Addendum

1. ***Introduction***. This Addendum for Provisioning Technical Documentation (PTD) Requirements is provided for use with the basic provisioning specifications of the contract and contains information tailored to the acquisition PTD to satisfy specific Navy requirements. This addendum takes precedence over any other documentation related to PTD requirements. Any questions regarding this Addendum for PTD Requirements should be referred to the cognizant NAVSEA Technical Support Activity (TSA) for resolution.

2. ***Provisioning Technical Documentation (PTD).*** PTD is required for all systems or equipment acquired for Navy use that are considered APL-Worthy according to the guidance provided in Appendix F.

3. ***PTD Development and Delivery***. Delivery of PTD must be in a format and media compatible with the government's Interactive Computer Aided Provisioning System (ICAPS) as specified in the NAVSEA's LMI Worksheet Attachment 1. ICAPS was developed by the government for the purpose of developing and transmitting provisioning related data. It is available free of charge to contractor personnel as well as government agencies. Contractors are encouraged to take advantage of the opportunity to utilize this software which would eliminate any concern about compatibility of the contractor's system with ICAPS. Two versions of ICAPS are available. PC-WIN has incorporated the ability to produce formatted outputs that facilitate transmission of data from one provisioning activity to another. ICAPS Client Server (ICAPS C/S) is a real-time database that enables all provisioning related activities to access and manipulate the data in the database. Although use of ICAPS simplifies the verification of the data development and submission process, the contractor has the latitude to utilize any system for development of the data.

4. ***Engineering Data for Provisioning.*** EDFP is required for all systems and equipment that are acquired for Navy use and for which PTD is acquired. EDFP is the data acquired by contract to support LMI supportability analysis. It is the technical data which provides definitive identification of dimensional, material, mechanical, electrical, or other characteristics adequate for provisioning of the support items of the end article(s) on contract. EDFP consists of but is not limited to data such as specifications, standards, drawings, photographs, sketches and descriptions, and the necessary assembly and general arrangement drawings, schematics, drawings, schematic diagrams, wiring and cable diagrams, etc. This data is necessary for the assignment of Source, Maintenance, and Recoverability (SMR) codes to assignment of Item Management Codes, prevention of proliferation of identical items in the Government inventory, maintenance decisions, and item identification necessary in the assignment of a National Stock Number (NSN).

   EDFP is used to accomplish the provisioning process and is required to perform provisioning when MIL- T-31000 is not on contract. It is important to emphasize that DOD policy is to use the existing Technical Data Package MIL-T-31000 contract requirements, *if part of the contract,* to support the provisioning process. Generally, this can be done by acquiring copies of products being developed for the MIL-T-31000 DIDs (DI-DRPR-81000 or DI-DRPR-81003) at the time of the provisioning events for cost of reproduction and delivery without regard to completeness of the drawing. EDFP shall be provided from the Technical Data Package CDRLs for DIDs DI-DRPR-81000 or DI-DRPR-81003 tailored to support the provisioning process and delivered concurrent with PTD. However, if

CDRLs for these two DIDs are *not* part of the contract, the Contractor shall provide the EDFP in accordance with CDRL(s) for DID DI-ALSS-81530. EDFP shall not be provided when the item is identified in the Defense Integrated Data System with a type item identification of 1, 1A (K), or 1B (L) or (3) the item is listed as a reference item (subsequent appearance of an item on a parts list).

5. ***PTD Submission Schedules***. PTD will be delivered as specified for the following commodity types.

Small Boats and Crafts

For mission critical systems and equipment requiring LMI supportability analysis, PTD is due to the Government 180 days after release of the purchase order for delivery or fabrication.

For systems and equipment not requiring LMI supportability analysis, PTD is due 60 days after release of the purchase order for delivery or fabrication.

PTD submissions shall be entered into a configuration database in accordance with local procedures.

Shipbuilding and Conversion

A PTD Submission Schedule (PTDSS) shall be submitted in accordance with the following guidelines. For those systems and equipment requiring LMI supportability analysis, PTD is due to the Government 180 days after release of the purchase order for manufacture; for those not requiring LMI supportability analysis, PTD is due 60 days after release of the purchase order for manufacture. After consideration of these PTD submission requirements, the contractor shall develop a PTD Submission Schedule to comply with the criteria set forth as follows:

PTD Due Date	**New Construction Over 36 Months***		**New Construction Less Than 36 Months***		**Conversion Activation Modernization**
	Lead Ship	**Follow Ship**	**Lead Ship**	**Follow Ship**	
30 months prior to ship delivery	60%	70%	N/A	N/A	
24 months prior to ship delivery	80%	90%	40%	50%	
18 months prior to ship delivery	90%	95%	60%	70%	
4 months prior to load COSAL cutoff	100%	100%	100%	100%	100%

* This refers to the length of the construction period. The construction period extends from date of construction contract award to contract delivery date.

