Logistics Assessment Handbook

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LOGISTICS ASSESSMENT HANDBOOK

1. PURPOSE / SCOPE

This handbook provides guidance and formats to facilitate a comprehensive assessment of the adequacy of Integrated Logistics Support (ILS) planning, management, resources and execution in support of research and development, production, fleet introduction and life-cycle support of new or modified systems (i.e. weapons platforms, systems, subsystems or equipment). SECNAVINSTs 5400.15A and 5000.2B require an Independent Logistics Assessment (ILA) for all acquisition programs prior to major decision milestones, Initial Operational Capability (IOC) and Full Operational Capability (FOC). The assessment methods described in this handbook were specifically designed to fulfill SECNAVINST 4105.1, 'ILS Assessment and Certification Requirements' with an emphasis on the Fleet as the ultimate customer of the DOD acquisition process. The methods described herein are *recommended* and may be tailored based on unique program requirements, the acquisition category, the acquisition phase/milestone, and/or the complexity of the acquisition and ILS programs. Individual Program Executive Officers (PEOs), Direct Reporting Program Managers (DRPMs) and Systems Command (SYSCOM) Commanders may also provide internal processes, guidance, and formats.

SECNAVINST 5000.2B requires that "Acquisition logistics support programs shall be planned, managed, executed, and resourced such that full logistics support will be in-place at system initial operational capability." The purpose of conducting logistics assessments is to provide upper management with reasonable, incremental assurances that the system under assessment will be logistically supportable when ultimately delivered to the fleet, and for its life cycle.

This handbook offers a methodology of conducting logistics assessments that provides the Milestone Decision Authority (MDA), (as well as the Program Manager (PM), PEO and/or SYSCOM Commander if not the MDA) with a comprehensive <u>independent</u> assessment on the status of logistics in the acquisition process. The approach described in this handbook provides a forward-looking assessment of a program's logistics posture for the milestone decision process. Further guidance on the conduct of assessments using alternative methodologies, will be added as PEOs/DRPMs/SYSCOMs develop and codify individual processes and procedures to implement SECNAVINST 4105.1.

SECNAVINST 4105.1 applies to all phases of (ACAT) acquisitions that introduce systems operated, maintained, and supported by the Navy with the

exception of systems under the responsibility of the Director, Strategic Systems Programs and the Nuclear Power Directorate of the Naval Sea Systems Command. The requirement for an ILS assessment remains pertinent for (ACAT) modification of existing systems, (ACAT) Commercial-Off-The-shelf (COTS) / Non-Developmental Items (NDI) as well as full developmental (ACAT) programs.

2. BACKGROUND

As a result of the "hollow forces" (e.g. lack of trained personnel, spare parts and maintenance capability etc.) during the mid/late 1970's, a Logistics Review Group (LRG) "audit" requirement was instituted in 1978 under the auspices of the Chief of Naval Material (CHNAVMAT) (NAVMATINST 4105.3 of 10 February 1978). The purpose was to ensure logistics supportability was planned, funded and implemented in all respects appropriate for each program's phase to avoid less than fully supportable systems being introduced into the inventory. There were few standardized audit procedures, processes, checklists or criteria in place during the initial phase of the LRG (1978 through 1983).

An LRG Branch was subsequently established (1983) in CHNAVMAT, by NAVMATINST 4105.3A of 3 November 1983, with a dedicated staff and team leaders. During this phase (1983 through 1985), standardization was implemented, certification criteria were codified, checklists were originated and tailored to a milestone phase and an auditor qualification program was initiated. Follow-up on prior issues was formalized.

Upon the disestablishment of NAVMAT in May 1985, the LRG Branch was transferred to the Chief of Naval Operations (CNO). OPNAVINST 4105.3 of 16 July 1986 codified this transition. A fifty percent reduction in staff and the dissemination of subject matter experts (i.e. "auditors" formerly primarily resident in NAVMAT) led to some changes in the basic approach to ILS audits, such as eliminating mid-milestone reviews. A major change involved auditor selection and allegiance. As a compromise (to a dedicated staff as was previously primarily provided by NAVMAT), auditors were provided from, and selected by, the Systems Commands. No longer did the auditing agent have input into who was selected to perform the audit function; the auditor qualification program was ignored. Additionally, to ensure complete independence of the product, personnel from one Systems Command were 'drafted' to review the ILS programs of another Systems Command. This introduced a certain element of unfamiliarity regarding the requirements (instructions, directives etc.)

imposed by other SYSCOMs and with "different" acquisition strategies (e.g. ship acquisitions were new to the NAVAIR and SPAWAR reviewers).

As a result of the reorganization of the Navy (effecting the emergence of the PEO/DRPM acquisition structure) and criticism regarding auditor quality, a new logistics assessment process was inaugurated in mid-1993. Under this new process, codified in SECNAVINST 4105.1 of 30 May 1996, the cognizant PEO, DRPM or SYSCOM Commander is responsible for selecting an independent team leader, forming an ILS review team, ensuring that ILS is independently assessed and certified, and that the results of the review are reported to the appropriate MDA. Also, the criteria for ILS certification were revised. The new process, termed "Independent Logistics Assessments (ILA)", is to satisfy the SECNAVINST 5400.15A requirement for an independent ILS assessment using assets derived entirely from within the acquisition community.

SECNAVINST 4105.1 transferred the responsibility for scheduling, resourcing and conducting ILS assessments from the DCNO (Logistics) (now Fleet Readiness and Logistics)) (N4) to the acquisition community. Per SECNAVINST 4105.1, the PEO/DRPM/ SYSCOM Commander is solely responsible for acquisition ILS of cognizant weapons systems and the ILS assessments thereof.

3. INTRODUCTION

The ultimate "customer" of all acquisition phases is the Fleet (i.e. the recipient and life-cycle user of the product). All logistics planning and funding is designed to ultimately support the operations and maintenance of the end item in the Fleet.

PEOs, DRPMs and SYSCOM Commanders are responsible for ensuring that an independent logistics assessment is accomplished on all programs prior to each major decision milestone, IOC or FOC. The program manager and logistics manager are heavily involved in the coordination of the logistics assessment. The PEO, DRPM or SYSCOM Commander (or designated representative) is to issue a formal statement certifying the status of ILS planning, management, resources, and execution. This certification decision must be based on an assessment, conducted per an established process, and documented in a written report .

An independent review team is to assess each of the elements of ILS, as well as related areas (e.g. configuration management), to assess the program's supportability. The review team is to identify issues, deficiencies, risks, as well as strengths, and recommend actions. The team is also to develop a summary assessment of the current status of ILS relative to where it should be at the time of the milestone decision

meeting, IOC or FOC and provide a logistics certification recommendation to the PEO, DRPM or SYSCOM Commander. The result of this assessment process is intended to be improved supportability in the Fleet.

DCNO (Fleet Readiness and Logistics)(N4) is responsible for providing training to the PEOs/DRPMs/ SYSCOM Commanders, their designated assessment team leaders and members. This training was initially provided in January 1997, has been repeated several times subsequently (contact N404A if interested) and is available on the N4 home page (http://www.n4.hq.navy.mil) by selecting 'public library' and selecting 'Logistics Assessment.' DCNO(FR&L) is also responsible for validating and overseeing the PEO's / DRPM's / SYSCOM Commander's assessment processes/procedures and ensuring that those processes result in fully supported systems at IOC. This effort is currently in-process.

Assistant Secretary of the Navy for Research, Development and Acquisition (ASN(RD&A)) memo, "Supportability Policy for Navy Implementation of Department of Defense Policy on Acquisition Reform," of 14 February 1996 states "total life-cycle cost (LCC), including logistics support and human systems integration, must be demonstrated as representing lowest cost of ownership to the Navy." Total cost of ownership is the sum of the research, development, procurement, operation, logistical support and disposal costs of an individual weapon system including the total supporting infrastructure that plans, manages and executes that weapon system program over its full life. Supportability costs, in order to be minimized, must be identified up front in the definition of the program objectives. An effort is currently underway to address operating and support (O&S) in the Operational Requirements Document (ORD) by establishing an operating and support cost per operating hour (O&S/OH) threshold for applicable systems. Program Managers must consider the total ownership cost implications of acquisition reform initiatives in their applications. Acquisition strategies must be carefully examined and trade-offs of all long-term supportability considerations conducted. These trade-offs should consider the lowest total cost of ownership to the Navy over the expected life of the item and continue throughout the design and into the construction phases. Failure to do so will only increase the supportability and life-cycle costs. Therefore, during the ILS assessments, reviewers must be shown the total ownership cost impact of each logistics support element to ensure the selected (or proposed) acquisition strategy will result in the lowest total life-cycle cost.

4. LOGISTICS ASSESSMENT PRINCIPLES

The goal of the logistics assessment is to facilitate the development and/or implementation of ILS by identifying and correcting issues / deficiencies in the early stages of acquisition when correction is simpler, more economical and does not impact operational availability. The assessment is to provide an expert second opinion (the PMs logistics team being the first) for the PEO and Program Manager, who can then bring focus and/or resources to the areas needing more emphasis.

The role of the logistics assessment is analogous to that of Commander, Operational Test and Evaluation Force (COMOPTEVFOR) in the operational evaluation of a system or equipment. COMOPTEVFOR and the Logistics Assessment team share the same concern for operational suitability and supportability of Naval systems. The logistics assessment, however, performs its functions much earlier in the acquisition cycle than COMOPTEVFOR.

Recommendations to improve acquisition and ILS policies are a natural bi-product of the assessment process. Thus, the Logistics Assessment should also provide feedback to SECNAV and CNO on possible improvements to acquisition and in-service support ILS policies.

To be an effective and useful management tool, the Logistics Assessment process should be as independent in its judgment as possible. Logistics assessments should be based on DOD / Navy policy, operational requirements, and the expert knowledge of experienced logisticians and engineers.

An ILS program should be reviewed in terms of its: a) objectives/ requirements, b) planning to achieve its logistics objectives/requirements, c) adequacy of resources to execute the plan, d) execution of the plan, and e) cost effectiveness.

4.1 *Logistics Assessments Considerations*

Some things which the PEO/PM/ILSM must decide in satisfying the SECNAVINST 4105.1 requirements are:

- continuous assessment or discreet event (snapshot),
- timeframe and scope to support the milestone decision,
- potential funding / travel requirements,
- documentation (who, what, when, how, access),
- security requirements, and
- facility requirements.

An independent logistics assessment may be conducted either as a discrete event (snapshot) or as a series of events. Continuous logistics assessments are intended to validate logistics supportability as events are occurring using the Integrated Product Team (IPT) concept. This is accomplished by embracing a total quality approach that builds in quality through independent continuous evaluation and timely correction. Whether the selected method is 'continuous' or 'discrete event', the key to satisfying SECNAVINST 4105.1 is the "independence" of the review team and support of the milestone decision.

While there is no (SECNAV) requirement to originate a formal assessment plan, some program offices have found it helpful to document the planning, timing and guidance relating to the assessment activities. Such an assessment plan would formulate a common baseline for all participants, Program Office and Sponsor as well as assessors, and would provide a historical perspective as well as forward-looking planning. The Advanced Amphibious Assault Vehicle originated such an assessment plan and used it successfully. It is provided as appendix D-5.

5. ASSESSMENT TIMING

Appendix A provides a summary of logistics assessment actions and responsibilities for pre-milestone assessments. Appendix B provides a summary of logistics assessment actions and responsibilities for IOC and FOC assessments.

It is suggested that the logistics assessment be conducted sufficiently prior to a milestone decision point (or equivalent), IOC or fleet introduction, and twenty four (24) months after IOC or fleet introduction for FOC assessments. Timing is significant because assessment results are required to support the milestone decision process. It is important to allow enough time to complete the assessment, assemble and distribute the report, resolve high priority issues, assemble a Plan of Action and Milestones (POA&M) to address outstanding issues and issue a certification/non-certification decision prior to the milestone decision briefing cycle. The timing is significant. Conducting an assessment too early will result in incomplete results due to non-availability of necessary documentation such as ILSP, request for proposal etc. In the case of IOC and FOC assessments, which necessitate Fleet visitation, timing of the assessment will be partially dependent upon availability of Fleet personnel or the subject platform (e.g. ship). These considerations must be balanced to select the optimum opportunity to conduct a thorough assessment and yet provide meaningful results to the decision making process. The LA should be scheduled by the PM and

ILS Manager well in advance to ensure that it does not "surprise" the acquisition community.

While not a SECNAVINST 4105.1 requirement, many Program Managers and ILS Managers have elected to implement a 'self assessment' on the program's logistics documentation and processes to validate readiness to undergo the ILA.

6. LOGISTICS ASSESSMENT PREPARATION

6.1 *Selecting a team leader*

The PEO/DRPM /SYSCOM Commander is responsible for the selection of an independent logistics assessment team leader (except in the case of the NAVAIR Aviation Team where AIR 3.0 selects the team leader. Selecting an appropriate and qualified team leader is critical to the success and quality of the assessment. The team leader should be selected early to allow sufficient time for the team leader to reschedule his/her workload and begin planning for the assessment. Early selection will allow time for the team leader to properly define the scope of the assessment and to coordinate any necessary travel arrangements. **The team leader should not support the program undergoing assessment** -- in this way, the SECNAVINST 4105.1 requirement for independence is satisfied. It is strongly recommended that the team leader be a certified level III logistician and an experienced ILS manager with at least three years of experience as a logistician on a similar type system, currently in the acquisition phases. An effective team leader must have intimate knowledge and understanding of the theories, concepts, policies, procedures and practices of ILS, its relationship to other disciplines such as Reliability, Maintainability and Operational Availability (R, M & Ao), applications of quantitative analytical modeling techniques, and real-life operational experience with a similar program. Additionally, the team leader must have knowledge of the entire acquisition process, the latest acquisition reform initiatives, as well as program planning and control techniques, such as the Work Breakdown Structure (WBS), Logistics Requirements and Funding Summary (LRFS), and Critical Path Method (CPM) networks. This knowledge is needed in investigating, analyzing, and assessing the overall adequacy of ILS planning, management, resources, and execution, and formulating value-added recommendations.

The assessment will normally require some **full-time** participation during the review, as well as **part-time** coordination responsibilities before and after the assessment. If

the assigned team leader is not relieved of other duties, the quality of the assessment and subsequent report will be compromised and the support to the fleet may suffer as a consequence. It is, therefore, imperative that the team leader assigned to the ILS assessment function be allowed sufficient time to perform the function; thus, providing the opportunity to succeed in this assignment and to meet the SECNAVINST 4105.1 timeliness, thoroughness and quality requirements.

6.2 *Pre-assessment coordination meeting*

After the logistics assessment team leader has been selected, a pre-assessment coordination/planning meeting between the team leader, the Program Manager, and the logistics manager is imperative. It is recommended that this meeting occur prior to the start of the assessment. The purpose of the meeting is to discuss and confirm the following:

- Responsibilities of the program office, team leader and team members.
- Purpose and scope of the assessment (e.g., Is there Government Furnished Equipment that will not be included in the review? Is this a combined milestone assessment (i.e., does the assessment address more than one milestone such as combining the Full Rate Production decision and IOC assessments)? Is there a P^3I that will not be reviewed during this assessment? etc.) (Each component to be addressed in the decision meeting should be addressed during the logistics assessment).
- Specific review procedures.
- Documentation needed by the reviewers.
- Availability and location of ILS and program documentation (a listing of available documents should be prepared prior to the assessment for distribution to team members at the pre-brief).
- Specific logistics assessment schedule of events / agenda.
- Location(s) of all assessment activities.
- Availability and identification of Program Office personnel to respond to logistics assessment team member questions.
- Security requirements and arrangements. (Access to classified material, if required).
- Conduct of the assessment including the PM's de-brief.
- Issuance of draft and final reports.
- LA Board Meeting (if held).
- Post-review procedures to include follow-up on identified issues.
- Issuance of a certification statement reflecting the results of the assessment using the criteria contained in section 10.

6.3 *Selecting Team Members*

The assessment team should be comprised of qualified individuals who are provided the time to perform the assessment as their primary duty. All team members are to be aware of their responsibilities in supporting this task and the associated time requirements. In order to ensure independence, it is recommended that team members not be supporting the program undergoing assessment in any capacity. Selection of team members should be tailored to cover all the review areas listed in section 6.4 of this handbook. *The team leader or individual members may cover more than one assessment area as qualifications permit.* The review team may consist of members selected from within the PEO, other PEOs or DRPMs, higher level commands, fleet organizations, any of the SYSCOMs, field activities, labs, contractor support, etc.

Representatives from the following organizations are to be invited to each ACAT I, II and selected III assessment:

- **Office of the Assistance Secretary of the Navy (SECNAV)(Research, Development and Acquisition)(Acquisition and Business Management -Policy and Resources) (formerly Product Integrity)**
- **DCNO, Manpower and Personnel (N1)**
- **DCNO, Logistics Planning and Innovation Division (N40), (formerly Supportability, Maintenance and Modernization Division)(N43)**
- **DCNO, Shore Activities Division (N44)**
- **DCNO, Environmental Protection, Safety and Occupational Health Division (N45)**
- **Director of Naval Training (N7)**
- **Naval Supply Systems Command (NAVSUP)**
- **Naval Facilities Engineering Command (NAVFACENGCOM)**
- **Naval Safety Center (NAVSAFECEN)**
- **The cognizant training agent**
- **Type Commanders**

The above organizations have a vested interest in the supportability of Navy systems and equipment. Accordingly, they must have the opportunity to access program documentation and assess the logistics adequacy of each program in their

cognizant areas. Appendix C-1 identifies the principle point of contact for each of the above identified organizations.

Additionally, The Naval Warfare Assessment Station (NWAS), who has extensive experience in leading and conducting ILAs, has offered the following assistance (NWAS ltr 5000, Ser QA 30/001 of 26 March 1998):

a. Providing an ILA Team Leader for PEOs.
b. Conducting related logistics assessments for assorted programs.
c. Conducting post-assessment closure of open action items and summary.
d. Compiling, coordinating, and preparing the final ILA report.
e. Providing subject matter experts in:
   - Design Interface (including reliability, maintainability, quality assurance, safety and testability),
   - Configuration Management,
   - Software Support and Software Resources,
   - Computer Aided Acquisition and Logistics Support,
   - Packaging, Handling, Storage, and Transportation,
   - Training/Training Support, Manpower, and Human Engineering,
   - Technical Data,
   - Support and Test Equipment and Calibration, and
   - ILS Budgeting, Funding, and ILS Management.

The NWAS POC is Mr. Gus Zakka at DSN 933-4955 or commercial (909) 273-4955 or email zakka.ghassan@corona.navy.mil or (909) 273-4377 for his secretary.

6.4 *Mandatory Review Areas*

The areas that are to be addressed during the assessment are:

- **Maintenance Planning** *(including mission-oriented operational availability, logistics support analysis, reliability centered maintenance, warranty, depot maintenance (including CORE and public/private competition) and installation planning). Title 10 USC 2464, amended by the FY98 Defense Authorization Act, requires that DoD maintain a core logistics capability that is Government-owned and Government-operated (including Government personnel and Government-owned and Government-operated equipment and facilities). The provision requires that the core capability include the capabilities that are necessary for repairing new systems identified as requiring a core capability within four years of the system's IOC.*
- **Supply Support** (Appendix H provides guidance)

- **Facilities** (Appendix G provides guidance)
- **Packaging, Handling, Storage and Transportation**
- **Manpower and Personnel**
- **Training and Training Support**
- **Configuration Management** *(including software)*
- **Support and Test Equipment** *(including calibration)*
- **Computer Resources Support** *(including software support, computer security, and software safety)*
- **Technical Data** *(including technical manuals and other maintenance publication, drawings, etc.)*
- **Design Interface** (Appendix E provides guidance)
  - *reliability*
  - *maintainability*
  - *risk management*
  - *quality assurance*
  - *safety*
  - *standardization*
  - *testability (BIT / BITE)*
  - *human factors engineering*

Appendix E provides a design interface checklist to assist the reviewer.

