. It defines the capability gap in terms of the functional area, the relevant range of military operations, desired effects and time. The ICD supports the Milestone A acquisition decision, and subsequent Technology Development phase activities.

Initial Operational Capability (IOC): In general, attained when some units and/or organizations in the force structure scheduled to receive a system that is partially mission capable

1) have received it and 2) have the ability to employ and maintain it. The specifics for any particular system IOC are defined in that system's CDD and CPD.

Interactive Electronic Technical Manual (IETM): A computer-based collection of information needed for the operation, diagnosis and maintenance of a system. It is optically arranged and formatted for interactive presentation to the end user on an electronic display system. Unlike other optical systems that display a page of text from a single document, IETMs present interrelated information from multiple sources tailored to user queries.

Item Unique Identification (IUID): IUID is a DoD program that encodes a globally unique item identifier (UII) in a two-dimensional data matrix (barcode) on all tangible personal property requiring traceability and accountability during its life cycle. It provides asset visibility within the DoD Supply Chain, Maintenance, Readiness, Operations, Property Accountability, and Finance. Items must have an IUID under the CLIN/SLIN if they meet the DFARS 252.211-7003 or 252.211-7007 requirements.

Key Performance Parameters (KPP): Those attributes of a system that are considered critical or essential to the development of an effective military capability. KPPs must be measurable and testable to enable feedback from test and evaluation efforts to the requirements process. KPPs are validated by the Joint Requirements Oversight Council (JROC) for JROC Interest documents, by the Joint Capabilities Board (JCB) for JCB Interest documents, and by the DoD component for Joint Integration, Joint Information, or Independent documents. Capability development and capability production document KPPs are included verbatim in the acquisition program baseline.

Key System Attribute (KSA): An attribute or characteristic considered crucial to achieving a balanced solution/approach to a system, but not critical enough to be designated a KPP. KSAs provide decision makers with an additional level of capability performance characteristics below the KPP level and require a sponsor 4-star, defense agency commander, or principal staff assistant to change.

Logistics Requirements Funding Summary (LRFS): The LRFS identifies the product support functions and sub-functions required to establish affordable and effective product support. It identifies support resource requirements and the funds available to meet those requirements. The summary displays requirements versus available funding for all IPS elements and related disciplines, by fiscal year and appropriation, and is traceable to logistic support plan tasks and activities.

Material Reliability (A_M): A_M is equal to the number of operational end items divided by the total population of end items. It measures the percentage of the population that is operational.

Milestone B: The point at which a recommendation is made and approval sought regarding starting or continuing an acquisition program, i.e., proceeding to the next phase. MS B approval allows entry into the Engineering and Manufacturing Development (E&MD) phase. E&MD has two major efforts: Integrated System Design and System Capability and Manufacturing Process

Demonstration. The entrance point is MS B, which is also the initiation of an acquisition program.

Milestone C: The point at which a recommendation is made and approval sought regarding continuing an acquisition program, i.e., proceeding to the next phase. Milestone C approval allows entry into the Production and Deployment phase. MS C authorizes entry into Low Rate Initial Production (LRIP) (for Major Defense Acquisition Programs 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 programs or software-intensive systems with no production components.

Operation and Sustainment (O&S) Costs: O&S costs are those costs that are required to operate the system and to sustain or maintain it in a ready and operational state.

Operational Availability (A_o): A_o is the percentage of time that a system will be ready to perform satisfactorily in its intended environment. It is generally defined as Up Time/(Up Time + Down Time).

Operational Mode Summary/Mission Profile: USMC equivalent to the DRMP (see DRMP)

Opportunity For Improvement: Used by the assessor to document a process that can be improved as benchmarked against a best practice but is not a finding.

Performance Based Logistics (PBL): PBL is an agreement, usually long term, in which the provider (organic, commercial, and/or public/private partnership) is incentivized and empowered to meet overarching customer oriented performance requirements (reliability, availability, etc.) in order to improve product support effectiveness while reducing TOC.