The PTD Submission Schedule shall, at a minimum, consist of a graph developed from the ratio of anticipated monthly PTD submissions for the acquisition. This graph shall be plotted across a timeline depicting the length of construction period in months. PTD submissions shall be entered into a configuration database by the contractor, in accordance with local procedures, for monitoring.

Ship Overhaul and Availability Contracts

PTD is required as a separate line item in the basic contract and shall be delivered to the Government within sixty (60) days after release of each equipment purchase order for delivery or fabrication.

6. ***PTD Sequencing***. Individual Provisioning List Item Sequence Numbers (PLISNs) shall be sequenced by one of the following methods:

    a. Electronic Systems and Equipment. PTD for electronic systems and equipment shall be sequenced by reference designation.

    b. Non-electronic Systems and Equipment. PTD for non-electronic systems and equipment shall be sequenced by indenture code.

    c. Non-electronic Systems and Equipment having Electronic Components that are Designed with Reference Designations. Any non-electronic systems or equipment containing electronic components shall be sequenced by indenture code; however, the PTD for the electronic components in these systems or equipment shall be sequenced by reference designation.

7. ***Component Identification Data.*** Component Identification Data (CID) shall be submitted for all systems and equipment and shall be delivered concurrently with every submittal of Data Product Deliverable. CID shall be prepared in accordance with the SOW, LMI Worksheet and LMI Worksheet Attachment 2 supplemental requirements for all configuration items that comprise one of the following criteria. Questions concerning applicability of this requirement shall be directed to the TSA at the Provisioning Guidance Conference (PGC) or prior to delivery of the PTD.

    a. CID for Provisioning Header Data. CID (Sections A, B, C and D of LMI Worksheet Attachment 2) shall be submitted for each PCCN for every provisioning project. CID for Provisioning Header Data is required for each PTD/PPL, SLPPL/PPL, DCN/PPL developed (see paragraphs 2, 8, and 15). This data shall provide sufficient end item information to identify the system or equipment, applicable contract, and the planned installations.

    b. CID for Statement of Prior Submission (SPS). The Contractor will submit SPS certifying that PTD which will satisfy the PTD requirements of this contract has been previously furnished to the Government and has been approved. To satisfy the data and delivery requirements of SPS for GFE and CFE, the Contractor shall submit CID (Sections A, B, C, D and E of LMI Worksheet Attachment 2). The SPS shall apply to the equipment or end item. The SPS will provide total identification of a system or equipment, as well as the procurement document number under which PTD was previously submitted.

    c CID for Advance Repairable Identification Code (RIC). CID (Sections A, B, C and D of LMI Worksheet Attachment 2) is required to have an Advance RIC assigned by the Government. See

the SOW for specific data requirements for the Characteristics Data field found in Section B of LMI Worksheet Attachment 2. The need for Advance RICs will be determined by the Government and guidance will be provided to the contractor.

8. ***Ship Level Provisioning Parts List (SLPPL).*** Provisioning Parts List (PPL) shall be prepared to the ship level. A SLPPL shall contain miscellaneous parts and items that are not included in individual equipment or component (unit) provisioning data or Common and Bulk Items List (CBIL). SLPPL items are not associated with a specific parent system or equipment; however, they can be related to an overall ship system and they are used to develop the 89000 Series APLs. All items part of SLPPL shall be segregated by their application to basic ship functions as identified by the following Ship Work Breakdown Structure (SWBS):

SWBS Code	Functional Title
100	Hull Structure
200	Propulsion Plant
300	Electric Plant
400	Command and Surveillance
500	Auxiliary Systems
600	Outfit and Furnishings
700	Armament
800	Integration/Engineering
900	Ship Assembly and Support Services

At a minimum, a separate SLPPL shall be prepared for each SWBS code listed above. An item having multiple applications shall be listed in each SLPPL for each ship level SWBS code in which it is used. The requirement for a SLPPL applies to New Construction, Availability, and Boat and Craft contracts only.

9. ***System Configuration Provisioning List (SCPL).*** The SCPL establishes a "family tree" relationship of components to the end item (system). This is required for GF end items (systems) only. The GF SCPL will detail each separate appearance of the component level items that comprise the end item (system) and will also list all attaching parts used to integrate the component level items into the end item (system). These attaching parts should not be included in the individual component level item PPL.