- **ILS Budgeting and Funding**
- **Total Ownership Cost (TOC) Reduction** (Appendix I provides guidance)
- **ILS Management** *(including staffing levels, organizational relationships, and systems engineering participation)*
- **Integrated Digital Environment (IDE)**
- **Environmental issues** *(including environmental planning factors and impact analysis, environmental compliance and conservation, use of environmental preferable products/services and use of recyclable products, pollution prevention, and Hazardous Material Control and Management, occupational health and radiation safety)*. (Appendix F provides guidance). SECNAVINST 5000.2B requires all programs, regardless of acquisition category, to conduct environmental, safety and health evaluations in accordance with applicable federal, state, interstate, and local environmental laws and regulations, Executive Orders (EOs), treaties, and agreements. Appendix F provides an environmental, safety and health evaluation checklist to assist the reviewer.

If any of these logistics elements are not addressed during the assessment, the LA report is to provide rationale for the omission(s).

6.5 *Logistics Assessment Announcement*

The PEO/SYSCOM/DRPM, with the assistance of the team leader, should prepare and issue an announcement letter prior to commencement of the logistics assessment. Four (4) weeks advance notice is recommended. The announcement letter should be sent to the team leader, all team members, mandatory invitees (listed in section 6.3) and Logistics Assessment Board Members (listed in section 8.3 with points of contact provided in appendix C).

At a minimum, it is recommended that the announcement letter contain the following information:

- Scope and purpose of the assessment
- A detailed agenda with:
  - Location and time of pre-brief
  - Location and times for documentation review
  - Location and times for review sessions
- A listing of team members (including codes and phone numbers) and the areas that they will be assessing
- Responsibilities of the team members
- Security clearance requirements including:
  - Level of clearance required
  - Where to send clearances (PEO/SYSCOM and contractor support)
  - Points of contact (for the program NOT the security officer)
- Points of Contact (Program office, logistics and contractor support)
- Any other needed information (e.g. travel information/data/appropriation).

7. THE LOGISTICS ASSESSMENT

7.1 *Pre-briefs*

The Logistics Assessment begins with a series of briefings commonly referred to as the pre-briefs. The pre-briefs provide the logistics assessment team with a foundation of information regarding program background, the current program, logistics structure, and a review of what is expected of them during the assessment. It is important to recognize that the assessment team members may not be familiar with the subject program and the pre-briefs are the best opportunity to impart the needed information/background that they might understand the program in its proper context. Otherwise, each reviewer must contact the program and logistics managers, individually, to gain the required understanding. The pre-briefs are designed to greatly reduce that time-consuming interface. All team members should attend the pre-briefs.

7.1.1 *Program Pre-brief*

The program pre-brief, normally presented by the Program Manager or the deputy Program Manager, is to impart a basic understanding of the acquisition program. It is recommended that the program pre-brief address:

- A general description of the system (physical as well as functional)
- System interfaces
- The planned operational use of the system
- Current status of the program (including any pertinent history and program peculiarities)
- Program size (in terms of number of units, dollars and personnel)
- Funding status
- Organizational structure of the Program Office and supporting activities
- Acquisition strategy (including contract status), milestones / schedules
- Status of the program's documentation
- Scope of the review (i.e., what portions of the system are under review and what portions are not, that is, what portions are to be addressed during the decision process)
- Program office and logistics points of contact

7.1.2 *Pre-brief on the status of Logistics*

The ILS Manager (or Program Manager/Deputy Program Manager) is to address each of the supportability areas (identified in paragraph 6.4 of this handbook) that will be reviewed by the logistics assessment team. This pre-brief should address the following:

- Structure of the ILS organization
- Structure of the ILSMT
- ILS Schedule and Milestones
- Status of ILS documentation (i.e. approval status)
- Support strategy (including unique considerations)
- Status of each logistics element (planning and execution)
- Rationale for NOT reviewing a specific area (if applicable)
- Most recent ILS review results
- Contract vehicle status
- Names and phone numbers of program office counterparts

- Any other needed information

7.1.3 *Administrative Remarks*

It is recommended that the ILS Manager, or the support staff, address administrative matters pertinent to the assessment to include:

- Location, availability, security clearance requirements of program documentation
- Organization and number of copies of documentation
- Documentation check-out procedures (Provide a list of available documents and their locations)
- Point of contact for requesting other documentation
- Security procedures and arrangements
- Availability of program office, field activity or contractor personnel

7.1.4 *Guidance to Team members*

Directly following the pre-briefs and administrative remarks, the team leader needs to provide information to logistics assessment team members on various aspects of the review itself. This briefing should address the following:

- Review of responsibilities of the team leader and team members
- Expectations
- Documentation review procedures
- Specific logistics assessment schedule of events / agenda
- Instructions on documenting observations
  - Format
  - Method of determining priorities
  - Guidance on determining the time-frame in which recommended actions need to be completed (i.e., does the action need to be completed before the Program Decision Meeting (PDM), before contract award, etc.)
  - When to provide inputs to team leader
- Post-review procedures
- Any other needed information / guidance

(It is not necessary for PMO personnel to attend this portion of the pre-brief.)

7.2 *Documentation Review*

An ILS program should be reviewed in terms of:

- Its objectives / requirements (per ORD, ILSP, TEMP, Human Systems Integration Plan (HSIP), and other ILS documents)
- Planning to achieve its objectives / requirements
- The adequacy of resources to execute the plan
- The execution of the program thus far

All team members should review applicable policy directives as part of the assessment process. Each team member should review all program documentation affecting their assigned area(s), including documents describing: requirements, planning, analysis, contracting, budgeting, funding, resources, depot maintenance (including CORE and public/private competition), and testing. Team members should read and analyze the program documentation and any test and evaluation data.

If a team member requires documents that have not been provided, they should request them from the ILS manager, team leader, or program office/ field activity counterpart or other POC identified per paragraph 7.1.3.

As a minimum, **ALL** team members should review the following documents:

- Operational Requirements Document (ORD)
- Acquisition / Integrated Logistics Support Plan (A/ILSP) or its equivalent
- Acquisition documentation (Single Acquisition Management Plan (SAMP) or other)
- Test and Evaluation Master Plan (TEMP)
- Developmental Test/Operational Test (DT/OT) Reports (if applicable)
- Request For Proposal (RFP), Statement of Work (SOW), specification and Contract Data Requirements List (CDRL) for the next phase
- Logistics contracts and deliverables from prior phase of development
- User's Logistics Support Summary (ULSS) (if applicable) or its equivalent
- Logistics Requirements and Funding Summary (LRFS) (or other budgeting and funding documentation, including backup documentation)
- Respective logistics element plan(s) (e.g., Navy Training System Plan, Computer Resources Life-cycle Management Plan etc.)
- Field activity tasking and funding documents

There is now an increased emphasis on the use of Commercial Off The Shelf (COTS) and Non-Developmental Items (NDI). Deviation from previously established and accepted ILS procedures increases the risks for inadequate or uncoordinated ILS planning and execution. Therefore, logistics assessors

should be sensitive to validating the adequacy of life cycle logistics support planning when COTS and NDI are included in a program's acquisition or modification planning.

7.3 *Field Visit (for IOC and FOC assessments)*

An assessment of a system prior to IOC and a fielded system (FOC) should focus on the support that exists in the fleet, not merely the plans for support. Examples of support questions that should be addressed during an IOC or FOC assessment include the following:

- Are Technical Manuals (hard copy or digital) available in the quantities required? Are they up to date? Do they match the fielded configurations? Are they in a digital form?
- Is the Planned Maintenance System (PMS) adequate? Are Maintenance Requirements Cards (MRCs) and Maintenance Index Pages (MIPs) up to date? Are they in a digital form?
- Does the Ship's Configuration and Logistics Support Index (SCLSI) database / Weapons System File (WSF) reflect accurate configurations? Does the Ship's Non-tactical ADP Program (SNAP) database reflect accurate system configuration?
- Is the Coordinated Shipboard Allowance List (COSAL) and/or SNAP files and/or the Aviation Coordinated Allowance List (AVCAL) and/or Naval Aviation Logistics Command Management Information System (NALCOMIS) accurate? Are allowance parts on-board?
- Is wholesale supply support adequate? Are there backorders for critical parts?
- Do Allowance Parts Lists (APLs) or Allowance Requirements Registers (ARRs) reflect the current component level configuration?
- How are software configurations tracked? Is the repository accurate?
- Does the software documentation on-board the ship match the installed software configuration? Does the ship or squadron know which software release it has? Is it reflected in the SNAP database? Does the ship's force know how to install the software?
- Are training courses adequate? Do they train on the fielded configuration(s)?
- Does 3-M data indicate uncorrected logistics problems exist? Are system thresholds for reliability, maintainability, and availability being achieved in the fleet?

- Is support equipment (SE) in the COSAL/SNAP or AVCAL/NALCOMIS? Is the required SE available?
- Are there hazardous materials in the system? If so, are they properly tracked, stored, handled, and disposed of? Are Material Safety Data Sheets (MSDS) available for all hazardous items?
- Are safety hazards properly identified?
- Are manpower requirements adequate to operate and maintain the system/equipment?
- Is approved manning sufficient for required operation and maintenance?
- Are personnel physically and mentally capable of performing required tasks?

7.4 *Logistics Assessment team discussions with program office and / or field activity counterpart (as required)*

Program Office or field activity personnel in charge of each of the areas under review and/or the ILS Manager, should be accessible to the logistics assessment team to answer questions, clarify written documents, provide further information, elaborate on future plans, etc.

7.5 *Documenting deficiencies / issues*

A deficiency or issue is defined as any condition or situation that could potentially have a negative impact on the design or acquisition of ILS, life cycle supportability, life cycle costs, or could potentially degrade operational readiness. The ILA team is to document a deficiency in ILS planning, documentation, management, resources or execution that, if not corrected, will (or may) have an adverse impact upon fleet support. Deficiencies or issues should include recommended action(s) with a specific time-frame for completion of the action (e.g., prior to contract award, prior to release of the Request-For-Proposal, prior to OPEVAL, prior to the Program Decision Meeting, etc.). A suggested format is provided in appendix D-2 and guidance for origination is contained in appendix D-2.1.

Documentation of deficiencies/issues *during* the continuous assessment is the option of the PEO / SYSCOM Commander / PM. However, deficiencies / issues which remain unresolved immediately prior to the milestone must be documented and included in the ILA report.

7.6 *Team Leader coordination with the Program Office during the Logistics Assessment*

The team leader should continually provide feedback to the program office as the assessment progresses. Preliminary or draft observations should be passed (perhaps via memo) to the program office and discussed with the ILS manager and/or the program manager as soon as possible. This may preclude team members from spending time erroneously documenting deficiencies or issues because of misunderstandings. (This happens whenever a needed document is not available at the review, the wrong point of contact is questioned, incorrect information is presented, or a number of other possible communications problems occur.) It is important to weed out these problems early so that the team leader and team members' time is not spent researching and documenting erroneous observations.

7.7 *Wrap-up debrief to ILS Manager and/or Logistics Element Managers*

Since the Logistics Assessment team leader will be providing preliminary observations and information to the ILS manager as the assessment progresses, there should be no surprises for the ILS manager at this wrap-up debrief. The team leader is to debrief the ILS manager to clarify or resolve deficiency observations that may contain errors because of unavailable documentation or personnel, discuss specific action recommendations, and surface areas that require higher level decisions.

7.8 *Wrap-up debrief to the Program Manager*

The team leader apprises the Program Manager of the logistics assessment results by providing issues, conclusions and intended recommendation(s). The Program Manager should be provided a copy of the report in advance of the meeting in order to have time to review it and to be prepared to address its contents. During the de-brief the team leader should address the following:

- Ensure unclassified nature of the report's contents.
- Ensure factual accuracy of the report's contents (including each deficiency / issue).

- Secure PM's concurrence/non-concurrence with each issue and document such concurrence/non-concurrence (PM's input may be solicited regarding the conclusions and recommendation(s), however, concurrence is not necessary).

The ILS Manager should be present during this de-brief. (Debriefs of the ILSM and the PM may be combined).

7.9 *Summary Assessment for each logistics area*

Several Program Offices and/or PEOs have elected to include a summary rating of the status of each area assessed, based upon reviewer's recommendations. These summaries are helpful to the process because, at the completion of the logistics assessment, the team leader must decide whether or not to recommend certifying the program as logistically ready to proceed. Having a matrix, which defines the readiness of each individual ILS element (paragraph 6.4) to proceed visually guides the team leader to his overall conclusions and recommendations.

8. THE LOGISTICS ASSESSMENT REPORT

8.1 *Preparation and Contents of the Logistics Assessment Report*

NOTE:

The Logistics Assessment Report has many 'customers.' It is not prepared exclusively for the PEO, DRPM or SYSCOM Commander for certification purposes. Other 'customers' include ASN(RD&A)(PPR), the MDA, DCNO (N4), each of the LA Board members as well as others who may utilize its contents such as COMOPTEVFOR. Remember that the Fleet is the ultimate customer. Therefore, all customers should be kept in mind when preparing the report.

The team leader is responsible for preparing and signing the logistics assessment report and forwarding it to the cognizant PEO, DRPM, or SYSCOM Commander. (Of course, the ILS manager should have reviewed the draft report prior to forwarding it to the PM or PEO, DRPM, or SYSCOM Commander and the PEO, DRPM of SYSCOM Commander should have reviewed it prior to external release.) The final report will be used as a basis for the ILS certification decision by the PEO, DRPM or SYSCOM Commander and will be forwarded to the MDA with a certification statement (i.e., certification granted or withheld). The depth of the report should be tailored according to the Acquisition Category and complexity of the program being assessed. *The Logistics Assessment report need not be voluminous in order to contain the needed information. Normally, a simple list, a single sentence, or a short paragraph is adequate for each section.* The report should contain the following information (appendix D-1 germane) and be signed and dated by the team leader:

- A concise program description (background, operational requirement, system/equipment description, operational scenario(s), acquisition strategy, procurement quantities, etc.).*
- A very brief description of the System/Equipment.*
- Assessment's purpose, scope and dates.
- Assessment team member's names, phone numbers, codes and the areas that they assessed.
- Explanation/rationale for any logistics element(s) not assessed.

- An explanation of well planned, managed or executed areas.
- All deficiencies/issues identified during the assessment (appendix D-2 provides a suggested format for deficiency reports and appendix D-2.1 provides origination guidance).

(The report must clearly distinguish between issues that need to be resolved prior to the PDM and issues which may be resolved in different time frames; i.e., prior to contract award, release of the RFP, OPEVAL).

- Summary of deficiencies/issues (title of each deficiency/issue/ finding (indicate whether it is a PDM or other issue), the Program Manager's concurrence/non-concurrence [add this data after the PM's debrief.] (Appendix D-3 provides a suggested format).
- Summary assessment for each logistics area (i.e., green, yellow, red).
- ILS Policy deficiencies and recommendations.
- General ILS program recommendations, conclusions and observations.
- ILS Program certification recommendation of GREEN (logistically ready to proceed), YELLOW (conditionally ready to proceed), or RED (logistically not ready to proceed). See paragraph 10 for definitions.

* This information is readily available from the program office. It is recommended that the program office provide, or assist in the preparation of, this section of the report. Program Office provided material should be reviewed in light of information presented during the pre-brief for content verification.

(The terms 'deficiency', 'issue' and 'finding' are used interchangeably; see paragraph 7.5 for definition. An 'observation' may be any situation worthy of noting, which does not require corrective action(s).)

The LA report <u>should not</u> contain the following:

- Classified or proprietary data.
- Subjective opinion.
- Minor deficiencies that are discovered, acted upon and corrected during the assessment.
- Nit-pick items.
- Argumentative statements.
- Any items not presented in the draft report or exit meeting.

8.2 *Program Manager debrief on the contents of the draft Logistics Assessment Report*

After completing the draft logistics assessment report the team leader must debrief the ILS Manager and Program Manager on the contents of the report. Although the team leader may have provided information to the program office incrementally as the assessment progressed, these debriefs provide the program office with a look at the report prior to distribution. This allows time for the program office to take a proactive approach by resolving issues or preparing POA&Ms ahead of the logistics assessment certification decision by the PEO / DRPM / SYSCOM Commander. These debriefs are also often effective in resolving disputes on observations, surfacing areas of disagreement that may need resolution at a higher level, and confirming system/equipment information contained in the report.

The team leader should obtain the PM's concurrence or non-concurrence on each issue/observation as well as on the team leader's logistics certification recommendation. An indication of the PM's concurrence/non-concurrence may be noted in the 'Summary of Observations' and the 'Certification Recommendation' sections of the draft report. After the PM's debrief, the team leader should update the draft logistics assessment report prior to distribution.

8.3 *Logistics Assessment Report Distribution*

Whether using the continuous or snapshot assessment method, the draft logistics assessment report should be completed no later than three weeks after the completion of the logistics assessment, but certainly at least several weeks in advance of the milestone decision.

The draft logistics assessment report should be provided to those reviewers who have a need to know what was ultimately included therein.

If a logistics assessment board meeting is to be held, the team leader should distribute the draft report to all board members to allow board members to have the report in-hand at least five (5) working days before the board is scheduled to meet to ensure ample time for them to review the report. For IOC and FOC reviews involving the CINCs and/or TYCOMs, the report should be distributed to allow for ten (10) or more working days for review prior to the

board meeting. The report should also include a cover letter that provides the time and location of the logistics assessment board meeting.

If a logistics assessment board meeting is not held (see paragraph 9.1), the final report should be distributed within four (4) weeks after completion of the assessment.

Distribution of the report should include the following:

- The Program Manager and Logistics Manager
- Logistics Assessment Board Chairman (regardless of whether a board meeting is to be held)
- All Logistics Assessment Board Members as identified in SECNAVINST 4105.1 and appendix C, "Logistics Assessment Board Members."

9. THE LOGISTICS ASSESSMENT BOARD

9.1 *Necessity for a Logistics Assessment Board Meeting*

The purpose of a logistics assessment board meeting is to resolve differences between the Program Manager and the logistics assessment team, ensure that each assessment area has been adequately and thoroughly addressed, and allow the board members or chairman to voice any disagreements/concerns with the report. A logistics assessment board meeting is not usually necessary if there is no disagreement between the Program Manager and the logistics assessment team leader regarding issues, observations or recommended certification status. However, upon receipt of the report, one of the Board members may desire to discuss a particular issue with the Program Manager and may even desire to convene the full or a partial Board. In such a case, that Board member should contact the Chairman to request the Board meeting.

Per SECNAVINST 4105.1, the Logistics Assessment Board Chairman is the cognizant PEO, DRPM or SYSCOM Commander. The Chairman is the ultimate decision authority regarding issues. Board members and their logistics points of contact are identified in appendix C-2, "Logistics Assessment Board Members."