Performance Based Life Cycle Support (PBLCS): PBLCS results from an agreement, usually long term, in which the provider (organic, commercial, and/or public/private partnership) is incentivized and empowered to meet overarching customer oriented performance requirements (reliability, availability, etc.) in order to improve product support effectiveness while reducing TOC. PBLCS is usually documented in a contractual arrangement (commercial, organic or a combination of both) where the provider is held to customer oriented performance requirements, such as reliability improvement, availability improvement, and reduced delivery times with the end goal of improving logistics support to the user.

Performance Based Agreements (PBA): PBL support is usually documented in a contractual arrangement (commercial, organic or a combination of both) where the provider is held to customer oriented performance requirements, such as reliability improvement, availability improvement, and reduced delivery times with the end goal of improving logistics support to the user.

Physical Configuration Audit (PCA): The formal examination of the "as-built" configuration of a configuration item against its technical documentation to establish or verify the configuration item's product baseline. The PCA is conducted to verify that the as-built

configuration item matches the design requirements of the conditionally approved engineering drawings, software design documents and product specifications.

Product/Technical Data Package: A technical description of an item adequate for supporting an acquisition strategy, production, engineering, and logistics support. The description defines the required design configuration and procedures to ensure adequacy of item performance. It consists of all applicable technical data such as drawings, specifications, standards, manuals, performance requirements, quality assurance provisions, packaging data, etc. Documentation of computer programs and related software are technical data, while computer programs and related software are not.

Opportunity For Improvement: Suggested action(s) based on experience of assessors that would enhance or improve supportability and/or sustainability of a program.

Reliability Centered Maintenance (RCM): A disciplined logic or methodology used to identify preventive and corrective maintenance tasks to realize the inherent reliability of equipment at a minimum expenditure of resources. Preventative maintenance requirements are developed to increase system availability/reliability by identifying and correcting failures or potential failures before the system is degraded. The preventative maintenance may be based on time, materiel condition, failure rates or any combination.

Radio Frequency Identification (RFID): RFID is a generic term for technologies that use radio waves to automatically identify people or objects. There are several methods of identification, but the most common is to store a serial number that identifies a person or object, and perhaps other information, on a microchip that is attached to an antenna (the chip and the antenna together are called an RFID transponder or an RFID tag). The antenna enables the chip to transmit the identification information to a reader. The reader converts the radio waves reflected back from the RFID tag into digital information that can then be passed on to computers that can make use of it.

Total Life Cycle Systems Management (TLCSM): TLCSM is the implementation, management, and oversight, by the designated Program Manager, of all activities associated with the acquisition, development, production, fielding, sustainment and disposal of a weapon system across its life cycle. It empowers the Program Manager as the Life Cycle Manager with full accountability and responsibility for systems acquisition and follow-on sustainment.

Total Ownership Cost (TOC): Includes all costs associated with the research, development, procurement, operation, logistics support and disposal of an individual weapon system, including the total supporting infrastructure that plans, manages and executes system over its full life.

Unique Item Identifier (UII): A set of data elements marked on an item in a Data Matrix EC200 symbol that is globally unique and unambiguous; or the generic form of the concatenated data elements used as a common data base key for that unique item, and the four DoD-recognized IUID equivalents (Global Individual Asset Identifier (GIAI), Global Returnable Asset Identifier (GRAI) when assets are serialized, Vehicle Identification Number (VIN), or Electronic Serial Number (ESN), (for cell phones only)).