10. ***Source, Maintenance and Recoverability (SMR) Code***. When tasked to assign SMR codes, the contractor shall develop them in accordance with the description and application of the joint services uniform SMR codes for Navy use contained in Appendix A to reflect the Government approved maintenance philosophy.

11. ***Technical Replacement Factors (TRFs)***. The contractor shall compute a TRF. Appendix B provides recommended guidelines for this computation. TRFs shall be reported in the Maintenance Replacement Rate I (MRRI) block according to the Navy's required provisioning data product format (see LMI Worksheet Attachment 1).

12. ***Essentiality Codes (ECs)***. The contractor shall assign ECs. Appendix C provides recommended guidelines for this assignment process. ECs shall be reported in the Essentiality Code (EC) block according to the Navy's required provisioning data format (see LMI Worksheet Attachment 1).

13. ***Reference Designators***. For end items requiring a top-down breakdown by means of reference designation, the contractor shall assign reference designators. Appendix D provides an example of a breakdown in an electronic equipment, and illustrates the relationships between Reference Designation, Quantity per Assembly, Quantity per End Item, and Part Number or Reference Number.

14. ***Indenture Code***. The contractor shall assign indenture codes for all provisioning packages. Appendix E provides an example of a breakdown in a HM&E equipment, and illustrates the relationship between Indenture Code, Quantity per Assembly, Quantity per End Item, and Part Number or Reference Number.

15. ***Design Change Notice (DCN)***. The contractor shall notify the TSA of all changes, whether of a production or modification type, which are approved for incorporation into the end item and which modify, add to, delete, or supersede parts in the end item or its supporting equipment. When an approved engineering design or production change requires new identification as specified in DoD-STD-00100D (AR), paragraph 402.14, the contractor shall submit PTD revisions via DCNs in accordance with the following:

    a. When the approved change affects interchangeable repairable assemblies so as to introduce non-interchangeable parts, identify the part number before the change as a deletion and the part number after the change as an addition.

    b. Change and document the part number of the next higher assembly, and those of all progressively higher assemblies, up to the assembly where interchangeability is reestablished. PTD shall include the interchangeable assembly.

    c. EDFP is not required for deleted items.

    d. Changes that occur after PTD has been delivered shall be documented as a revision to the applicable PTD.

    e. When the design change significantly impacts the system or equipment configuration, and when directed by the Administrative Contracting Officer, a changed system or equipment shall be provisioned as a new end item and documented by PTD with associated EDFP.

16. ***Allowance Parts List Worthiness Rules***. The contractor shall follow Appendix F guidelines in determining the need for furnishing PTD for Contractor Furnished Equipment (CFE). Any equipment not falling under these rules shall be referred to the TSA to determine if PTD is to be submitted.

17. ***Tools and Test Equipment***. Tools and test equipment built in as an integral part of the equipment shall always be included in the PPL for the equipment.

18. ***Provisioned Item Order***. If the Government elects to procure support items from the contractor, the Government will release an initial basic PIO for the required support items. If concurrent delivery is required and such delivery necessitates a delay in the delivery of the end items or components, an

adjustment in the delivery requirements will be considered. The Government reserves the right to place additional orders for support items during the life of the contract.

19. ***Interactive Computer Aided Provisioning System (ICAPS)***. The hardware contractor may choose to utilize ICAPS as the method of developing and processing PTD to the Government. It is available free of charge to contractor personnel as well as government agencies. Contractors are encouraged to take advantage of the opportunity to utilize this software which would eliminate any concern about compatibility of the contractor's system with ICAPS. Information on how to obtain the latest version of ICAPS is available on the ICAPS Homepage (http://icaps.nctsjax.navy.mil). Two versions of ICAPS are available for use: mainframe and PC. User training for ICAPS is available at no cost to the contractor. The Government will provide the PC software upon request and will assist with obtaining access to the mainframe if required. The Government will also provide user's manuals to assist with the use of the software.

20. ***Use of a Non-ICAPS Database***. The Navy requires the PTD to be delivered in a format accepted by ICAPS. The ICAPS software is designed to support and accept data in MIL-STD-1552A and MIL-STD-1388-2A/2B (LSA-036) and LMI formats. LMI format is defined in the LMI Worksheet Attachment 1 . If a non-ICAPS system is utilized, it must be able to produce a structured formatted text or flat file in accordance with the direction contained in Attachment 1 to the LMI Worksheet. Incremental data submissions are possible, but only at the component level. The appropriate CDRLs must be invoked to obtain the desired provisioning deliverables.