9.2 *Setting up a Logistics Assessment Board Meeting*

If a logistics assessment board meeting is held, it is normally the responsibility of the team leader, in coordination with the Program Manager and

ILS Manager, to set up the time and location of the meeting. The meeting should be scheduled to ensure the availability of a suitable location and to ensure the attendance of the Board Chairman, the Program Manager, and the Logistics Assessment team leader.

The team leader should request the presence of any logistics assessment team members in areas expected to be debated during the meeting. Likewise, the program manager should have subject matter expert(s) available.

9.3 *Logistics Assessment Board Chairman pre-brief*

It is recommended that the team leader offer the logistics assessment board Chairman the opportunity for a pre-brief. The team leader should take the initiative to call the Chairman to offer this pre-brief. The chairman's pre-brief has proven to provide for a more productive board meeting. The team leader will explain the planned flow of the meeting, the format, the attendees, and provide background on any complex, sensitive or controversial issues.

9.4 *The Logistics Assessment Board Meeting*

The logistics assessment board meeting is chaired by the cognizant PEO, DRPM, or SYSCOM Commander or a designated flag level representative with the authority to certify the adequacy of logistics planning, management, and execution for cognizant programs. For NAVAIR and affiliated PEOs, AIR 3.0 will chair the board meeting per a 16 August 1990 operating agreement between AIR 00 and the Naval Aviation affiliated PEOs and as reaffirmed by AIR-01 memo 4105 Ser AIR-04L3/157 of 24 Aug 93.

The team leader will normally begin the logistics assessment board meeting with a short statement of the purpose of the meeting. If the Chairman has never chaired or attended a logistics assessment board meeting, it is usually advantageous to have the board members introduce themselves. The team leader will then present the results of the assessment by summarizing each of the observations/issues cited in the draft report. (If the report was distributed prior to the meeting (section 8.3), it should not be necessary to synopsize the program background and purpose).

9.5 *Update to the draft Logistics Assessment Report after the Board Meeting*

After the observations/issues have been discussed, the logistics assessment board chairman will provide directions to the team leader on any

changes that may be required to the draft report. These changes should then be noted in an appendix to the report and the final report forwarded to the board Chairman for approval. Appendix D-4 provides a suggested format.

10. ILS CERTIFICATION

10.1 *ILS Certification Authority*

The cognizant official is to certify whether or not a program is logistically ready to proceed using the SECNAVINST 4105.1 criteria (repeated below). The certification letter and logistics assessment report should be forwarded to the MDA with a copy to ASN (RD&A)(PPR), CNO (N43), the logistics assessment board members and other interested parties as appropriate. To preclude having a PEO/DRPM/SYSCOM Commander certify a logistics program to himself (when the Milestone Decision Authority), it is suggested a matrix similar to the sample below be developed and used to establish the proper certification authority based on ACAT level and milestone decision authority responsibility:

ACAT	Recommend ILS Certification	ILS Certification Authority	Milestone Decision Authority
I-D	ILA Team	PEO/DRPM/SYSCOM	OSD/USD/ASD
I-C	ILA Team	PEO/DRPM/SYSCOM	ASN (RD&A)
II	ILA Team	PEO/DRPM/SYSCOM	ASN (RD&A)
III	ILA Team	PEO/DRPM/SYSCOM	ASN (RD&A)
III	ILA Team	Log Division	PEO/DRPM/SYSCOM
IV	ILA Team	Log Division	PEO/DRPM/SYSCOM

If a logistics assessment board meeting is held, the certification statement, along with a copy of the final logistics assessment report should be distributed, within five (5) working days of the board meeting. If no board meeting is held, the certification statement and logistics assessment report should be distributed no later than four (4) weeks after completion of the logistics assessment.

10.2 *ILS Certification Criteria*

The ILS certification criteria established by SECNAVINST 4105.1 are:

GREEN (READY TO PROCEED)

A program is logistically ready to proceed when there are no major issues to be resolved or actions required before the Program Decision Meeting and there are commitments and realistic completion dates set for all other important matters affecting supportability or life cycle affordability.

YELLOW (CONDITIONALLY READY TO PROCEED)

A program is conditionally ready to proceed when there are major issues or actions outstanding, provided that those can be addressed and resolved subsequent to a milestone without unduly compromising supportability, readiness or life cycle cost. Programs evaluated to be **YELLOW** must clearly indicate **CONDITIONAL** certification. **Final** certification should follow upon correction of the issues responsible for the program being adjudged to be **YELLOW**.

RED (NOT READY TO PROCEED)

A program is not ready to proceed when there are major issues or actions outstanding which require resolution before a Program Decision Meeting or when realistic resources, plans or commitments are not in place for major issues or actions that are to be addressed after the Program Decision Meeting. Examples are:

- Logistics planning and execution are inadequate to ensure delivery of fully supportable systems.
- Accomplishments do not satisfy intent of Department of Defense / Department of Navy policy.
- Operational requirements do not adequately address supportability.
- Valid support requirements are not fully funded and no approved workarounds are in place.

11. CORRECTION OF OBSERVED DEFICIENCIES / ISSUES

11.1 *Closing issues and granting logistics certification*

It is suggested that the reviewing agent(s) (i.e., the team leader and original logistics element team members) evaluate the PM's/ILSM's actions taken to satisfy the issues/deficiencies. This will ensure independence of the follow-up responsibility. Otherwise, the actions taken to satisfy the deficiency may not be sufficient to achieve the desired result or to satisfy the reviewer's initial intent. Simply reporting deficiencies to the PM and ILSM and allowing them to monitor completion of corrective actions unilaterally, without verification by the reviewing agent(s) undermines the "independence" factor of ILS assessments. Self-monitoring is not in compliance with the spirit nor intent of SECNAVINST 4105.1 and can lead to the success or failure of an individual assessment and, thus by extension, the entire logistics assessment process.

There are two categories of logistics certifications available to the PEO/DRPM/SYSCOM. When a program is rated as "**GREEN - READY TO PROCEED**," it would be appropriate for the PEO/DRPM/SYSCOM to grant 'Logistics Certification' or '***Final*** Logistics Certification" for the program to enter the following phase. This will indicate the logistics program is fully adequate and ready to proceed. When the program is rated "**YELLOW - CONDITIONALLY READY TO PROCEED**," it would be appropriate for the PEO/DRPM/SYSCOM to grant '***Conditional*** Logistics Certification' for the program to enter the following phase. Doing so will notify everyone that there remain major issues or actions outstanding, which must be addressed and resolved subsequent to the milestone. All issues rated as **RED** at the time of the briefing cycle, should be briefed as unresolved issues during each briefing. Statements regarding the logistics certification status of a program should be issued sufficiently in advance of the milestone decision milestone for recipients to receive them and fully assimilate the contents.

11.2 *Major issues or unresolved key actions that are required to be accomplished prior to PDM*

For those actions that are directed to be completed prior to issuance of ILS Certification, the program manager is to provide written status on completion of each action to the cognizant MDA with a copy to ASN (RD&A)(PPR) and CNO (N43) prior to all Acquisition Review Boards (ARBs), program reviews, strategy sessions, and PDMs, as appropriate. If

there is any change in reported status between the ARB and the PDM, an updated status should be provided to the MDA, ASN (RD&A)(PPR), and CNO (N43) prior to the PDM.

Unresolved certification issues are to be addressed during the preparatory PDM briefing cycle and at the PDM. PEOs/DRPMs/ SYSCOMs should consult with the team leader regarding resolution and the status of certification issues, since the team leader should be able to provide an independent evaluation as to whether or not the issues have been adequately resolved, provided that he/she has been involved in following-up on identified issues.

11.3 *All other deficiencies / issues*

Although the status of all issues requiring resolution (certification issues) prior to the PDM must be reported to the MDA, ASN (RD&A)(PPR) and CNO (N43), the responsibility for tracking and resolution of all of the deficiencies/ issues in the report remains with the cognizant PEO/DRPM/SYSCOM.

12. LESSONS LEARNED PROGRAM

Appendix J provides a mechanism to accommodate a "living" lessons learned program. PEOs/DRPMs/ SYSCOM Commanders organizations are requested to provide inputs, based upon their logistics assessment experiences, to assist others in executing SECNAVINST 4105.1 in the future. As suggestions / lessons learned, are received, DCNO (N40) will incorporate them into the handbook, as appropriate.

13. LOGISTICS ASSESSMENT HANDBOOK FEEDBACK QUESTIONNAIRE

Appendix K provides a mechanism for updating and modernizing this handbook. Further guidance on the conduct of continuous assessments using the integrated product team, or other, methodology will be added as PEOs/DRPMs/ SYSCOMs develop and codify individual processes and procedures to implement SECNAVINST 4105.1. As revisions, and upgrades are received, N40 will incorporate them into the handbook on the N4 home page on the internet (http://www.usn.hq.navy.mil/n4) under 'office tools'.

Appendix A

SUMMARY OF LOGISTICS ASSESSMENT ACTIONS AND RESPONSIBILITIES FOR PRE-MILESTONE ASSESSMENTS

PRE-ASSESSMENT ACTIVITIES

ACTION	ACTION OFFICER	TIMING
Schedule the Logistics Assessment	Program Manager & Integrated Logistics Support Manager (ILSM)	24 weeks in advance of the milestone decision meeting (The Logistics Assessment itself should be scheduled to *begin* 16 weeks prior to the milestone decision meeting)
Update and distribute PEO/DRPM/SYSCOM Logistics Assessment Schedule	PEO/DRPM / SYSCOM Commander	Quarterly Distribution
Select the team leader	PEO/DRPM / SYSCOM Commander	At least 8 weeks prior to the start of the assessment
Hold a pre-assessment coordination meeting *	Program Manager, ILSM and Team Leader	5 weeks prior to the start of the assessment
Select team members	PEO/DRPM or SYSCOM Commander (with the assistance of the Program Manager, ILSM and Team Leader)	5 weeks prior to the start of the assessment
Finalize schedule, location, availability of team members, etc.	Program Manager, ILSM and Team Leader	4 weeks prior to the start of the assessment
Prepare and distribute Logistics Assessment announcement letter	Program Manager and ILSM (with Team Leader assistance)	4 weeks prior to the start of the assessment

* The program manager is responsible for providing spaces, equipment and supplies for the Logistics Assessment. The layout of assessment spaces should allow for ample room for the team to review documentation and hold discussions with program office counterparts. Requirements for access to classified material should be considered in the selection of a location. The use of contractor's spaces is acceptable.

Appendix A

SUMMARY OF LOGISTICS ASSESSMENT ACTIONS AND RESPONSIBILITIES FOR PRE-MILESTONE ASSESSMENTS *...continued ...*

THE ASSESSMENT
(16 Weeks prior to the milestone decision meeting)

ACTION	ACTION OFFICER	TIMING
Program Pre-brief	Program Manager	Day 1 of the assessment
Pre-brief on the status of Logistics	ILSM	Day 1 of the assessment
Administrative Remarks	ILSM	Day 1 of the assessment
Directions to Team members	Team Leader	Day 1 of the assessment
Review documentation	Logistics Assessment Team and Team Leader	As required
Team discussions with program office counterparts	Team Leader, ILSM and all team members	As required
Provide (potential) issues to ILSM and/or Logistics Element Managers	Team Leader	As required
Document results of the assessment (i.e. draft LA issues)	Logistics Assessment Team and Team Leader	Day 21 of the assessment

Appendix A

SUMMARY OF LOGISTICS ASSESSMENT ACTIONS AND RESPONSIBILITIES FOR PRE-MILESTONE ASSESSMENTS *...continued ...*

POST-ASSESSMENT ACTIVITIES

ACTION	ACTION OFFICER	TIMING
Prepare, sign and date the draft Logistics Assessment Report	Team Leader	Should be finished within 3 weeks after completion of the assessment
Coordinate the Logistics Assessment Report w/ ILSM	Team Leader	During report development
Schedule the Logistics Assessment Board Meeting (if required)	Team Leader	Within 3 weeks after completion of the assessment
De-brief the Program Manager	Team Leader	Immediately after the draft report is completed
Distribute the draft Logistics Assessment report. (This would be the final report if the PM agrees with all issues and the Board Meeting is not necessary.)	Team Leader	At least 5 working days before the Board Meeting (if held) or 4 weeks after completion of the assessment (if no board meeting is held)
Pre-brief the Logistics Assessment chairperson (if desired)	Team Leader	1-2 days prior to the board meeting
Convene the Logistics Assessment Board Meeting	Team Leader and Program Manager	Within 5 weeks after completion of the assessment
Prepare the final Logistics Assessment Report	Team Leader	Within 5 working days of the Board Meeting
Prepare the statement of ILS Certification/Non-Certification	Program Executive Office, Direct Reporting Program Manager, or SYSCOM Commander	Within 5 working days of the Board Meeting (if held) or 6 weeks after completion of the assessment. If no Board Meeting is held, this can be accomplished within 4 weeks after completion of the assessment coincident with the final assessment report.
Correct deficiencies or issues	Program Manager (monitored by the PEO, DRPM or SYSCOM Commander and/or assessment team and team leader)	As identified in POA&M(s)

Appendix B

SUMMARY OF LOGISTICS ASSESSMENT ACTIONS AND RESPONSIBILITIES FOR IOC / FOC ASSESSMENTS

PRE-ASSESSMENT ACTIVITIES

ACTION	ACTION OFFICER	TIMING
Schedule the Logistics Assessment	Program Manager	12 to 24 months in advance of IOC/FOC (The Logistics Assessment itself should be scheduled to *begin* 6 to 12 months prior to the milestone decision meeting)
Update and distribute PEO/DRPM/SYSCOM Logistics Assessment Schedule	PEO/DRPM / SYSCOM	Quarterly Distribution
Select the team leader	PEO, DRPM or SYSCOM Commander	At least 5-6 months prior to the start of the assessment
Hold a pre-assessment coordination meeting *	Program Manager and Team Leader	4 months prior to the start of the assessment
Select team members	PEO, DRPM or SYSCOM Commander (with the assistance of the Program Manager and Team Leader)	5 weeks prior to the start of the assessment
Finalize schedule, location, availability of team members, etc.	Program Manager and Team Leader	5 weeks prior to the start of the assessment
Prepare and distribute Logistics Assessment announcement letter	Program Manager (Team Leader assistance)	5 weeks prior to the start of the assessment

* The program manager is responsible for providing spaces, equipment and supplies for the pre-brief, documentation review and analysis, review sessions, and the LA meeting. The layout of assessment spaces should allow for ample room for the team to review documentation and hold discussions with program office counterparts. Requirements for access to classified material should be considered in the selection of a location. The use of contractor's spaces is acceptable.

Appendix B

SUMMARY OF LOGISTICS ASSESSMENT ACTIONS AND RESPONSIBILITIES FOR IOC / FOC ASSESSMENTS *...continued...*

THE LOGISTICS ASSESSMENT (6 to 12 Months prior to IOC/FOC)

ACTION	ACTION OFFICER	TIMING
Program Pre-brief	Program Manager	Day 1 of the assessment
Pre-brief on the status of Logistics	ILSM	Day 1 of the assessment
Administrative Remarks	ILSM	Day 1 of the assessment
Directions to Team members	Team Leader	Day 1 of the assessment
Review documentation	Logistics Assessment Team and Team Leader	As required
Field Visit	Logistics Assessment Team and Team Leader	As required
Logistics Assessment team discussions with program office counterparts	Team Leader and ILSM	As required
Provide (potential) issues to ILSM and/or Logistics Element Managers	Team Leader	As required
Document results of assessment (i.e. draft LA issues)	Logistics Assessment Team and Team Leader	As required, depending on length of field visit

Appendix B

SUMMARY OF LOGISTICS ASSESSMENT ACTIONS AND RESPONSIBILITIES FOR IOC / FOC ASSESSMENTS *...continued...*

POST-ASSESSMENT ACTIVITIES

ACTION	ACTION OFFICER	TIMING
Prepare the draft Logistics Assessment report	Team Leader	Should be finished within 3 weeks after completion of the assessment
Coordinate the draft Logistics Assessment report w / ILSM	Team Leader	During report development
Schedule the Logistics Assessment Board Meeting (if required)	Team Leader	Within 3 weeks after completion of the assessment
De-brief the Program Manager	Team Leader	Immediately after the draft report is completed
Distribute the draft Logistics Assessment report (This could be the final report if the PM agrees with all issues and the Board Meeting is not necessary.)	Team Leader	At least 10 working days before the Logistics Assessment Board Meeting (if held) OR 4 weeks after completion of the assessment (if no board meeting is held)
Pre-brief the Logistics Assessment chairperson	Team Leader	1-2 days prior to the board meeting
Hold the Logistics Assessment Board Meeting (if required)	Team Leader and Program Manager	Within 6 weeks after completion of the assessment
Prepare the final Logistics Assessment Report	Team Leader	Within 5 working days of the Logistics Assessment Board Meeting
Prepare the statement of ILS Certification/Non-Certification	Program Executive Officer, Direct Reporting Program Manager, or SYSCOM Commander	Within 5 working days of the Logistics Assessment Board Meeting (if held) OR 7 weeks after completion of the assessment. If no Board Meeting is held, this can be accomplished within 4 weeks after completion of the assessment coincident with the final assessment report.
Correct deficiencies or issues	Program Manager (monitored by the PEO, DRPM, or SYSCOM Commander and/or assessment team and team leader)	As identified in POA&M(s)

Appendix C-1 NAVY ILS ASSESSMENT REVIEWERS 2/01

Principal Name / Code	Area	POC	Location / Phone
ASN (RD&A)(Acquisition Business Management - Policy and Resources) (formerly Product Integrity)	Relaibility, Maintainability, Quality Assurance and Manufacturing Engineering	Mr. Eric Grothues Naval Warfare Assessment Station (NWAS)	NWAS, P O Box 5000, Corona CA 91718 909-273-5275 Fax: 909-273-4123 grothues.eric@hq.navy.mil
Manpower and Personnel (N1)	Manpower and Personnel	CAPT Mike Lilienthal CNO (N125E)	Navy Annex Room 2625 703-614-5364 Fax: 703-697-8684 N125E@bupers.navy.mil
Logistics Planning and Innovation Division (N40) (formerly Supportability, Maintenance and Modernization Division) (N43)	Acquisition logistics and life-cycle costs	Mr. Jim Smith CNO (N401A)	Presidential Towers (NC 1) Suite 6300 703-601-1647 Fax: 703-604-0032 smith.jim@hq.navy.mil
Facilities and Engineering Division (N44)	Shore facilities and Military Construction Planning	CDR Eric Milner CNO (N445C)	Presidential Towers (NC 1) Suite 6000 703-604-9992 Fax: 703-604-0030/1 milner.eric@hq.navy.mil
Environmental Protection, Safety, and Occupational Health Division (N45)	Pollution prevention, Hazardous Materials, NEPA compliance, Safety, and Environmental Planning factors	Ms. Tricia Huheey CNO (N451J)	Crystal Plaza 5 Suite 780 703-604-5468 Fax: 703-602-2676 huheey.patricia@hq.navy.mil
Naval Training (N7)	Training and Training Support	Mr. Bob Zweibel CNO (N75K)	Pentagon Room 5D566 703-614-1344 Fax: 703-695-5698 zweibel.robert@hq.navy.mil
Naval Supply Systems Command (NAVSUP)	Supply Support Planning	Ms. Karen Meloy or Mr. Lenny Burdick NAVSUP (SUP 412)	5450 Carlisle Pike P. O. Box 2050 Mechanicsburg PA 17055 717-605-7254 (DSN 430) Fax: 717-605-6389 (DSN 430) karen_e_meloy@navsup.navy.mil leonard_j_burdick@navsup.navy.mil
Naval Facilities Engineering Command (NAVFACENGCOM)	Facilities and Military Construction Planning	Mr. Joe Graf NAVFAC (CHENG)	1322 Patterson Ave SE Suite 1000 Washington DC 20374-5065 202-685-0327 Fax: 202-685-1577 grafjg@navfac.navy.mil
Naval Safety Center (NSC)	Safety The area of safety may be assessed by either NSC or N45, depending on auditor availability.	Mr. Paul Kinzey (NSC) or Ms. Tricia Huheey CNO (N451J)	757-444-3520 x7232 (DSN 564) Fax: 757-444-7049 rkinzey@safecen.navy.mil Crystal Plaza 5 Suite 780 703-604-5468 Fax: 703-602-2676 huheey.patricia@hq.navy.mil
Cognizant Training Agents	Varies by equipment type	Varies by equipment	
Type Commanders	Varies by equipment type	Varies by equimpent	