Appendix E -
Glossary of Acronyms

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A

ACAT	Acquisition Category
ACIM	Availability Centered Inventory Model
AIT	Automatic Identification Technology
AKSS	Acquisition Knowledge Sharing System
A_m	Materiel Availability
ANSI	American National Standards Institute
A_o	Operational Availability
AoA	Analysis of Alternatives
AP	Acquisition Plan
APB	Acquisition Program Baseline
ARROWS	Aviation Readiness Requirements Oriented to Weapon Replaceable Assemblies
AS	Acquisition Strategy
AVCAL	Aviation Coordinated Allowance List

B

BCA	Business Case Analyses
BFR	Basic Facilities Requirements
BIT	Built-In-Test
BOM	Bill of Material

C

CAI	Critical Application Item
CAIG	Cost Analysis Improvement Group
CATEX	Categorical Exclusion
CBM	Condition Based Maintenance
CBM+	Condition Based Maintenance Plus
CCA	Circuit Card Assembly
CDD	Capability Development Document
CDR	Critical Design Review
CFFC	Commander, Fleet Forces Command
CI	Configuration Item
CIO	Chief Information Officer
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CM	Configuration Management
CMC	Commandant, Marine Corps
CMMI	Capability Maturity Model Integration
CMP	Configuration Management Plan
CNIC	Chief, Naval Installations Command
CNO	Chief of Naval Operations
CONOPS	Concept of Operations
CONREP	Continuous Replenishment
COSAL	Coordinated Shipboard Allowance List

COTS	Commercial-Off-The Shelf
CPD	Capability Production Document
CPI	Critical Program Information
CPU	Central Processing Unit
CPUU	Cost Per Unit Usage
CSA	Configuration Status Accounting
CSI	Critical Safety Item
C4I	Command, Control, Communications, Computers and Intelligence

D

DADMS	DON Application and Database Management System
DAG	Defense Acquisition Guidebook
DAMIR	Defense Acquisition Management Information Retrieval
DASD(MR)	Deputy Assistant Secretary of Defense (Materiel Readiness)
DASN(ELM)	Deputy Assistant Secretary of Defense (Expeditionary and Logistics Management)
DFARS	Defense Federal Acquisition Regulation Supplement
DIACAP	DoD Information Assurance Certification and Accreditation Process
DMSMS	Diminishing Manufacturing Sources and Material Shortages
DoD	Department of Defense
DoDAAF	Department of Defense Activity Address File
DON	Department of the Navy
DOTMLPF	Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities
DRMP	Design Reference Mission Profile
DT	Development Test
DT&E	Director, Test and Evaluation

E

ECP	Engineering Change Proposal
EO	Executive Order
ESOH	Environment, Safety and Occupational Health

F

FCA	Functional Configuration Audit
FD	Full Deployment
FDD	Full Deployment Decision
FFC	Fleet Forces Command
FMECA	Failure Mode, Effects and Criticality Analysis
FMP	Facilities Management Plan
FOC	Full Operational Capability
FONSI	Finding of No Significant Impact
FPC	Facilities Planning Criteria
FRACAS	Failure Reporting, Analysis and Corrective Action System

FRP	Full Rate Production
FTA	Fault Tree Analysis

H

HAZMAT	Hazardous Material
HFE	Human Factors Engineering
HSI	Human Systems Integration

I

ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
IER	Information Exchange Requirements
IETM	Interactive Electronic Technical Manual
ILA	Independent Logistics Assessment
IMP	Integrated Master Plan
IMS	Integrated Master Schedule
IOC	Initial Operational Capability
IPS	Integrated Product Support
IPT	Integrated Process Team
IT	Information Technology
ITIL	Information Technology Infrastructure Library,
IUID	Item Unique Identification

J

JCB	Joint Capabilities Board
JCIDS	Joint Capabilities Integration and Development System
JROC	Joint Requirements Oversight Council
JUON	Joint Urgent Operational Need

K

KPP	Key Performance Parameters
KSA	Key Systems Attribute

L

LAN	Local Area Network
LCSP	Life Cycle Sustainment Plan
LCCE	Life Cycle Cost Estimate
LCM	Life Cycle Management
LMI	Logistics Management Information
LORA	Level of Repair Analysis
LRIP	Low Rate Initial Production
LRFS	Logistics Requirements Funding Summary
LFT&E	Live Fire Test and Evaluation

M

MADT	Mean Administrative Down Time
MAM	Maintenance Assist Module
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Programs
MILCON	Military Construction
MLDT	Mean Logistics Delay Time
MOA	Memorandum of Agreement
MOADT	Mean Outside Assistance Delay Time
MOU	Memorandum of Understanding
MPTP	Manpower, Personnel, and Training Plan
MRL	Manufacturing Readiness Level
MS	Milestone
MSD	Material Support Date
MSRT	Mean Supply response Time
MTBF	Mean Time Between Failures
MTTR	Mean Time To Repair

N

NATO	North Atlantic Treaty Organization
NCCA	Naval Center for Cost Analysis
NDI	Non-Development Item
NEOFF	No Evidence of Fault Found
NEPA	National Environmental Policy Act
NETC	Naval Education and Training Command
NSS	National Security System

O

OBRP	On-Board Repair Parts
OEM	Original Equipment Manufacturer

OLA	Operational Level Agreement
OMS/MP	Operational Mode Summary/Mission Profile
OSD	Office of the Secretary of Defense
O&S	Operation and Sustainment
OT	Operational Test
OT&E	Operational Test and Evaluation
OTRR	Operational Test Readiness Review

P

PARM	Participating Acquisition Requirements Manager
PBA	Performance Based Agreement
PBFR	Platform Basic Facilities Requirements
PBL	Performance Based Logistics
PBLCS	Performance Based Life Cycle Support
PCA	Physical Configuration Audit
PDASN	Product DASN
PDR	Preliminary Design Review
PEO	Program Executive Officer
PESHE	Programmatic Environment, Safety and Health Evaluation
PHS&T	Packaging, Handling, Storage and Transportation
PM	Program Manager
PMS	Planned Maintenance System
POA&M	Plans of Actions and Milestones
POC	Point of Contact
PQDR	Product Quality Deficiency Reports
PRR	Production Readiness Review
PSI	Product Support Integrator
PSM	Product Support Manager
PSP	Product Support Provider
PUK	Pack Up Kit

R

RAM	Reliability, Availability, and Maintainability
RAM-C	Reliability, Availability, Maintainability and Cost rationale
RBS	Readiness-Based Sparing
RCM	Reliability Centered Maintenance
RFID	Radio Frequency Identification
RFP	Request for Proposal
R_M	Material Reliability
RO	Requirements Officer
ROD	Record Of Decision
RTOK	Retest-OK

S

SCP	Service Cost Position
SCD	Ship Change Document
SDD	System Development and Demonstration
SEP	Systems Engineering Plan
SETR	Systems Engineering Technical Review
SFPS	Shore Facilities Planning System
SIM	Serialized Item Management
SLA	Service Level Agreement
SMR	Source, Maintenance and Recoverability
SOE	System Operational Effectiveness
SOVT	System Operational Verification Tests
SOW	Statement of Work
SPD	Ships Program Directive
SPFA	Single Point Failure Analysis
SPETERL	Ships Portable Electrical/Electronic Test Equipment Requirement List
SPO	Supply Parts Optimizer
SSA	Software Support Activity
SSAR	Ship/Shore Aviation Requirements
SSS	System/Subsystem Specification
SE&TE	Support Equipment & Test Equipment
SYSCOM	Systems Command

T

TECHEVAL	Technical Evaluation
TEMP	Test and Evaluation Master Plan
T&E	Test and evaluation
TIGER	Tiger-Availability Centered Inventory Model
TLCSM	Total Life Cycle Systems Management
TOC	Total Ownership Cost
TRL	Technology Readiness Level
TSP	Training System Plan

U

UID	Unique Identification
UII	Unique Item Identifier
UUON	Urgent User Operational Need

V

VERTREP	Vertical Replenishment