Appendix C -2 LOGISTICS ASSESSMENT BOARD MEMBERS

Board Member Name / Code	Phone/Location/Fax	Logistics POC	Phone/Location/Fax	Alternate POC
Mr. Mark Honecker CNO (N40) (function transferred from N43 during CNO realignment, Oct 2000)	703-604-9972 Presidential Towers (6300) Fax: 703-604-0032	CAPT Don Hoffmann CNO (N401)	703-601-1633 Presidential Towers (6300) Fax: 703-604-0032	Jim Smith CNO (N401A) 703-601-1649
Mrs. Bonnie Morehouse ASN (M&RA)	703-697-2180 Pentagon 4E788 Fax: 703-614-3889	CDR Lois Gruendl ASN(M&RA)	703-695-4350 Pentagon 4E788 Fax: 614-3889	TBD
CAPT Charles Lasko ASN(RDA)(ABM-PR) (formerly LOG)	703-602-2364 CP-5 rm 538 Fax: 703-602-3129	Mr. Pete Chase	703-602-2501 CP5 rm 536 Fax: 703-602-3129	NONE
Mr. Bill McAninch ASN(RDA)(ABM-PR) (formerly PI)	703-602-2390 CP 5 rm 536 Fax: 703-602-3129	Eric Grothues Grothues.eric@hq.navy.mil	703-602-2390 or 909-273-5275 Fax: 909-273-4123	NONE
CAPT Lee Dick CNO (N795)	703-697-0182 Pentagon 5D566 Fax: 703-695-5698	Mr. Bob Zweibel CNO (N795K) Zweibel.Robert@hq.navy.mil	703-614-1344 Pentagon 5D566 Fax: 703-695-5698	NONE
Dr. Get Moy, Chief Engineer, Naval Facilities Engineering Command/Washington NavyYard Moygw@navfac.navy.mil	(202) 685-9165 WNY, Suite 1000 Washington, D.C. 20374-5065 Fax: 202-685-1577	Mr. Joe Graf grafjg@navfac.navy.mil	202-685-0327 Fax: 202-685-1577 Same location	NONE
Mr. Lenny Burdick SUP-419 Leonard_j_burdick@navsup.navy.mil	717-605-7254 (DSN 430) 5450 Carlisle Pike, Box 2050 Mechanicsburg PA 17055 Fax: 717-605-6389	Ms. Karen Meloy SUP-412 Karen_e_meloy@navsup.navy.mil	717-605-7254 (DSN 430) 5450 Carlisle Pike, Box 2050 Mechanicsburg PA 17055 Fax: 717-605-6389	Mr Mike Schleinkofer SUP-4121 717-605-1461
Col. Dillard LPC *{Marine Corps Programs only}*	703-695-8997 Navy Annex Rm 2309 Fax: 703-695-9114	Sally Amberger LPC ambergersa@hqmc.usmc.mil	703-695-9105 / 9070 Navy Annex Rm 2309 Fax: 703-695-9114	TBD
CNO Warfare area sponsor (N8, N6 or N4)	varies by program	Varies	varies	varies
Ms. Elsie Munsell DASN (Environment & Safety) Fax: 703-588-8428	703-588-6670 Suite 9000, 1777 N. Kent St Rosslyn VA	Mr. Dan Reinhard Director of Health and Safety	703-588-6684 Same location Fax: 703-588-8428	NONE
CAPT Mike Lilienthal CNO (N125E)	703-614-5364 Navy Annex Rm 2625 Fax: 703-697-8684	TBD	TBD	TBD
RADM Frank Dirren CNO (N09F)	757- 444-4354 NSC Norfolk Va Fax: 757-444-7205	CAPT Kurt Garbow CNO (N09FB)	703-693-7018 Pentagon 5B666 Fax: 703-614-0268	NONE
Cognizant Training Agent	varies by program	Varies	varies	varies
RADM Walter B. Massenburg ** AIR - 3.0	301-757-8435 Pax River Bldg 449 Fax: 301-757-3372	Mr. Lawrence Milan AIR-3.0A	301-757-8456 Pax River Bldg 449 Fax: 301-757-3372	John Harris 301-757-3085 Fax: 301-342-8251

** Per operating agreement of 16 Aug 90 between AIR-00 and the Naval Aviation PEOs, AIR-3.0 will chair the Logistics Assessment Board and serve as PEO point of contact for coordination with

OPNAV.

Appendix D
RECOMMENDED FORMATS

1. LA Report

The team leader is responsible for preparing the Logistics Assessment report. The report is used as a basis for the ILS certification decision statement. The depth of the report should be tailored according to the milestone, acquisition category, and complexity of the program being assessed. The report need not be voluminous. Normally, a simple list, a simple sentence, or a short paragraph is adequate to address each of the following:

- A concise program summary (i.e., name, ACAT level, next milestone and planned milestone date, identification (including code and phone number) of Program Manager, ILS Manager, resource sponsor and (if applicable) interservice relationships). *
- A concise description of the program (background, operational requirement, acquisition strategy, procurement quantities etc.). *
- A very brief description of the System/Equipment.
- A concise statement of System/Equipment's operational scenario. *
- Assessment's purpose, scope, and dates.
- Assessment team member's names and the areas that they assessed.
- Well planned, managed or executed areas (optional).
- All issues identified during the assessment. (The report must clearly distinguish between issues that need to be resolved prior to PDM and issues which may be resolved in different time frames (i.e., prior to contract award, release of the RFP or OPEVAL) or in the course of normal operations.) (Paragraph 7.5 provides a prioritization system).
- Summary of issues: title of each issue, the color rating (or code), or an indication of whether it is a PDM issue or not, the Program Manager's concurrence or non-concurrence.
- Summary Assessment for each logistics area (i.e. red, yellow, green). If any area was not assessed, provide rationale.
- ILS Policy deficiencies, issues and recommendations (if applicable).
- General ILS program conclusions and overall observations.
- General ILS program recommendations relating status of the ILS program to the acquisition phase and associated events.
- Program certification recommendation (GREEN (logistically ready to proceed), YELLOW (conditionally ready to proceed), or RED (not ready to proceed)).

* This information is readily available through the program office.

2. Observation of Program Issue or Deficiency (see attached D-2)

3. Summary of Issues (see attached D-3)

4. Changes to LA Report Resulting from the Board Meeting (see attached D-4)

Appendix D-2

OBSERVATION OF PROGRAM ISSUE OR DEFICIENCY

Name of Program: Observation Number:
Assessment Area: Date:

References: (a)
(b)
(c)
(d)

Observation (one sentence):

Discussion:

Required Corrective Action(s): [Include recommended time frame for completion (i.e., prior to the PDM, prior to contract award, prior to release of the RFP, prior to OPEVAL, etc.) or priority category]:

Action Office:

Appendix D-2.1

GUIDANCE FOR ORIGINATION OF AN OBSERVATION OF PROGRAM ISSUE OR DEFICIENCY

Introduction: A deficiency or issue is defined as any condition or situation that could potentially have a negative impact on the design or acquisition of ILS, life cycle supportability, life cycle costs, or could potentially degrade operational readiness. The ILA team is to document all deficiencies in ILS planning, documentation, management, resources or execution that, if not corrected, will (or may) have an adverse impact upon fleet support.

Findings should be written such that someone uninformed in logistics matters can adequately understand all issues and points of view in order to make an informed opinion. Findings and observations may or may not be the same, depending on the vernacular of the PEO/SYSCOM/ DRPM/team leader. A 'finding' may be an *issue* with what the program is doing; whereas an 'observation' may just be a *cautionary* note for future reference—or it may refer to an *issue* with the program. The team leader should clarify during the initial briefings.

Program Name: Self-evident.

Observation Number: To be assigned by the team leader.

Assessment Area: Identify the ILS element or assessment area addressed by the observation. (This may not always be clear, as in the case of funding for training facilities. Is it a funding issue? A facilities issue? Or a training issue?). However, this block generally identifies the ILS element for which the submitting reviewer is responsible and, thus, indicates who will be responsible for conducting follow-up on the issue. This block also may be used in lessons learned analysis.

Date: Date of the assessor's report to the team leader or date the team leader submits the report. The team leader should clarify.

Observation: Usually one sentence specifically defining what the program is doing incorrectly or unwisely or in violation of requirements (policy, ORD, ALSP, etc) or not doing at all. Use compete sentences—don't say for example "Training equipment

missing". This leaves one to guess what is missing -- Technical manuals? Wheels? Storage facility? Not addressed in the RFP/contract? Equipment was shipped but can't be located? Issue should be based on DoD/Navy policy or simple logic; but, not personal preferences; and issues should never address 'nits'. Do not combine unrelated issues; use a separate observation for each identified issue. Don't refer to policy, procedures, directives - that is what **references** are for. Don't explain the issue, that is what the **discussion** portion will do.

References: Statements of deficiencies / observations should be based on DoD or Navy policy (sometimes established by a memorandum) or the program's own documentation (ORD, LRFS, TEMP, ALSP) or a meeting with program office personnel. Use as many references as necessary to fully document the requirements and the issue. Use the exact policy references (e.g., DoD 5000.1/2 series, SECNAVINST 5000.2, program's ALSP or LRFS) to which the observation is related---for lengthy policies, inclusion of a paragraph number is helpful. The reviewer is responsible to ensure they are referencing current policy (not outdated or cancelled) and referencing current program documentation. Never reference a superseded requirement unless the succeeding requirement is very new and has not been implemented yet; then, reference both the new and the preceding requirement. (Most requirements are evolutionary). Don't refer to a MIL-STD as a policy document, because it isn't--however, using a MIL-STD, as guidance, is acceptable if you identify the implementing instruction. If program documentation is inconsistent or incomplete, identify all applicable documents and their approval dates. Also, identify whether the documents are draft (otherwise, it will be assumed they are approved). Always include the date of the program document in order to eliminate any possible confusion over which version was reviewed to establish the observation.

Discussion: Often times this is the most difficult portion to write. This is where the writer must make his/her point regarding the "wisdom" of his position. The discussion should clearly and thoroughly define three main points: 1) what Navy policy/convention requires; 2) what the program is, or is not, doing; and 3) the (potential) impact to fleet supportability and/or life-cycle cost, if not properly corrected. If the PM/LM disagree with the **issue**, the **discussion** should also address their point of view and rationale and depict the errors therein. It is helpful to originate the issue paper and then mentally 'step back' and ask yourself "How could what I've written be misunderstood or misinterpreted? Does the **required action** fit the **issue** and does the **discussion** fully explain my position?" And then, of course, rewrite your **issue** more clearly. Murphy's law is alive and well.

Include any background necessary for understanding the deficiency and the action(s) necessary to correct the deficiency. The discussion should leave no logical doubt or room for rebuttal or argument. The better researched and better written the discussion, the less future coordination on the part of the team leader will be required.

Findings in budgeting and funding should explicitly define the deficiency (ies) and include some variation of the following explanatory chart to put the issue into proper perspective:

$ M

FY	Deficiency	Required	Funded	Difference	%
01	Operator Trainers	8.9	5.2	3.7	42

Required (or recommended) Corrective Action: Be specific and ensure the **corrective action** will actually fix the issue written in the **observation**. State clearly and concisely what action(s) should be accomplished to correct the deficiency and (as much as possible or appropriate), how and a timeframe it should be corrected. Include recommended time frame for completion (i.e., prior to NPDM, prior to contract award, prior to release of RFP, prior to OPEVAL, etc.) as appropriate. Remember you are trying to help the PM/LM fully address the issue; generalities and vagueness won't be helpful. Be cautious in wording the recommended action. You don't want to box the PM/Lm into a position whereby the action can't be closed. (EXAMPLES: "Ensure that program documents reflect the same version of software". Rationale: This is not specific enough---what program documents? There are dozens and this may present a problem for closure. Another example, "Ensure that future contracts require parts re-screening". Rationale: Open ended action—there is no point in time that this could be closed).

Action Office: Normally the PM is responsible for taking the necessary actions to ensure all deficiencies / observations are adequately, and correctly, resolved. The PM should be identified by SYSCOM and code (e.g., SPAWAR (PMW-144)). It is understood that the matrix organization (logistics manager, financial manager, class desk, field activity, etc.) may be tasked to take assigned action(s); but, the PM is ultimately responsible. If parties outside of the PM's matrix organization (i.e., NAVFAC, OPNAV sponsor, or other SYSCOM or DoD component) have responsibilities in correcting an issue, then identify them accordingly by activity and code (if known). Each **recommended action** must have a corresponding action code unless the same code is responsible to take all the actions.

Appendix D-3

SUMMARY OF ISSUES
LA REPORT
(Program name)

Issue No	STATEMENT OF DEFICIENCY	TL recommended color code	PM agrees with content and color code	LA determination
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				

Appendix D-4

CHANGES TO LA REPORT RESULTING FROM BOARD MEETING

Summary of LA Board Direction
Assessment Report
(Program)

Reference	LA Board Direction
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Issue ###	
Conclusions	
Observations	
Recommendations	

Appendix D-5

Advanced Amphibious Assault Vehicle

Independent Logistics Assessment Plan

To Support

Systems Demonstration In-Process Review

December 2000

This ILA Plan supporting the AAAV Systems Demonstration In-Process Review is approved and effective 15 July 2000.

_____

Approved By: Mark J. Delmonico
Director of Logistics
DRPM AAA

AAAV Independent Logistics Assessment Plan

1.0 Purpose. The purpose of this Plan is to provide the requirements, planning and guidance to conduct an Independent Logistics Assessment (ILA) in support of the System Demonstration In-Process Review (IPR) (Milestone II Decision (MSD II)) for the Marine Corps Advanced Amphibious Assault Vehicle (AAAV) Acquisition Category (ACAT) 1D program.

2.0 Guidance Directives. The Direct Reporting Program Manager Advanced Amphibious Assault (DRPM AAA) is responsible for certifying to the Milestone Decision Authority (MDA) that planning for logistics supportability of the AAAV is adequate, as addressed in SECNAVINST 4105.1. Guidance for ILA's within the Marine Corps is contained in Marine Corps Order 4105.4 and USMC TM4420-15/1 (Ch1), however this guidance is applicable only to programs which the Commander, MARCORSYSCOM, is the MDA. For purposes of this ILA, DRPM AAA will utilize SECNAVINST 4105.1 (30 May 1996) as the overarching policy.

3.0 Logistics Reviews. As an ACAT 1D program, the DRPM AAA is required to conduct logistics assessments prior to each IPR (Milestone (MS) review) in order to determine the adequacy of logistics support planning, management, execution, and resources. A MS I Logistics Review Group (LRG) was conducted in 1991 which resulted in a Logistics Certification Ready-To-Proceed for the program. Due to programmatic delays, the MS I Defense Acquisition Board (DAB) review was not conducted until 1995. This resulted in the need to undergo another MS-I LRG in 1994. The program was again logistically certified as Ready-To-Proceed. The AAAV Program successfully transitioned MS I in March of 1995 and entered the Program Definition and Risk Reduction (PDRR) phase.

Since the award of the PDRR phase contract, the DRPM AAA has been functioning with supported and supporting organizations in an Integrated Process and Product Development (IPPD) environment using Integrated Product Teams (IPT's). IPT's are task-organized groups of multi-disciplined experts focussed on specific program requirements. The IPT's have superseded the traditional Integrated Logistics Support Management Team (ILSMT) in addressing key logistics planning, designing AAAV for supportability, and risk identification/mitigation requirements. Several logistics related IPT's exist, typically consisting of DRPM and prime contractor (GDAMS) personnel, with augmentation by Headquarters, U.S. Marine Corps (HQMC), Marine Corps Combat Development Command (MCCDC), Marine Corps Material Command (MATCOM), Marine Corps Systems Command (MARCORSYSCOM), Department of Navy laboratories and centers, and other personnel as required. The efficiency and effectiveness of IPT's have been further enhanced by the DRPM/GDAMS co-location.

Using the expertise of these multi-faceted IPT's, DRPM AAA has examined other major logistics program processes (government, industry, and academia) to help formulate its overall supportability program goals and strategy. By having representation from major USMC organizations, DRPM AAA is ensured of satisfying logistics requirements as well as being afforded the opportunity for change whenever possible.

In the fall of 1999, the Director of Logistics conducted a pre-ILA of the program supportability planning. DRPM AAA contracted with its program management support contractor to conduct the pre-ILA. Acquisition experienced personnel, not familiar with the AAAV program, were designated, and the pre-ILA was conducted with the same rigor as an ILA that would support IPR (MS) certification. Although no pre-assessment preparation was conducted, the results of the assessment demonstrated that the logistics planning for AAAV was indeed satisfactory. The results of this assessment have been used to revise appropriate logistics processes and documentation for the AAAV supportability program. Findings, both minor and major have had corrective actions put in place. There were no critical findings.

4.0 Independent Logistics Assessment (ILA). In June 2000, as a result of a suggestion by Dr. George R. Schneiter, Deputy Director, DoD Operational Test & Evaluation, the program schedule was adjusted to accelerate the (then called) MS II Review from March 01 to November 00. This schedule change requires immediate action in terms of certifying the logistics program via a formal ILA, and promulgation of a statement by the DRPM to the MDA that the Integrated Logistics Support (ILS) program is ready to proceed into the EMD phase. This Plan is the implementing document to conduct an ILA for the AAAV program in preparation for Systems Demonstration IPR (MSD II). The ILA will be conducted under the authority of SECNAV Instruction 4105.1 using the DCNO(L) (N4) Integrated Logistics Assessment Handbook of 11 April 2000 as guidance. This can be accessed on the internet, www.n4.hq.navy.mil, under 'File Cabinet'\ 'Log Assessments'

4.1 ILA Process. The steps and timeline of the ILA process are summarized below and expanded in Table 1.

Pre-planning	Conduct	Review ILA; Prepare Report	DRPM	Discr;
July 1 - 28	1- 22 Aug	22 Aug –5	12 Sept	NLT 8 Nov

Table 1. SCHEDULE OF EVENTS

MS II (-) (weeks)	COMPLETE NLT	ACTION	RESPONSIBLE INDIVIDUAL
15	1 Aug 00	Conduct Pre-brief	DRPM-ILSM-TL
13	15 Aug 00	Review documentation	TL-ILA Team
12	22 Aug 00	Conduct Team discussions w/ LEM counterparts	ILA Team-LEM's
12	22 Aug 00	Provide potential issues to ILSM & LEM's; Develop assessment results	TL-ILA Team
10	5 Sept 00	Prepare draft ILA Report; Coordinate ILA Report w/ ILSM	TL
9	12 Sept 00	De-brief DRPM	TL (ILSM)
7	26 Sept 00	Convene Logistics Assessment Board meeting (**only if required,** or requested by ASN(RD&A))	TL-DRPM
6	3 Oct 00	Develop POA&M to Resolve Findings	ILSM-LEM's
6	3 Oct 00	Resolve Critical ILA Findings	ILSM-LEM's
5	10 Oct 00	Deliver ILA Final Report	TL (ILSM)
4	17 Oct 00	Issue ILS Certification	DRPM
0	15 Nov 00	**Pre-DAB Final Review Begins**	DRPM

4.2 ILA Announcement. The DRPM AAA and the ILA Team Leader will publish an official ILA announcement prior to the commencement of the assessment. This announcement notifies and confirms the participants identified in Table 2 below.

4.3 ILA Team. The ILA will be conducted by an assessment team composed of subject matter experts assigned to specific functional areas for review. The ILA Team Leader appointed by the DRPM AAA Director of Logistics is Mr. Mike Grant from EG&G Technical Services, Inc.. Team members will be assigned in accordance with the SECNAV guidance, and will include both government and contracted team members to ensure an appropriate assessment of the AAAV systems and equipment. Table 2. documents the ILS areas to be audited and Team member assignments.

Table 2. INDEPENDENT LOGISTICS ASSESSMENT TEAM

ASSESSMENT AREAS	INCLUDING	AAAV LE	ILA RESP ORG	POC
Team Leader		Mark Delmonico	EG&G	Mike Grant (703) 418-3423
Maintenance Planning	Mission-oriented operational availability, logistics support analysis, reliability centered maintenance, warranty, depot (Core capability) & installation planning	Rick Jensen CWO Gehris	EG&G	Dale Immel (703) 418-3426
Supply Support	Readiness Based Sparing	Maj Weston	NAVSUP	Jim Midgarden (717) 605-6391
Facilities		Rick Jensen	NAVFAC	Carl Zeigler (202) 685-0424
PHS&T		Tom Collins	EG&G	Bob Vogel (703) 418-3313
Manpower and Personnel Support		Tom Collins	MCCDC (TFSD)	LtCol Eric Peterson (703) 784-4731
Training & Training Support	Training equipment	Tom Collins	NAWC (TSD)	
HSI	HFE	Tom Collins	EG&G	Mark Shelton (703) 330-4292
Configuration Management		Rob Kepner	EG&G	John Doyle (703) 418-3022
Computer Resources Support	Software support, computer security, software safety	Craig Lamond	EG&G	Ken Davis (703) 418-3458
Support & Test Equipment	Calibration	T.J. Pittman	SYSCOM (PM TMDE)	Major Larry Spicer (703) 784-4498
Technical Data	Tech manuals, other maintenance publications	T.J. Pittman	EG&G SYSCOM (PSD-M)	Dick Smith (703) 418-3400
Design Interface	Reliability, maintainability, QA, standardization, testability,	CWO-5 Gehris	EG&G	Dick Smith (703) 418-3446 Dale Immel (703) 418-3426

ASSESSMENT AREAS	INCLUDING	AAAV LE	ILA RESP ORG	POC
ILS Budgeting & Funding	LFRS, POM	Mark Delmonico	EG&G CNO (N432)	Mike Grant (703) 418-3423 Jim Smith (703) 601-1677
ILS Management	Staffing levels, organizational relationships, systems engineering participation, TOC reduction initiatives	Mark Delmonico	CNO (N432) EG&G	Jim Smith (703) 601-1677 Mike Grant (703) 418-3423
Computer-aided Acquisition and Logistics Support (CALS)		Craig Lamond	EG&G	Mike Suiter (703) 418-3254
Environmental Issues Planning Factors & Impact Analysis	Environmental planning factors/impact/compliance/ conservation, use of environmental preferable products & services, pollution prevention, hazardous materials control & management	Sandy Fenwick	EG&G	Poppy Harrover (703) 418-3201 Randy Moore (304) 285-4606
Safety	Radiation	Sandy Fenwick	EG&G	Poppy Harrover (703) 418-3201 Randy Moore (304) 285-4606

4.4 ILA Procedure. The DRPM Director of Logistics will provide each team member with a CD containing key publications required for review in conducting the ILA. Any sensitive or classified documentation will be provided in a central location where all team members will have access as required during the conduct of the ILA. DRPM AAA will provide a meeting area where team members can work and arrange / conduct interviews with DRPM AAA staff as needed.

4.5 Security Requirements. All ILA Team members must have a Security Clearance to the Secret level and contract members will be required to sign Non-disclosure statements.

4.6. ILA Plan Approval. This ILA plan is applicable to the Advanced Amphibious Assault Vehicle System Demonstration IPR (MSD II) only. Subsequent changes, updates, and recommendations should be provided to the Director of Logistics for consideration and approval. ILA planning for the Milestone C decision will be promulgated one year prior to that program review.

4.7 ILA Findings. During the ILA, as findings are generated they will be reviewed with the responsible individual DRPM Logistics Element Manager (LEM) for that ILS area and then submitted to the ILA Team leader for review prior to being presented to the DRPM AAA Director of Logistics. Each finding presented to the ILA Team Leader will contain recommended corrective actions, recommended

certification criteria, and supporting rationale. Deficiencies/issues which will remain unresolved prior to the IPR, must be documented and included in the final ILA report.

4.8 ILA Report. The ILA Team Leader will formally present the DRPM AAA Director of Logistics with all ILA findings and request that a Plan of Action and Milestones (POA&M) be prepared to identify proposed resolution of findings. The ILA report with appropriate ILS programmatic historical background and the Finding Resolution POA&M will be provided to the DRPM AAA along with a recommendation that the program continue into EMD, or that the program not proceed into EMD until the issues identified are resolved.

5.0 Certification. The DRPM AAA will issue a Certification letter in accordance with SECNAVINST 4105.1. This letter and copy of the audit report will be provided to the MDA and other pertinent parties (ASN(RD&A), HQMC(I&L), etc)

5.1 Certification Criteria. In accordance with SECNAVINST 4105.1, the certification criteria are:

5.1.1 GREEN (Ready to Proceed). The program is considered logistically ready to proceed when there are no major issues to be resolved or actions required before the Systems Demonstration IPR (MSD II); and there are commitments and realistic completion dates for all other important matters affecting supportability or Life Cycle Affordability.

5.1.2 YELLOW (Conditionally Ready to Proceed). The program is considered conditionally ready to proceed when there are several major issues or actions outstanding, provided that those can be addressed and resolved subsequent to the Systems Demonstration IPR without unduly compromising supportability, readiness, or life cycle cost. Program evaluated 'Yellow' will clearly indicate CONDITIONAL CERTIFICATION. Final Certification will follow upon correction of the outstanding issues which precipitated the conditional finding.

5.1.3 RED (Not Ready to Proceed). The program is not ready to proceed when there are outstanding major issues which require resolution prior to the Systems Demonstration IPR, or when realistic plans, resources, or commitments are not in place for those findings that are to be addressed subsequent to the IPR.

Appendix E

DESIGN INTERFACE

As specified in paragraph 6.4 of this handbook, Design Interface consists of reliability, maintainability and availability, systems engineering, risk management, quality assurance, system safety, interoperability/standardization, human factors engineering, and testability. This appendix provides a description of the DoD and Navy requirements for the design interface elements that should be addressed by the program offices during a logistics assessment, as applicable (depending on phase, program requirements, etc.). Under acquisition reform, program offices are no longer required to document program requirements in a specific format (with the exception of those listed in SECNAVINST 5000.2B (see enclosure 5)); however, it requires that they be established and formalized. It is important to ensure that requirements are traceable in some way to the Acquisition Program Baseline (APB), the Operational Requirements Document (ORD), and the Test and Evaluation Master Plan (TEMP).

The information contained in this appendix is based upon the following sources: DoDD 5000.1, DoD 5000.2-R, SECNAVINST 5000.2B, NAVSO P-3686, DoD 4245.7-M, NAVSO P-6071 and other NAVSO P-Documents, and Navy portions of the Defense Acquisition Deskbook. These documents should be consulted for further discussion of design interface issues.

I. RELIABILITY, MAINTAINABILITY AND AVAILABILITY (RM&A)

For ILA purposes, RM&A requirements are cited in paragraph 4.3.6 of the DoD 5000.2-R and SECNAVINST 5000.2B. Whereas this paragraph will not be repeated here, these requirements are established early and updated throughout the program development.

RM&A characteristics of a weapon system have a major impact on its logistics elements and requirements. Therefore, it is critical that these parameters are not only established early and but also correctly defined in the ORD and other program documentation. RM&A thresholds and objectives must be stated in quantifiable, operational terms which can be assessed and measured during the program development phases, including Developmental and Operational Test and Evaluation (DT&E/OT&E). Additionally, RM&A thresholds and objectives are appropriate for

major subsystems and lower levels, depending on the maintenance concept. Reliability (failure rate) and maintainability (e.g., mean-time-to-repair) must be developed down to the lowest replaceable item consistent with the maintenance concept for all levels of maintenance to ensure appropriate planning for spares, tools, test equipment, training skill/levels, diagnostics and repair documentation, etc. The ORD, Acquisition Plan and TEMP, as a minimum, should be reviewed to ensure that RM&A requirements in these and other program documents are defined properly and are consistent with each other (ref par 3.4.11.2) throughout the logistics planning process. At the system level, these measures should be defined by Milestone 0 and reassessed/updated continuously.

The Request for Proposal (RFP) should communicate to the offerors the RM&A requirements that meet the ORD. Sections C, E, L, and M and the system specification should contain the RM&A numerical and applicable program requirements, inspection and acceptance requirements, proposal requirements for the offeror's statement regarding their approach to meet the requirements, and source selection criteria for RM&A. *Refer to the specific requirements below for RM&A elements that should be contained in the RFP*. Contractual reliability performance requirements may appropriately be stated in a number of ways such as a probability number, some form of Mean Time Between Failure (MTBF) or mean Cycles Between Failures (MCBF). Similarly, contractual maintainability requirements may be appropriately stated in a number of ways such as some form of Mean Time To Repair (MTTR) and Maximum Corrective Maintenance Time (for a certain percentile of failures) (such as MmaxCT at the 90th percentile). Since these RM&A values are the foundation for developing much of the logistics requirements, it is important for the program office to have confidence that the planned parameters will be achievable before OT&E. Therefore, the program office should also have some way of verifying contractor feedback during the development process that thresholds will be met.

Specific Requirements

Reliability requirements shall address both mission (e.g., mean-time-between-mission-failures) and logistics reliability (e.g., mean-time-between-failures using a series math model). Maintainability requirements address servicing, preventative, and corrective maintenance. Availability requirements shall address the readiness of the system. Prior to entering production, the program office shall plan and execute reliability, maintainability and availability of the design, test and manufacturing test activities such that equipment used to demonstrate system performance reflects a mature design. To

establish adequate and complete performance requirements, a design reference mission profile shall be developed from the ORD that includes functional and environmental profiles that:

1. Define the boundaries of the performance envelope over the life-cycle,
2. Provide the timelines (e.g., environmental conditions and applied or induced stresses profiled over time) typical of operations within the envelope, and
3. Identify all constraints (e.g., conditions of storage, maintenance, transportation, and operational use), where appropriate.

In addition, the following considerations should be applied as appropriate:

-Mission and safety single point failures shall be avoided or eliminated through design; or if not possible, be made robust or redundant.
-Dormant reliability analysis and aging and surveillance program shall be done for explosives, pyrotechnics, and other items having limited shelf or service lives. It may also be applicable for systems that are dormant or not energized for much of their life. The program shall be required to verify safety in storage, handling, reliability, and use as part of service life determination.
-Parts derating criteria must consider past component history, environmental stresses, and component criticality. Parts stress analysis and testing shall be performed to verify compliance with agreed to derating criteria under worst-case mission profile events.
-For electronic circuitry, electrostatic discharge control procedures shall be included in design, manufacturing, packaging, handling and repair processes.
-Reliability growth testing, using mission profile environments, or Highly Accelerated Life Tests shall be used to assure design maturity prior to operational testing.
-Failure data collection, analysis and reporting are a contract requirement.
-Commercial-Off-The-Shelf/Non-Developmental Items (COTS/NDI) shall be shown to be operationally suitable for their intended use and capable of meeting their allocated RM&A requirements.
-Conduct a failure modes, effects, and criticality analysis early in Phase II (EMD), as part of the design and logistics support processes, with periodic updates prior to OPEVAL and FOT&E.

The following should be part of the program's process to verify system reliability:

-Sneak Circuit Analysis: Conduct a sneak circuit analysis, as applicable, to determine unexpected paths or logic flows in hardware, software, or operator actions (for further discussion, refer to NAVSO P-3634).
-Environmental Stress Screening: Development of an environmental stress screening program (for further discussion, refer to Tri-Service Technical Brief 002-93-08) or Highly Accelerated Stress Testing for electronic hardware should be incorporated as part of the reliability program during production.
-Frequency and duration of preventative or scheduled maintenance.
-Battle damage repair capability.
-Expected maintenance levels.
-Readiness thresholds for all system downtime, including scheduled maintenance.
-Maintenance levels.
-Level of Repair Analysis. Establish and identify the level of repair. For COTS/NDI used in upgrade programs, determine the level of repair and maintenance strategy of the COTS/NDI items.
-MTTR predictions include task time analyses.

II. SYSTEMS ENGINEERING

For purposes of the ILA, the requirement for a systems engineering program are described in paragraph 4.3 of DoD 5000.2-R and SECNAVINST 5000.2B. The Government and systems engineering plan includes management strategy for ensuring that RM&A goals are met, such as implementation of a FRACAS system, strategy for establishing spares requirements, risk management, etc. RM&A design, test and manufacturing activities are documented to ensure equipment used to demonstrate system performance reflects a mature design. The plan should also discuss integration activities of the program office, prime, and supporting agencies (e.g., Software Support Agency if required, etc.). Whereas there is no mandatory format, the Government strategy is often documented in a Systems Engineering Management Plan (SEMP) or similar document. For the contractor, the requirement for a systems engineering plan should be stated in the SOW. The Government systems engineering process should be established by Milestone 0, and updated through the life of the program.

III. RISK MANAGEMENT

Risk management requirements are documented in many places throughout the DoDD 5000.1, DoD 5000.2-R and SECNAVINST 5000.2B; however, for ILA purposes the paragraphs of interest are DoDD 5000.1 section D, paragraph 1d, DoD 5000.2-R and SECNAVINST 5000.2B, paragraph 3.3.2. A risk management program should be developed early in the program, and is required at milestone decision points. Program Offices are required to establish a risk management program to identify and control performance, cost, and schedule risk. The risk management program shall identify, assess, mitigate and track risk drivers, and provide for continuous risk management throughout each acquisition phase to ensure that risks are being controlled. This shall include the establishment of a risk management process to be applied beginning in the design process to serve as a basis for evaluating and selecting alternatives, measuring progress, and documenting design decisions. The risk management effort shall address the identification and evaluation of potential sources of technical risks based on the technology being used and its related design, test, manufacturing and support processes, risk mitigation efforts, and risk assessment and analysis. Technology transition planning and criteria shall be used as part of the overall risk management effort. NAVSO P-3686, "Top Eleven Ways to Manage Technical Risk;" DoD 4245.7-M, "Transition from Development to Production;" and NAVSO P-6071, "Best Practices;" contain recommended guidelines for developing a risk management program. Risk management should also be imposed on the contractor, and the RFP sections C, L and M should ensure that the contractor and subcontractors are required to indicate how they intend to identify, assess, mitigate, and track potential risks, as well as highlight any critical technical risks which may impact performance, cost, or schedule. The SOW should require the contractor to establish and implement a risk management process containing all the elements described above. The Government risk management process should be established by Milestone 0, and updated through the life of the program.

IV. QUALITY ASSURANCE

Quality requirements are documented in DoD 5000.2-R and SECNAVINST 5000.2B, paragraph 4.3.2. For quality, the contractor is required to define, establish, and implement a quality management process that includes the following key quality activities:

> *Establishment of capable processes, monitoring and control of critical processes and product variation, establishment of mechanisms for feedback of field performance, implementation of an effective root cause analysis and corrective action system, and continuous process improvement.*

The acceptable model for a quality management system is the International Standards Organization (ISO) 9000 series or ANSI/ASQC Q9000 series (U.S. equivalent), however; the contractor may propose alternative systems as long as they are technically acceptable and meet the requirements stated above. Third party certification/registration of a supplier's quality system is not required for DoD contracts. Sections L and M of the RFP should be assessed to ensure they contain

adequate quality requirements. The Government quality assurance process should be formalized and implemented no later than Milestone II.

V. SYSTEM SAFETY

System safety requirements are documented in DoD 5000.2-R and SECNAVINST 5000.2B, paragraph 4.3.7.3. The program manager is required to identify and evaluate system safety and health hazards, define risk levels, and establish a program that manages the probability and severity of hazards associated with development, use, and disposal of the system. All safety and health hazards shall be managed consistent with mission requirements and shall be cost effective. Each management decision to accept risks associated with an identified hazard shall be formally documented. Hazards should be identified and classified according to severity and probability of occurrence. Hazard classifications should be used to develop a risk hazard index matrix and define "high" and "serious" risks in terms of this matrix for inclusion in the program's environmental, safety, and health evaluation.

The program risk assessment should be consulted to ensure that system safety and health risks have been assessed and mitigated. The program office should have preliminary analysis and planning in place at the Milestone I, with updates from risk assessments and other analyses being used on a continuous basis. The SOW should require the contractor to address all program safety requirements, objectives and risks, as well as how risks will be mitigated

VI. INTEROPERABILITY/STANDARDIZATION

Interoperability requirements are documented in DoD 5000.2-R and SECNAVINST 5000.2B, paragraph 4.3.9. Compatibility, interoperability, and integration are key goals that must be satisfactorily addressed for all acquisition programs. These goals shall be specified and validated during the requirements generation process. Satisfaction of these requirements will be addressed throughout the life cycle for all acquisition programs. Interoperability of Command, Control, Communications Computer Intelligence (C4I) shall be in compliance with DoDD 4630.5, DoDI 4630.8, and CJCSI 6212.01A. The APB, ORD, and TEMP should establish and contain the interoperability requirements. These should be demonstrated during DT&E/OT&E. The SOW should describe what the contractor will do to ensure the interoperability/ standardization requirements are met. The SOW should include the following considerations:

1. To the extent feasible, require contractors to select an item from lists of commercial standard, fully supported items that are already in the Navy supply system.
2. Require contractors to perform life cycle cost analysis whenever a new non-standard item is being proposed for installation.
3. Require contractors to obtain approval from the program manager before selecting or installing new non-standard items.

VII. HUMAN FACTORS ENGINEERING

DoD 5000.2-R and SECNAVINST 5000.2B, paragraphs 4.3.8 provide basic requirements for human systems integration. A comprehensive management and technical strategy for human systems integration shall be initiated early in the acquisition process to ensure that human performance, and safety and health aspects are integrated with other engineering and logistics elements and are considered throughout the system design and development processes. Human factors engineering requirements shall be established to develop effective human-machine interfaces, and minimize or eliminate system characteristics that require extensive cognitive, physical, or sensory skills; require extensive training or workload for intensive tasks, or result in frequent or critical errors or safety/health hazards. The capabilities and limitations of the operator, maintainer, trainer and other support personnel shall be identified prior to program initiation (usually Milestone I), and refined during the development process. Human machine interfaces shall comply with the mandatory guidelines for all C4I systems, automated information systems, and weapon systems that interface with C4I systems or automated information systems. Reports and plans and program decisions made by human systems engineering communities outside the acquisition infrastructure must reflect and be reflected in program design decisions, trade-offs, risk assessments, and test results.

VIII. TESTABILITY

Testability provides diagnostic thresholds for systems whose faults are to be detected by external and/or Built-In-Test (BIT) equipment at any maintenance level consistent with the maintenance concept. Threshold parameters typically include percent correct fault detection, percent correct fault localization/isolation to a specified ambiguity group, and percent false alarms. The system specification should specify the applicable testability requirements in performance terms, such as detection of a failure, fault isolation, etc. The primary design objective of testability is the successful

detection of a failure and its isolation to an area that permits cost-effective repair with an acceptable false alarm rate. Testability design concepts should consider:

-physical and electrical partitioning
-Unit Under Test (UUT) and Automatic Test Equipment (ATE) compatibility
-initialization requirements
-test control and access
-modularization
-visual and physical accessibility
-system-level and item-level BIT
-distributed BIT vs centralized BIT

The systems engineering plan should contain management strategy for ensuring that testability goals and requirements are met. Testability design, test and manufacturing activities are documented to ensure equipment used to demonstrate system performance reflects a mature design.

The RFP should communicate to offerors the testability requirements that meet the ORD. The solicitation should request from the offerors a plan of how testability requirements will be implemented. The SOW/specification should describe the contractor testability/ qualification requirements, and may include specific testability analysis requirements. In addition, the following testability fundamentals should be applied to all programs, as applicable.

-Diagnostic/testing requirements should be defined as part of the system engineering process based on mission needs within operational constraints.
-Design for testing should be performed during product design, not afterwards. Inherent testability concepts/requirements must be determined prior to detail design.
-Development of a testability plan for detecting and identifying potential failures to the lowest replaceable unit at each maintenance level. Testability planning should be incorporated in the systems engineering plan.
-Product design should ensure efficient test capability in production, maintenance and operational environments.
-Provide for operational readiness or in-flight monitoring.
-Provide design documentation that details manufacturing, test, and inspection requirements and any special decision criteria to be used by quality control.
-Apply vertical testability methods and documentation.

-Use the internal test capabilities of electronics by taking advantage of the testability techniques of circuit design, modularity, BIT, test and maintenance, and ATE.
-Ensure diagnostics are designed as an integral part of fault tolerant systems.
-Provide diagnostic information as part of maintenance information that identifies and explains how to locate each failure and can be directly used by repair personnel to correct the failure.

Built-in Test

BIT provides "built-in" monitoring and fault isolation capabilities as integral features of the system design. BIT can be supplemented with embedded "expert system" technology that incorporates diagnostic logic/strategy into the prime system. The following fundamentals should be applied in the performance of system design:

-Ensure maintenance and support requirements are established before starting BIT design.
-Ensure evaluation of BIT on such system parameters as risk, weight, volume, and power consumption.
-Ensure BIT, at a minimum, detects all mission critical failures and validates all redundant functions.
-Trade studies should be conducted for each maintenance level on the interaction of BIT, ATE and manual test in support of fault detection and isolation and to optimize BIT allocation in hardware, software and firmware.
-Production design studies should define where to use BIT to aid in manufacturing inspection, test and evaluation.

Appendix F

ENVIRONMENTAL, SAFETY, AND HEALTH CONSIDERATIONS

SECNAVINST 5000.2B requires all programs, regardless of acquisition category, to conduct environment safety and health evaluations and to be conducted in accordance with applicable federal, state, interstate, and local environmental laws and regulations, Executive Orders (EOs), treaties, and agreements.

Programmatic Environmental, Safety, and Health Evaluation (PESHE)

- Environmental, safety, and health (ESH) analyses shall be conducted to integrate ESH issues into the systems engineering process.
- The acquisition strategy shall include a current programmatic environmental, safety, and health (ESH) evaluation. The PESHE may be a stand-alone document referenced in other program documentation or integrated into other program documents. The ESH evaluation is to describe the Program Manager's strategy for meeting ESH requirements, establish responsibilities, and identify how progress will be tracked. The level of detail is to be dependent upon the program's maturity.
- The PESHE is to document how the PM complies with the National Environmental Policy Act (NEPA) (42 USC 4321-4370d), implementing regulations (40 CFR 1500-1508), and executive orders EO 12114 and EO 11514.
- The PESHE is to contain a plan of actions and milestones (POA&M) relating significant program events to planned and completed NEPA or EO 12114 compliance. Significant events include, conducting tests utilizing test ranges, contracting for production, planning basing or home porting locations, planning new facilities to support the system.
- The PESHE is to contain copies of NEPA decisions documented by either categorical exclusion, a finding of no significant impact (FONSI) based upon an Environmental Assessment (EA) or a record of decision (ROD) based upon an Environmental Impact Statement (EIS). Decisions covered by Executive Order 12114 should also be similarly documented.
- The PESHE is to document compliance with environmental regulations, which are a source of external constraints that must be identified during program execution.
- The PESHE is to document the program's assessment of environmental regulations, which will impact the Weapon System during production, operation, maintenance (O,I,&D) and disposal. Specific impact assessments should include; Clean Water Act, NPDES Permits, Marine Mammal Protection Act, Clean Air Act,

Air Permits, National Emissions Standards for Hazardous Air pollutants (NESHAPS,) National Ambient Air Quality Standards (NAAQS), Resource Conservation and Recovery Act, Endangered Species Act.

- The PESHE is to document actions taken for cost effective compliance with assessed regulations. This should include contract statement of work or statement of performance requirements to integrate ESH considerations. Also include, contract award selection criteria for evaluation of the offeror's ESH integration and design constraints imposed upon the contractor to minimize long-term costs of environmental compliance.
- The PESHE is to document how the program will identify and evaluate system safety and health hazards, define risk levels, and establish a program that manages the probability and severity of all hazards associated with development, use, and disposal of the system. Each management decision to accept the risks associated with an identified hazard shall be formally documented.
- The PESHE is to document actions to reduce safety and health risks and should include specific issues such as noise abatement, material toxicity, and personal protective equipment.
- The PESHE is to document the program's hazardous material management program that ensures appropriate consideration is given to eliminating and reducing the use of hazardous materials in processes and products rather than simply managing pollution created.
- The PESHE is to document hazardous materials prohibited in the weapon system design, due to operation, maintenance (O,I,&D) and disposal costs associated with the use of such materials.
- The PESHE is to document hazardous materials whose use cannot be avoided, and the program's method for communicating hazardous material content and management, to the user and support installations. Communication should include the inventory of materials incorporated into the weapon system during construction and an inventory of materials required for maintenance.
- The PESHE is to document the Program's plan for tracking, storing, handling, and disposing of hazardous materials.
- The PESHE is to document contract requirements placed upon the Engineering and Manufacturing Development (E&MD)/Production contractor to assess and utilize least hazardous materials, which meet performance requirements.
- The PESHE is to document the program's pollution prevention program, to help minimize environmental impacts and the life-cycle costs associated with environmental compliance. The pollution prevention program should identify

impacts of the system on the environment; wastes released to the environment and associated source reduction opportunities.

- The PESHE is to document recycling opportunities including metals, plastics, electronic components, oils, coolants, and refrigerants.
- The PESHE is to document the program's plan to recycle or dispose of system replaceable components during system life and the total system at end of service life.

Contract Documents - RFP/SOW/Performance Specification

- Design, development, and production RFPs/SOWs/performance specifications are to contain source selection criteria requiring the offeror to describe their proposal for incorporating environmental compliance, hazardous materials minimization, pollution prevention considerations, and how these will be addressed in system design, manufacturing, supportability, and allocated to life cycle cost.
- Contract documents are to contain requirements placed upon the E&MD/production contractor(s) to assess and utilize least hazardous materials, which meet performance requirements.
- Contract documents are to require the contractor to develop and provide a technical data package (TDP) of hazardous materials inventorying materials incorporated into the weapon system design and required for maintenance.
- Contract documents are to require the identification and implementation of recycling opportunities including metals, plastics, electronic components, oils, coolants, and refrigerants
- Contract documents are to require development of a cost-effective plan to recycle or dispose of system replaceable components during system life and the total system at end of service life.
- Contract documents are to identify hazardous materials prohibited in the weapon system design, due to operation, maintenance (O,I,&D) and disposal costs associated with the use of such materials.
- Contract documents are to require the contractor to identify and reduce safety and health risks including specific actions such as noise abatement, material toxicity and exposure reduction, personal protective equipment and injury reduction.
- Contract documents will require the contractor to identify environmental regulations, and incorporate design or production solutions which minimize impacts upon the Weapon System during operation, maintenance (O,I,&D), and disposal.

- Contracts for the concept exploration or E&MD phases should include a design goal of minimizing both the variety and volume of materials required for maintenance support of the weapon system.

Technical Data

- The ESH preference for Technical Manual development is the use of Interactive Electronic Technical Manuals at all levels of planned maintenance and repair. This has ESH advantages due to the capability for making and distributing changes as ESH regulations and technologies change over the weapon system life cycle.
- Technical Manuals should provide instructions for special handling, safe use and disposal of hazardous materials.
- Technical Manuals should identify recyclable items along with material identification and provide recycling instructions.
- The contractor/Integrated Product Team should develop a TDP (electronic file format) of hazardous materials planned for use during maintenance/repair and incorporated into the weapon system including the materials location within the weapon system. Material information in the TDP should be complete, and include nomenclature, part number, specification, manufacturer, material safety data, national stock number, quantity, and summary rational for material selection.
- The contractor/Integrated Product Team should develop a hazardous material authorized use list of all maintenance and repair materials linked to the processes in which the materials are used. This list should also identify which materials are recyclable in accordance with the weapon system technical manuals.

Facilities

- If new or modified facilities are planned to support the weapon system, NEPA compliance should be documented.
- If no new facilities are planned to support the weapon system, rationale supporting this decision should be provided. The rationale should address adequacy of installations and facilities to protect worker health, accommodate all waste streams or emissions including wastes from maintenance processes such as cleaning, washing, fluid replacements, painting, bonding, sealing, and particulate, gaseous, or noise emissions of any propulsion or power generation systems. Rationale should also discuss how facility compliance with permits issued by regulatory authorities would be achieved over the system's life cycle.

Manpower, Personnel, Training, and Training Support

- Define medical monitoring needs for personnel planned to work materials.
- Define personnel training requirements for hazardous material use, and hazardous waste management.
- Define personnel training requirements for material reuse and recycling.
- Identify weapon system manpower/training requirements for hazard control, system safety, and environmental constraints.

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

- Planning for storage and transportation of hazardous material and hazardous wastes should consider material compatibility, temperature/humidity controls, shelf life, and compliance with Department of Transportation regulations.
- Plan for use of minimum packaging materials to reduce costs and wastes.
- Plan for emergency response to transportation or storage accidents, which could result in hazardous material spills.

Support and Test Equipment

- Identify and plan to use any support equipment, which can make the reuse or recycling of materials technically and economically viable.
- Identify support equipment with the potential for contaminating system fluids and design in fail-safe methods to avoid such contamination.

Evaluate and avoid the selection and use of any test or support equipment that generates significant wastes. Generation of wastes may be due to use of calibration materials, maintenance of the equipment, or emissions due to operation of the equipment. Identify hazardous material use and waste generation by handling equipment, maintenance equipment, and any special support or test equipment.

Appendix G

FACILITIES

The assessment for the Facilities area of the ILA requires the PEO/DRPM/SYSCOM to provide documentation that demonstrates that the facilities required to support the new or modified system are properly planned, acquired and maintained and, most importantly, that they will be in place when the system is delivered to the fleet.

It is important to understand that the other areas of logistics assessment such as maintenance, supply support, training, etc. may each have facilities implications. Facilities required to support the system itself (a new ship for example), such as berthing space, dredging, shore utilities, etc. must be planned for and documented. But it is also important to document the facilities implications on other logistics areas like shop facilities necessary to support maintenance, warehouses for supply support, classrooms/trainers for training, etc. Facilities required to support the system must be acquired as an integral part of the weapons system acquisition process. The goal of the ILA is to ensure that any facilities required to support the new or modified system are properly planned and documented.

Background

OPNAVINST 11000.16A, Change 1 of 8 December 1998 (Command Responsibility for Shore Activity Land and Facilities) assigns to the Naval Facilities Engineering Command responsibility for comprehensive land and facilities planning. This instruction provides policy and guidance for the development of the Navy's regional planning initiative. The concept of regional planning provides a comprehensive long-range plan that consolidates the land and facilities planning issues for a specific Navy region. This is a departure from the Navy's land and facilities planning policy of the past, which focused on an individual Navy shore activity. The concept of regional planning recognizes the vast facility resources that the Navy has in a given region and focuses on resolving facility issues using a broader regional analysis. Regional planning will optimize the use of land and facilities across a region consistent with CNO, major claimant and regional command visions through functional consolidations, installation management (IM) initiatives, and partnering with other DoD services, federal, state and local agencies and the private sector. Military Construction, previously one of the primary means of satisfying facility deficiencies, is now considered the alternative of last resort. Planners should seek other means of satisfying a facility requirement before evaluating the use of Military Construction.

ILA Documentation

The Navy's facilities planning process has been formalized in the Shore Facilities Planning System (SFPS). This system was developed by the Naval Facilities Engineering Command and is used by shore activities to manage their shore facility assets. The PEO/DRPM/SYSCOM has the responsibility to use the SFPS to document a plan to provide the facilities required to support the system under review. The documentation must include a discussion of the facilities implications of the system with respect to each step of the SFPS. For the most part, this documentation should be included in the Integrated Logistics Support Plan (ILSP) (or its equivalent), the Logistics Requirements and Funding Summary (LRFS) (or other budgeting and funding documentation), and the facilities logistics element plan (or its equivalent). Other documents such as the Maintenance Plan, Environmental Safety and Health (ESH) Evaluation, and the Naval Training Plan should also be evaluated to determine that appropriate references are included when there are facilities impacts in the maintenance, ESH, and training areas. The individual steps of the SFPS and a discussion of what the ILA documentation should include are as follows:

Facilities Requirements

The PEO/DRPM/SYSCOM, shore activity, NAVFACENGCOM Engineering Field Division/Activity, and system manufacturer all participate in defining these requirements. Facilities required to support the new or modified system are identified in the Basic Facility Requirements (BFR). While it is important that, initially the facility requirements associated with the new or modified system be separately identified, they will ultimately be assimilated into the requirements of the shore activity and the Navy region. These Basic Facilities Requirements are identified for all the Navy-owned shore installations at which the new or modified system will be deployed (homeport location, maintenance location, training location, etc.)

The ILA documentation must identify the facility requirements necessary to support the new or modified system. The BFR is developed by initially identifying the kinds of facilities required to support and sustain the new or modified system. The kinds of support facilities which must be identified are operational requirements in direct support of the new or modified system (e.g., berthing space for ships (including utilities, dredging, special deck structural requirements for crane loads, fendering systems, etc.), parking aprons for aircraft, hangar space, transit sheds, etc. as well as support facilities like supply warehouses, maintenance facilities, training facilities (both classrooms and trainers for both operational training and maintenance training)). These Basic Facilities Requirements are developed using guidelines provided in the NAVFAC P-72 (Department of the Navy Facility Category

Codes), and NAVFAC P-80 (Facility Planning Criteria for Navy and Marine Corps Facilities). The NAVFAC P-80 provides criteria that assists in the translation of operational and support requirements into types and sizes of facilities and defines them in terms of square feet (square meters) of operational facilities, maintenance facilities, supply warehouses, administrative facilities, etc.

It should be noted that the determination of Basic Facilities Requirements are independent of the actual existing assets at a shore installation.

Assets Evaluation

The ILA must also include a discussion of what existing assets are available and suitable to help satisfy the Basic Facilities Requirements at each shore activity which will be impacted by the deployment of the new or modified system under review. Site surveys may have been conducted where the PEO/DRPM/SYSCOM, shore activity, Engineering Field Divisions/Activities (EFD/A), and system contractor visit impacted shore activities to evaluate existing, available assets and determine if they will be suitable to help satisfy the Basic Facilities Requirements. The philosophy expressed by the OPNAVINST 11000.16A, Change 1 requires that maximum use of existing assets be made.

The ILA documentation should include a discussion of how existing assets at each impacted shore activity can be used to satisfy the BFR for the new or modified system and if they are not suitable an explanation as to why. The documentation should include specifics of what facilities will be used, how many square feet (square meters) will be used, and any corrective actions/renovations that will be required to make the facility ready for the system deployment.

Analysis, Concepts and Proposals

The PEO/DRPM/SYSCOM, EFD/As, and the shore activity together determine the most suitable solutions to facility issues through site surveys and evaluations of existing assets. These solutions may include use of existing facilities, use of existing facilities which are converted from other uses or upgraded with new construction, or construction of a new facility.

The OPNAVINST 11000.16A Change 1 requires that facility issues be addressed regionally. The concept of regional planning focuses on optimizing resources and opportunities across an entire region, leveraging assets and reducing redundant functions. For example: if an new class of ships is to be introduced to the fleet and is assigned a

homeport at a specific naval station, and analysis of that action identifies certain Basic Facilities Requirements to support the ship, the facility solutions trying to satisfy those requirements must look not only at the specific naval station, but at the greater Navy region.

OPNAVINST 11000.16A Change 1 not only requires a regional perspective in seeking facility solutions, but also mandates an analysis of a variety of acquisition methods, such as the following: joint use (the sharing of Navy or non-Navy assets with other services, communities, local, state and federal agencies); outsourcing ("contractor" operates government-owned facilities or their own); privatizing (government relinquishes all interest in the venture including real and personal property and buys services); leasing; construction; and other innovative acquisition methods beneficial to the Navy.

The ILA documentation must include a discussion of the solutions to the facilities issues associated with the new or modified system and how they meet the guidance of the OPNAVINST 11000.16A Change 1.

Privatization/Outsourcing

The Secretary and the Chief of Naval Operations are strongly committed to reducing the cost of infrastructure to provide funds for recapitalization and modernization of the Navy Force Structure. The result will be a better equipped and more efficient Navy organization. This is an undertaking of enormous proportions, challenging both the business practices and culture of the Navy. A basic premise associated with infrastructure cost reductions is that the private sector is capable of providing many products and services at the same or higher quality at lower costs. Additionally, the Navy believes that infrastructure costs will continue to decrease as long as competition for such products and services remains open to more than a single provider.

Historically, the Navy has pursued outsourcing (defined as the transfer of a function performed in-house to the private sector) through the traditional approach of Commercial Activities Studies using the OMB Circular A-76 Procedures. The A-76 process ensures that we only outsource when it is cost effective to do so. This approach has met with considerable success over the past two decades and we intend to continue to seek out A-76 competition candidates aggressively. The Navy has established an Outsourcing Support Office staffed by acquisition experts to assist our field activities to expedite the completion of these competitions. We also provide contractual support to assist in conducting the A-76 studies. This approach by itself, however, will not generate all of the savings we see potentially available through exploiting the full spectrum of competitive sourcing

opportunities. The Chief of Naval Operations has established a branch (N465) to oversee the Navy's efforts in these areas. In addition to A-76, the Navy will explore a number of approaches to include privatization, community-use, and public-private partnerships, coupled with the concept of continuous competition, thus replacing the traditional "single provider" for the performance of a commercial activity.

Privatization will be explored when the Navy no longer must own the assets and the mission can be fulfilled by transferring the assets and the employees to the private sector. The benefit to the Navy is immediate as the cost of maintenance and the salaries cease at the time of the privatization action. There is a one-time benefit to the government on the profit from the transfer of the assets. Successful use of this approach depends upon the specific product or service, the value of the assets, the timeline for turnover of the assets, and the potential revenues.

Community use is a process that will be explored when the Navy has a mission requirement to retain ownership of the assets. This method promotes the shared use of facilities with the private sector or other government organizations. Facilities and equipment which are not fully utilized by the Navy are leased, to the private sector resulting in a positive cash flow which can be applied to recapitalization and modernization. Successful use of this approach depends upon the condition of the facility, the projected maintenance costs of the facility and equipment, and any security and public interest issues.

Public-private partnership is a process that will be considered when the Navy and a private sector entity have an interdependent mission. This method recognizes the mutual interests in a particular product or service. Normally such services or products are highly specialized or have very limited use outside the maritime mission. This approach should be explored when other approaches to outsourcing appear to be ineffective or more costly. An example could be any "single source provider" where a business monopoly would not prove advantageous for the Navy in the long run.

Expanded use of outsourcing approaches will be most beneficial to the Navy if we are able to have available continuous, highly competent competition. This means that even when the Navy decides a particular product or service can best be provided by the private sector, we must not shift toward a "single product/service provider." A single provider may not sustain our projected savings. We must insist that "multiple award contracts" or indefinite quantity contracts be awarded to the maximum extent possible. A successful example of this approach is our own use of indefinite delivery/indefinite quantity contracts awarded to

multiple contractors to provide technical support to our field activities in their outsourcing effort.

Military Construction

Military Construction, previously one of the primary means of satisfying facility deficiencies, is now considered the alternative of last resort. The PEO/DRPM/SYSCOM should seek all other means of satisfying a facility requirement before evaluating the use of Military Construction (MILCON). If facility construction is necessary, a MILCON project will be developed by the user activity in coordination with the PEO/DRPM/SYSCOM. In the past, the Navy relied heavily on Military Construction funding to provide major facilities required to support new or modified systems. The planning and programming of a MILCON project can require a five to eight years period prior to IOC in order to be in place by IOC.

If construction or alterations are required and are less than $500,000, the activity or the major claimant may fund it. Projects in excess of $500,000 are classified as Military Construction and require Congressional authorization and funding.

The project must be approved for the Navy's military construction program and be submitted to Congress for approval. The only projects that can be built are those for which the Congress provides authorization and appropriates funds. Since only a limited amount of funding is allocated for military construction, the competition for funding is keen and it is extremely important that project documentation be convincing and clearly and simply state the need for the project.

Because of the long lead times for MILCON, facility requirements must be identified five to eight years prior to the IOC established for the weapons system. As the weapons system mission is being identified, the PEO/DRPM/SYSCOM needs to start developing rough order-of-magnitude costs for facilities required to support the weapons system. As the ILS process unfolds, these estimates of facility requirements and associated costs must be continually refined, ultimately resulting in detailed project documentation and cost estimates.

The PEO/DRPM/SYSCOM is the key to success in this dynamic facilities acquisition process, serving as a catalyst, coordinator and corporate memory to assure timely acquisition, proper mission support, best utilization of available resources and most cost effective solutions. In doing this, the PEO/DRPM/SYSCOM must interface with personnel

from NAVFAC Headquarters, EFDs/As, major claimants, resource sponsors, shore activities and others.

Funding Documentation

If the facility solutions in support of the new or modified systems require funding, then such funding must be included in the LRFS or equivalent budgeting and funding documentation. The budgeting and funding of the facilities, required to support the new or modified system, is the responsibility of the PEO/DRPM/SYSCOM.

Environmental Considerations for Facilities

The Navy continues to stress the importance of environmental management programs to minimize life-cycle costs and protect human health and the environment. Emphasis has shifted away from control of pollutants at the point at which they enter the environment to a pro-active approach of designing out or minimizing all pollution generating processes in existing or planned facilities. The timing of early decisions related to potential environmental impacts must be addressed early in the life of a project. Delaying early decisions and assessment of potential environmental impacts may result in project delays. If the facility solutions require environmental documentation (discussed below), the ILA documentation should include a discussion of the level of documentation required and a timeline indicating that the required environmental documentation will be completed in time to allow the project to proceed. These environmental considerations and documentation form a part of the required programmatic environmental, safety, and health evaluation.

The National Environmental Policy Act (NEPA) affects virtually every proposed action on an activity, including proposals for substantive changes in ongoing actions. NEPA requires all federal agencies to give appropriate pre-decision consideration to environmental effects of proposed actions in their planning and decisions, and to prepare detailed statements regarding such considerations and the resulting recommendations for major federal actions significantly affecting the quality of the human environment. A "major federal action" includes actions with effects that may be major and which are potentially subject to federal control and responsibility. Programs or projects that "significantly affect the environment" could include interference with the reasonable peaceful enjoyment of property or use of property; interference with visual or auditory amenities; limitation on multiple use management programs for an area; danger to the health, safety or welfare of human life; or irreparable harm to animal or plant life in and area.

NEPA is the basic charter for the protection of the environment. It establishes policy, sets goals, and provides means for carrying out environmental policy. The basic tenets of the of NEPA are that: 1) procedures are in place to ensure that environmental information is available to decision makers and citizens before decisions are made; and 2) the process should identify and assess reasonable alternatives to proposed actions to avoid or minimize environmental adverse effects. Under NEPA, a three-tiered approach is taken to assure that pertinent environmental information for major federal actions is available to decision makers and the public. These three levels of documentation are Categorical Exclusions, Environmental Assessments, and Environmental Impact Statements.

Categorical Exclusions: Categorical exclusions are those actions which, after consideration by the Navy, do not have, under normal circumstances, individually or cumulatively, a significant impact on the human environment. Categorical exclusions are applicable to those kinds of military actions which do not affect the quality of the human environment, do not result in significant change from existing conditions at the site of the proposed action, and whose effect is primarily economic or social.

Environmental Assessment (EA)

An EA is an analysis of the potential environmental impact of a proposed action. When the military does not know beforehand whether or not the proposed action will significantly affect the human environment or be controversial with respect to environmental effects, an EA is required. EA content addresses purpose and/or need for proposed action, project description and alternatives, and affected environmental and environmental consequences. Completed EAs are forwarded to OPNAV (N45) for review and a decision to declare either: a "Finding Of No Significant Findings" (FONSI) based on EA results, or preparation of an EIS is necessary. Public notification of the signed FONSI completes the NEPA process.

Environmental Impact Statement (EIS)

The preparation of an EIS provides full and unbiased discussion of significant environmental impacts and informs decision makers and the public of reasonable alternatives which would avoid or minimize adverse impact. The EIS is comprised of a number of steps which must be followed, otherwise public opposition to the proposed action could result in court challenges and delay the project. The EIS process contains specified timetables which must be followed. The public must have the opportunity to comment on the proposed action and its environmental consequences.

Early attention to potential environmental issues is particularly important for projects involving construction of piers of quaywalls, or any waterfront construction, and industrial facilities that may involve complex processes of hazardous/toxic materials subject to regulation by local, state, or federal authorities. The materials regulated may include, but are not limited to, heavy metals, cyanide, complex organics, and discharges which may be in the form of air emissions, solid wastes, or wastewater.

Hazardous Materials/Hazardous Waste (HM/HW) Management

An integral part of the Navy's pollution control strategy is the successful management of hazardous material and hazardous waste at facilities. This strategy is based on a comprehensive program specifically aimed at life-cycle management of hazardous materials and waste. Logisticians play a significant role in the development and implementation of a successful HM/HW management program within the Navy. The facilities impacts caused by HM/HW Management must be clearly presented with the alternatives for resolving the issues discussed. Any recommended solutions must include a discussion of the funding implications and included in the appropriate ILA funding documentation.

The Deputy CNO for Logistics has issued comprehensive policy and requirements (OPNAVINST 5090.1B, CH-1) that establish broad program management guidelines for life-cycle control of Navy-wide HM and HW. This program definition is very specific at the field activity level and clearly spells out the primary responsibilities for the program sponsors, systems commands, and activity commanders. These policy considerations and program goals focus on four principal program management areas--acquisition strategy, material management, personnel training and safety, and waste disposition.

NAVSUP has been tasked to carry out Hazardous Material Control and Management (HMC&M) Program responsibilities and serves as the overall program manager for the supply element of the Navy program, including HM logistics requirements. NAVFAC is tasked to provide technical guidance such as design criteria and specifications for HM and HW storage facilities, as well as issues associated with the siting of such facilities and other regulatory requirements for permits for HW facilities.

Appendix H

SUPPLY SUPPORT

INTRODUCTION

This guide was prepared to assist functional auditors in reviewing and assessing a program's supply support issues. The questions in this guide are not all-inclusive, nor necessarily applicable to all programs. Rather, this guide offers users a relatively thorough set of considerations that are applicable to traditional and non-traditional supply support methods.

This guide is divided into two basic sections. Section I covers traditional supply support issues, and section II addresses those concerns brought about by procurement innovations such as direct vendor delivery (DVD), just-in-time (JIT), non-developmental items (NDI), commercial off-the-shelf (COTS), and contractor logistic support (CLS).

TRADITIONAL SUPPLY SUPPORT

PREFACE

SECNAVINST 4105 and NAVSEA Instruction 4105.1 require that all ACAT programs be assessed to verify the adequacy of Integrated Logistics Support (ILS) prior to each milestone decision and Initial Operating Capability (IOC). Grouped by milestones, this section assists the auditor in assessing critical supply support issues for traditional acquisition programs.

In addition, DOD Regulation 5000.2-R and SECNAVISNST 5000.2B reduce the formal requirement for most standard program plans, i.e. Configuration Management (CM) Plan, Integrated Logistic Support Plan (ILSP), etc.

Program plans belong to the PM and are to be used by the PM to manage program execution throughout the life-cycle of the program. Program plans are a description of the detailed activities necessary to carry out the required strategies. The PM, in coordination with the PEO, determines the type and number of program plans. According to the mentioned DOD regulation and SECNAV instruction, Program plans are not required in support of milestone decisions and shall not be used as milestone documentation or as periodic reports. Exclusions include the Test and Evaluation Master Plan (TEMP), Acquisition plan (AP), Navy Training Plan (NTP), and when required by the Milestone Decision Authority (MDA) the Technology Assessment and Control Plan (TACP).

The PM is still responsible for the programmatic ILS planning requirements. ILA auditors are responsible for insuring that the requirements have been met.

TRADITIONAL SUPPLY SUPPORT MILESTONE CHECKLIST

I. Approval to Begin a New Acquisition Program (Milestone I)

1. When is the projected Material Support Date (MSD)?
2. What are the system readiness objectives and tentative thresholds?3
3. What is the baseline operational scenario?
4. What plans and resources have been identified for support concepts required to meet both peacetime and wartime readiness objectives?
5. What alternative operational and support concepts have been evaluated?
6. Will interim support be required?
7. What supply support requirements are reflected in the LRFS (Logistics Requirements and Funding Summary)?
8. What are the support cost drivers?
9. What are the critical supply support milestones?
10. What unique supply requirements have been identified for the system or its peculiar support equipment?
11. What contractor strategies for supply support have been considered? Has the duration and extent been defined? Are requirements budgeted?
12. When will supply support transition from the contractor to organic support?
13. Per OPNAVINST 4423.A, what model (i.e. ACIM, TIGER, etc.) will be used for Readiness Based Sparing to compute spares requirements?

II. Approval to Enter Engineering and Manufacturing Development (Milestone II)

1. Has a Baseline Comparison Study of predecessor or similar systems/equipment been conducted to evaluate alternative supply support concepts?
2. When are the agreed to Material Support Date (MSD) and Navy Support Date (NSD)?
3. When will the product baseline be established?
4. What are the supply support milestones to meet the MSD?
5. Has a Master Acquisition Program Plan (MAPP) or Integrated Logistics Support Plan (ILSP) been developed?
6. If this is a multi-service program, who is the Primary Inventory Control Activity (PICA)? Secondary Inventory Control Activity (SICA)?
7. Who are the supply support members of the ILSMT?
8. What MOAs have been established?

9. When will full Navy supply support be in place?
10. How will supply support requirements and schedules be included in the Engineering and Manufacturing Development (E&MD) contract?
11. When will a Phased Support Plan, describing the transition from contractor to Navy support, be developed?
12. How is tailored Provisioning Technical Documentation (PTD) being ordered in the E&MD contract?
13. What requirements are included in the LRFS for spares, PTD, etc?
14. Will the same provisioning requirements (PTD) be applied equally to the system/equipment, and associated support and test equipment?
15. Will provisioning efforts and documentation accommodate supply support needs of the immediate and wholesale levels of supply as well as consumer level?
16. Are reprocurement drawings required?
17. Will copies of the drawings be provided to the Program Support Inventory Control Point (PSICP)?
18. What supply support requirements have been identified for training equipment, support equipment, and test equipment?
19. When will Supply Support Management Plans (SSMPs) be developed for training equipment, support equipment, and test equipment?
20. What supply support requirements are identified for support of test activities?
21. What PHS&T requirements for spares have been identified?
22. How will supply support requirements be revised due to program or configuration changes? Has a Configuration Control Board process been established?
23. Does the program plan include Ao requirements for the system/equipment?
24. Is Spares Acquisition Integrated with Production (SAIP) planned?
25. What activity has been designated to determine on-board supply support range and depth requirements?
26. How will the contract accommodate slippages in MSD (Material Support date)?
27. Has the program Test and Evaluation Master Plan (TEMP) been completed?

III. Production or Fielding/Deployment Approval (Milestone III)

1. Is there a maintenance option for repair parts in the contract?
2. When is the Material Support Date (MSD)?
3. What is the impact on spare and repair parts allowances as the result of experience from testing?
4. Are additional spares needed? Has the requirement been budgeted?
5. What supply support deficiencies were identified during testing?
6. What course of action has been identified to correct the problems?
7. Where will spare parts be prepositioned?
8. If repair is planned at a commercial Depot Overhaul Point (DOP), what procedures are established to cover inventory control, method of replenishment, asset visibility, and financial accountability?
9. Is interim (contractor) support required?
10. Are supply support procurement requirements based on the current baseline and an approved maintenance plan?
11. Have all required interservice agreements been coordinated?
12. Has a BOA been established with the contractor?
13. How will usage and failure data be obtained?
14. Has the SSMP been updated to reflect current program requirements?

IV. Pre-IOC issues

1. Is interim contractor supply support fully funded?
2. Is there an adequate, formalized plan for transitioning an equipment from contractor supply support to full Navy supply support?
3. Have adequate funds been budgeted to support both interim and Navy support requirements?
4. Does the ULSS (User Logistics Support Summary) indicate:
   a. A list of APLs for each equipment?
   b. Turn-in procedures for repairables?
   c. Requisitioning procedures?
   d. POCs for the supply officer to seek assistance from when supply problems occur?
5. Has a reprocurement drawing package been delivered and accepted by the Navy?
6. Are there service life limited components in the system/equipment? If so, what method will be used to compute future spares requirements for these items?

NON-TRADITIONAL SUPPLY SUPPORT

PREFACE

"[Government procurement] is being overhauled, with huge help from Congress in the form of the Federal Acquisition Streamlining Act of 1994…" (Businesslike Government: Lessons Learned from America's Best Companies, National Performance Review (NPR), 1997). The NPR claims $12 billion in savings from procurement reforms (NPR 49). The defense workforce's innovations and teamwork have driven these improvements found in the acquisition of new affordable defense programs. DOD Directive 5000.1 emphasizes guiding principles like program tailoring, innovative practices, teamwork and continuous improvement (1996, p.5 of Executive Summary). Under Secretary of Defense (Acquisition & Technology) Paul Kaminski also writes, "…We can free managers to exercise sound judgement when structuring and executing defense acquisition programs" (1996, p.1 of Executive Summary).

This new approach to acquiring defense systems dictates a less-structured format for ILA checklists. "MDAs should strive to tailor most aspects of the acquisition process, including program documentation, acquisition phases, and the timing, scope, and level of decision reviews" (p.2 of Executive Summary). To assist managers in the innovative worlds of DVD, NDI, COTS, JIT, CLS, and others, this checklist is subdivided into topical categories, rather than by milestones.

I. ASSET DISTRIBUTION AND TRANSPORTATION

1. Warehousing

Who will be responsible for warehousing - the contractor or the government?

2. Transportation

Who will be responsible for transportation - the contractor of the government? Is the use of premium transportation envisioned? In the case of repairables, who is responsible for retrograde transportation? Is there a requirement for retrograde to arrive at the contractor in X number of days?

3. Packaging, Preservation and Marking

Will commercial standards replace military packaging? How is plastic and hazardous material addressed?

II. ASSET MANAGEMENT

1. Asset Reporting

What system will be used to report assets? Will asset visibility be fully maintained on NAVICP files? Will all condition code changes be reported?

2. Requisition Processing

Will all requisitions pass through the NAVICP for referral to the contractor? Will the ICP maintain the BBs (backorders)? Who will be responsible to provide status to the customer? Who replies to follow-ups? If specific requisition exchange times are indicated, when does the clock start and stop.

3. Demand/Sales

Will all demand and sales be recorded by the ICP for both consumables and repairables?

4. Wholesale Replenishment

Who makes the decision to procure additional inventory? Who makes the decision on the quantity to be procured? Who funds the replenishment? Are repairables and consumables handled differently, i.e. delegate full authority to the contractor for consumables, yet retain decision making for repairables? Does it make sense to transfer consumable items to DLA (Defense Logistics Agency), that are part of an innovative support strategy, such as DVD, JITs, etc?

5. Retail Requirements

Will the ICP retain full responsibility for allowance development?

6. Contractor Pools

Will an inventory reserve, or pool, be required by the contractor to permit satisfaction of customer requisitions within the agreed to timeframes? Does the ICP initiate the pool through the redistribution of wholesale assets? Does augmentation to the pool become the sole responsibility of the contractor?

7. Asset Ownership

Who owns the wholesale inventory, the Navy or the contractor?

8. Stratification

Is this function still performed by the ICP for the items managed by the contractor?

9. Survey/Disposal Authority

Does the Navy retain responsibility for survey/disposal decisions?

10. Maintenance Plans

Will the current maintenance plan and designated levels of maintenance be retained? If the maintenance plan is changed to eliminate the T level for example, will the retail

requirements remain unchanged? If the maintenance plan changes, who is responsible for update of the technical data and manuals?

11. Configuration Management

Will the contractor have authority to make configuration changes outside of the Configuration Control Board process?

12. Specifications and Standards

Will the contract permit utilization of commercial specifications and standards for asset replenishment or repair? Will performance standards vice "build to print" be authorized?

13. Repair

Will an IRAN (inspect/repair as necessary) or overhaul concept be specified in the contract? Is there an impact on organic "core" workload? Is the use of FAA (Federal Aviation Administration) approved sources a consideration?

14. Residual Navy Inventory

What provisions will be included to require contractor drawdown of existing government inventory, including DLA managed items?

15. Surge Provisions

How does the contract address support requirements in the event that the Navy's operational requirements would be accelerated?

16. DLA Involvement - Repair Parts

Does the contract allow access to DLA inventory?

17. Spares Modeling

Has a DVD/CLS spares model been used to compare to traditional support?

18. Alternative Logistics

Has the NAVSUP ALSO (Alternative Logistics Support office) team assessed the program for possible alternative support options?

19. Diminishing Manufacturing Sources and Material Shortages (DMSMS)

Has a DMSMS impact been assessed and evaluated by the Navy DMSMS Program Manager? What DMSMS-identified parts have been included in the system?

III. CONTRACT MAINTENANCE

A. PRICING AND PAYMENTS

1. Exchange of Non-excess Personal Property

DOD Material Management Regulation (DOD 4140.1-R), par. 6.B, endorses the exchange of assets as partial payment for similar items performing similar functions when to the Government's economic advantage. Exchange of "non-excess personal property" (spare parts still in Navy inventory accounts) is also encouraged by SECNAV (RD&A) Memorandum for Program Executive Officers, Direct Reporting Program Managers, and Heads of Contracting Activities of 29 Jul 97, which emphasizes the benefit of "return on its past investment as well as significant savings in disposition costs". As "it is good business sense to consider every alternative in periods of limited fund availability", exchange as partial payment should be included in the range of contracting options.

2. Incentives/Penalties

Will the contract carry provisions for incentives and/or penalties based upon performance to the stated terms and conditions?

3. Pricing Structure

Is the establishment of traditional unit prices the best way to approach alternate support contracts? If not, what alternatives are available and which are most advantageous in the particular instance?

4. Payment Structure

If unit prices are not the basis for payment, has there been an analysis of the effects a periodical payment structure will have on budget execution plans? Has the use of commercial-type payment systems been examined for applicability?

5. Over and Above Costs

How are Over and Above repair (that is, deviations to repair quantities on contract) or warranty scenarios going to be defined, addressed and administered? Is there going to be any other types of contract price adjustments?

B. PERFORMANCE

1. Reliability/Warranty

Assess current system performance. How does actual MTBF compare to planned MTBF? Will the contract proposal include a requirement to improve system reliability? Will the concepts of technological insertion or embedded LECPs be considered? Will the contractor warrant this reliability?

2. Contractor Performance

What is the basis for the contract? For consumables, do we expect all customer requisitions to be satisfied within 24-48 hours? For repairables, do we want a

guaranteed RTAT or satisfaction of customer requisitions within 24-48 hours or both? As alternative, should "Power by the Hour" or overall aircraft or system availability be considered as the more effective contractor performance options?

3. Performance Monitoring

What is the plan to monitor contractor performance once the contract is in place? Do we have the data or will the Administrating Contracting Officer (ACO) be tasked?

4. "Escape" Clauses

If contractual arrangements prove non-effective, what processes are defined to efficiently return responsibility to the Navy?

5. Response Time

What are the specified parameters that the contractor must meet? Are these parameters definitive so that performance can be measured?

C. CONVENTIONAL

1. Foreign Military Sales

Has the potential for partnering with FMS been considered in all decisions?

2. Contract Type

Is a contract type other than firm fixed price being contemplated? Was higher level contracting officer review and approval obtained prior to proceeding?

3. Waivers Required

Are waivers necessary? Who has approval authority?

4. Competition

Is there sufficient supporting data available to obtain the appropriate Justification and Approval (J & A) for other than full and open competition?

5. SBA Participation

Has the Small Business Administration (SBA) and/or the activity SADBUS been participating with the team during the acquisition planning phase of contract development? Can Small Business Subcontracting Plans be adequately developed, negotiated and approved?

D. PERIPHERAL

1. PICA/SICA Issues

Are other services participating?

2. Cost/Benefit Analysis

How are all costs captured, i.e. DLA warehousing, receipt and issues, transportation, ICP support, etc.? This information is essential to judging the cost effectiveness of the contractor proposal. Does the contractor proposal reduce Navy inventory? Does it reduce infrastructure costs? Does it save ICP resources?

3. Asset Type (Piece Parts/Repairables)

Does the contract address both types? Are there different guidelines for handling each type?

4. Transition Planning

How are Navy assets passed to the contractor? If assets have been passed how does the "Escape" clause handle their return?

E. ELECTRONIC DATA

1. Data Rights

How does the contract address this when technology insertion is authorized? What happens under the "Escape" provision?

2. EC/EDI (Electronic Commerce/Electronic Date Interchange)

Will the contract capitalize on expanded use of EC/EDI to do business?

3. Data Base Access

What access will the contractor have to NAVICP information (i.e. Weapon System File (WSF), drawings, etc.)?

Appendix I

TOTAL OWNERSHIP COST (TOC) REDUCTION

A. Has the program created a TOC conscious environment?

1. Is there a documented TOC strategy/plan?
2. Is there a TOC reduction strategy/plan?
3. Is there written TOC guidance?
4. Has the requirements office been provided the TOC strategy and guidance?
5. Is there a TOC handbook?
6. Is there a TOC data dictionary?
7. Is there a TOC reduction training/education program?
8. Have personnel been educated on TOC?
9. Has the education/training been active since the last assessment?
10. Have end users been provided the TOC strategy and guidance?
11. Is there a formal record of TOC lessons learned?
12. Have lessons learned been collected from and distributed to all program participants (contractors, participating managers, field activities, end users)?
13. Is there a R-TOC incentive program?
14. Have end user's needs been explored and identified?
15. What steps have been taken to increase the end users TOC awareness?
16. Was cost as an independent variable (CAIV) used to effect user needs?
17. Have user needs been integrated with cost as an independent variable (CAIV) based performance objectives?
18. Has cost reduction been addressed?
19. Is the cost reduction effort incorporated into the program decision process?
20. Has R-TOC been incorporated in the program?
21. Are there written business rules?
22. Are TOC business procedures and rules established for the program?
23. Have TOC acquisition deltas been clarified?
24. Is R-TOC integrated into the program's core business processes?
25. Is funding programmed to sustain the education/training program?
26. Is funding programmed to sustain the collection and dissemination of lessons learned?
27. Is there a supportability concept?
28. Has TOC been integrated into the support concept?

29. Has the Program Manager developed a life cycle product support management plan?
30. Have supportability and interoperability needs been identified?
31. Is the program structured to support TOC reduction?
32. Are there TOC contract, project directive, and field activity tasking clauses?
33. Is there a risk management plan?
34. Are Integrated Baseline Reviews integrated in the risk management plan?
35. Is there a standardization plan?
36. Are there R-TOC representatives on each IPT?
37. Are the results of the R-TOC program being promulgated within and outside the program?
38. Is there a TOC implementation process?
39. Is there continuing solicitation of user input?
40. Can the identity of personnel performing TOC analyses be determined?
41. Are there TOC design methods?
42. Has the material selection process been modeled?
43. Is there a TOC candidate list?

B. Have TOC baselines and reduction targets been determined?

1. Has a TOC baseline been developed?
2. Is there a baseline for each performer?
3. Is there a standard baseline data element dictionary?
4. Has source data been identified and used in developing the baseline?
5. Has life cycle source data been made available?
6. Is the source data accessible?
7. Is the baseline source data adequate?
8. Have baselines been validated?
9. Has a process to handle baseline changes been established?
10. Has a process of recording and maintaining baseline changes been established?
11. Has source data for the baseline been established?
12. Are there baseline validation procedures in place?
13. Are there baselines for each alternative under consideration?
14. Is there a baseline change control process?
15. Have the end users identified TOC drivers of the current system?
16. Does the baseline change control process include an audit trail for tracking changes?

17. Is the TOC baseline linked to the program's product structure/work breakdown structure?
18. Is the baseline being updated with contract, project directive, and field activity related cost data?
19. Are there R-TOC targets?
20. Have R-TOC goals/target been established for each area within the program?
21. Are there definitive R-TOC targets?
22. Have R-TOC targets been identified?
23. Have potential R-TOC opportunities been identified?
24. Are R-TOC targets the focus area of the program's R-TOC efforts?
25. Is there a Program Manager's TOC Estimate?
26. Is the Program manager's TOC estimate being maintained?
27. Is the Program Manager's baseline being maintained?
28. Is funding programmed to update and maintain the TOC baseline and the Program Manager's TOC estimate?
29. Have key objectives in developing a life cycle product support management plan been identified?
30. Have life cycle support objectives been identified?

C. Has the program established R-TOC performance metrics?

1. Is there a process/procedure for establishing R-TOC performance metrics?
2. Is there a standard baseline metrics library?
3. Are there defined TOC metrics?
4. Have R-TOC performance metrics been allocated throughout the organization?
5. Have TOC goals and objectives been identified?
6. Is there a documented set of quantified TOC goals and objectives?
7. Have potential best value goals and priorities been determined?
8. Have best value goals and priorities been established based on system's life cycle?
9. Has a TOC threshold been developed?
10. Is there a TOC threshold?
11. Have TOC drivers been identified?
12. Have reliability, availability, and maintainability requirements been developed based on Operational Requirements Decisions and Total Ownership Cost considerations?

D. Has the program established a TOC Toolbox?

1. Are research tools available?
2. Have research tools been identified?
3. Are documentation tools available?
4. Have documentation tools been identified?
5. Are accounting and monitoring tools available?
6. Are decision support, trade-off, and cost estimating and modeling tools available?
7. Have accounting and monitoring tools been identified?
8. Have decision support, trade-off, and cost estimating and modeling tools been identified?
9. Have cost/response curve models (CAIV item) been identified?
10. Have performance estimating relationship models (CAIV item) been identified?
11. Have cost estimating relationship models been identified?
12. Is there record of tool and model utilization?
13. Have additional tools been added to the toolsets since the last assessment?
14. Are TOC tools and models being developed?
15. Have cost/benefit tools been developed?
16. Have cost/risk analysis tools been developed?
17. Has user input been solicited to assist in tool selection?
18. Is there continuing solicitation of user input for tool selection?
19. Are tools and models integrated with one another?
20. Are TOC tools and models being used?
21. Have cost/benefit tools been used?
22. Have cost/risk analysis tools been used?
23. Has funding been programmed to maintain the toolbox?
24. Have tools and models been updated to support the operations and support phase of the program's life cycle?
25. Have TOC model requirements that will be most beneficial to the incorporating of R-TOC into the program been identified?
26. Have TOC modeling requirements been determined?
27. Have performance-estimating relationships (CAIV item) been developed?
28. Have cost estimating relationships been developed?
29. Have cost/response curves (CAIV item) been developed?
30. Is there an ongoing effort to evaluate and select tools and models?

E. Has the program analyzed and prioritized R-TOC initiatives?

1. Have cost drivers be determined?
2. Have TOC 'best value' solutions been identified?
3. Have solutions for cost-effectiveness been identified?
4. Has the most cost-effective solution for the system's life cycle been given priority consideration?
5. Have system integration initiatives been pursued to make total system performance optimal?
6. Have cost simulations been performed for R-TOC initiatives?
7. Are there procedures in place to assess TOC impact on change/modification design and development?
8. Are there procedures in place to cause a TOC evaluation of system and equipment design changes?
9. Is funding programmed to sustain the analyzing and prioritization of program TOC initiatives?
10. What R-TOC initiatives have been funded?
11. Is there a TOC estimating procedure?
12. Have cost estimating relationships been used?
13. Has a TOC estimate been made?
14. Have estimates been developed for each R-TOC initiative?
15. Have preliminary TOC analyses been performed?
16. Have potential analysis methodology to enhance R-TOC been identified?
17. Are detailed R-TOC analyses being conducted?
18. Is there a record of the evaluation of R-TOC opportunities?
19. Has an R-TOC investment analysis process/procedure been developed?
20. Is there an R-TOC investment analysis process/procedure in use?
21. Has cost been used as an independent variable?
22. Have cost/response curves (CAIV item) been used?
23. Have cost/performance trades (CAIV item) been conducted?
24. Have trade-off criteria been defined?
25. Has a CAIV/affordability assessment been conducted?
26. Have supportability analyses been conducted?
27. Have the results of supportability analyses been implemented?
28. Is data from supportability analyses being used in other analyses?
29. Do design and development decisions reflect R-TOC considerations?
30. Does system and equipment design reflect R-TOC considerations?
31. Has cost reduction been a prime consideration throughout the analysis process?

F. Has the program assess its R-TOC performance?

1. Have any cost and operational effectiveness analyses that can benefit the program been identified?
2. Have cost operational effectiveness analyses (COEA) been performed?
3. Are actual costs being collected?
4. Do operations and support cost collection procedures and processes differentiate among design deltas from different production runs?
5. Are quality assurance processes being used to determine modeling effectiveness?
6. Do operations and support cost collection procedures and processes permit comparisons between like employment scenarios such as between hulls, between squadrons, between groups, between type commands, etc.?
7. Are there procedures and processes in place to validate operations and support costs?
8. Are actual costs being validated?
9. Have R-TOC opportunities been implemented?
10. Has life cycle source data been used to assess program R-TOC performance?
11. Have life cycle TOC drivers been identified?
12. Has the Program Manager developed realistic program schedules, long-range investment plans, and affordability assessments?
13. Are there quality assurance parameters for the TOC process?
14. Is there a list of TOC metrics that identifies the periodicity they are to be measured?
15. Is there a record of results related to the TOC metrics?
16. Is metric data being recorded?
17. Is funding programmed to continue the recording of metric data?
18. Is the TOC initiative implementation process integrated with the program's change control process?
19. Are procedures in place to apply TOC processes to life cycle changes?
20. Are there procedures and processes in place to collect operations and support actual costs?
21. Is progress toward R-TOC goals being evaluated?
22. Are there procedures in place to assess the TOC impact of technology insertion?
23. Are funds programmed to permit the program to continue to assess its TOC performance?

Appendix J

LESSONS LEARNED PROGRAM

While this handbook serves as a guide for the planning, conduct and documentation of LAs, it can not address every situation which will be encountered by the acquisition community. Therefore, to provide "lessons learned" for future participants, PEOs, DRPMs, SYSCOM Commanders, team leaders / members and etcetera are requested to provide beneficial suggestions / lessons learned to CNO (N43) who will maintain the lessons learned program on the N43 home page on the internet (http://www.n4.opnav.navy.mil). Please be specific and complete.

No.	Acquisition Executive	LA Phase	Lesson / Suggestion
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

Appendix K

LOGISTICS ASSESSMENT HANDBOOK
FEEDBACK QUESTIONNAIRE

We have striven to make this handbook a useful product. It is based on current policy requirements, past experience, and recommendations from many sources. We request your assistance in improving this document to make it more helpful in the future. Please send completed lessons learned or questionnaires to:

MAIL: Chief of Naval Operations
Industrial Capability, Maintenance Policy and Acquisition Logistics Policy Division (N43)
2000 Navy Pentagon
Washington, DC 20350-2000
GUARDMAIL: OPNAV Code 432, Presidential Towers (National Center 1), Room 6600
PHONE: (703) 601-1677
TELEFAX: (703) 604-0038/9
E-MAIL: smith.jim@hq.navy.mil

1. Is this handbook responsive to your needs and those of your organization? If not, please recommend alternatives.

2. What additional topics should be addressed in the handbook?

3. Is there any material in the handbook that should be deleted?

4. How can this handbook be improved?

5. Any other beneficial comments on the Logistics Assessment process or handbook?

Appendix L

ACRONYMS AND ABBREVIATIONS

The following acronyms and abbreviations are used by system acquisition logisticians and are contained in this handbook.

ACAT	Acquisition Category
APB	Acquisition Program Brief
APL	Allowance Parts List
ARB	Acquisition Review Board
ARR	Allowance Requirements Registers
ASN (I&E)	Assistant Secretary of the Navy (Installations and Environment)
ASN (M&RA)	Assistant Secretary of the Navy (Manpower and Reserve Affairs)
ASN (RD&A)	Assistant Secretary of the Navy (Research, Development and Acquisition)
ASN (RD&A)(ABM-PR)	Assistant Secretary of the Navy (Research, Development and Acquisition)(Acquisition Business Management - Policy and Resources)
ASN (RD&A)(LOG)	Assistant Secretary of the Navy (Research, Development and Acquisition) (Logistics)
ASN (RD&A)(PI)	Assistant Secretary of the Navy (Research, Development and Acquisition) (Product Integrity)
ASN (RD&A)(PPR)	Assistant Secretary of the Navy (Research, Development and Acquisition) (Planning, Programming, Resources)
AVCAL	Aviation Coordinated Allowance List
BIT	Built-in Test
BITE	Built-in Test Equipment
CALS	Continuous Acquisition and Life-cycle Support
CDRL	Contract Data Requirements List
CHNAVMAT	Chief of Naval Material
CMC	Commandant of the Marine Corps
CNO	Chief of Naval Operations
COMOPTEVFOR	Commander, Operational Test and Evaluation Force
COSAL	Coordinated Shipboard Allowance List
COTS	Commercial Off The Shelf
CPM	Critical Path Method
CRLCMP	Computer Resources Life Cycle Management Plan
DCNO	Deputy, Chief of Naval Operations
DCNO (L)	Deputy, Chief of Naval Operations (Logistics)
DOD	Department of Defense
DON	Department of the Navy
DRPM	Direct Reporting Program Manager
DT / OT	Developmental Test / Operational Test
FOC	Full Operational Capability
FRACAS	Failure Reporting And Corrective Action System
ILA	Independent Logistics Assessment
ILS	Integrated Logistics Support
ILSM	Integrated Logistics Support Manager
LSMT	Integrated Logistics Support Management Team
ILSP	Integrated Logistics Support Plan

IOC	Initial Operational Capability
IPT	Integrated Product Team
LA	Logistics Assessment
LCC	Life Cycle Cost
LRG	Logistics Review Group
LRIP	Limited Rate Initial Production
LRFS	Logistics Requirements and Funding Summary
MAPP	Master Acquisition Program Plan
MDA	Milestone Decision Authority
MIP	Maintenance Index Pages
MRC	Maintenance Requirements Card
MSDS	Material Safety Data Sheets
MTBF	Mean Time Between Failure
MTTR	Mean Time To Repair
NALCOMIS	Naval Aviation Logistics Command Management Information System
NAVAIR	Naval Air
NAVFACENGCOM	Naval Facility Engineering Command
NAVMAT	Naval Material
NAVSAFECEN	Naval Safety Center
NAVSUPSYSCOM	Naval Supply Systems Command
NDI	Non-Developmental Item
NTSP	Naval Training System Plan
NWAS	Naval Warfare Assessment Station
OPEVAL	Operational Evaluation
ORD	Operational Requirement Document
P^3I	Pre-Planned Product Improvement
PDM	Program Decision Meeting
PEO	Program Executive Officer
PM	Program Manager
PMO	Program Manager Office
PMS	Planned Maintenance System
POA&M	Plan of Actions and Milestones
RFP	Release For Proposal
RM&A	Reliability, Maintainability and Availability
R,M&QA	Reliability, Maintainability and Quality Assurance
RTOC	Reduction of Total Ownership Costs
SAMP	Single (or Simplified) Acquisition Management Plan
SCLSI	Ship's Configuration and Logistics Support Index
SE	Support Equipment
SECNAV	Secretary of the Navy
SECNAVINST	Secretary of the Navy Instruction
SEMP	Systems Engineering Management Plan
SNAP	Ship's Non-tactical Automatic Data Processing Program
SOO	Statement Of Objectives
SOW	Statement of Work
SPAWAR	Space and Naval Warfare
SYSCOM	Systems Command
TEMP	Test and Evaluation Master Plan
ULSS	User's Logistics Support Summary
WSF	Weapons System File