21. ***LMI Worksheet***. The LMI Worksheet with Attachments 1 and 2 provides a vehicle for identifying the required LMI data elements to be completed and, when applicable, the media of delivery (floppy disk, CD, electronic transfer, etc.). The worksheet identifies the specific data elements that are required.

23. ***LMI Summary for EDFP***. The LMI Summary for Engineering Data For Provisioning (EDFP) may be included in the contract if necessary, as it describes/defines the data requirements and format necessary for the delivery of EDFP. See paragraph 4 above for applicability.

24. ***Vendors/Subcontractors***. When the prime contractor buys end articles or a portion thereof from a vendor/subcontractor, the prime contractor shall impose this specification upon its vendors/subcontractors. The inclusion of the requirement for such data on contractor's subcontracts/purchase orders to its vendor/subcontractors does not relieve the prime contractor of its obligation to insure timely delivery of the required Provisioning Data Products, EDFP, and other provisioning deliverables.

LIST OF APPENDICES

A Source, Maintenance, and Recoverability (SMR) Codes
B Technical Replacement Factors (TRFs)
C Guidance For Assignment Of Part To Component Essentiality Codes (ECs)
D Reference Designation, Quantity per Assembly and Quantity per End Item
E Indenture Coding
F Hull, Mechanical and Electrical (HM&E) Equipment/Component Support Criteria
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H Standard PIO Clause and Guidance for Completion of Standard Form 26, Award/Contract
I Definitions

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APPENDIX A

Source, Maintenance, and Recoverability (SMR) Codes

SMR codes are used to communicate maintenance and supply instructions to the various logistic support levels. These codes are assigned to each support item based on the logistic support planning for the end item and its components. The SMR code is a six position alphanumeric entry. It is data product number 1220 of the Data Product Dictionary found in the LMI Specification (MIL-PRF 49506), and should be reported in Record B Block 22 of the LMI data product format (See LMI Worksheet Attachment 1 for format requirements).

1. Source Code. Codes entered in the first and second positions of the SMR Code indicating the source for acquiring the item for replacement purposes, i.e., procured and stocked, manufactured or assembled. These codes are defined in Table I. The Source code is contained in the Weapon Systems File (WSF) level C in Data Element Number (DEN) D012.

2. Maintenance Code. Codes entered in the third and fourth positions of the SMR Code which consist of the Use Code and the Repair Code. There are three maintenance levels: Organizational, Intermediate, and Depot. These codes are defined in Table II. The contractor shall assign the appropriate Use and Repair Codes for each candidate spare or repair part. The Maintenance codes are contained in the WSF level C in DENs D013A and D013B.

a. Use Code. The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove/replace, and use the item. The decision to code the item for removal and replacement at the indicated maintenance level will require that all the resources necessary to install and assure proper operation after installation of a replacement item (i.e., pre-installation inspection, testing and post-installation checkout) are provided.

b. Repair Code. The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform a complete repair action. The decision to code the item for repair at the indicated maintenance level requires that the proper logistics support (parts, manuals, training, tools, etc.) and all repair capability (remove, replace, repair, assemble, manufacture and testing for the support item) be provided or be available to that maintenance level. This does not preclude some minor repair which may be accomplished at a lower level of maintenance such as: simple replacement of minor items at the organizational level (fuses, light bulbs, screws, knobs, handles, etc.) Because of service differences in communicating maintenance information, a maintenance code entry in this position is not required by all services. Therefore this position is for optional use on intra-service equipments. When a maintenance code is not used a dash (-) sign will be entered. For multi-service equipments this position will contain a uniform maintenance code assigned by the service (s) requiring the code.

3. Recoverability Code. Code entered in the fifth position of the SMR Code which indicates the desired disposition of the support item. The Recoverability code is contained in WSF level C in DEN D013C. (See Table III.)

4. Service Option Code. Code entered in the sixth position of the uniform format used to convey specific information to the logistic community and to the operating forces. This code is unique to each service and is utilized to disseminate specific instructions to that Service's logistics business processes. The last segment of the SMR code is in WSF level C in DEN D012A. (See Table IV.)

TABLE I

UNIFORM SOURCE CODES

GENERAL: Source Codes are assigned to support items to indicate the manner of acquiring support items for maintenance, repair, rework or overhaul of end items. Source codes are entered in the first and second positions of the Uniform SMR Code format.

1. *A Series Source Codes*. **A** series source coded items are authorized for assembly at some level of maintenance. These codes should be assigned when all parts for assembly, the required support equipment and the skills required for the assembly are available at the specified level of maintenance. A source coded items require at least one P coded item in the assembly.

CODE	DEFINITION
AD	Item to be assembled at depot maintenance levels.
AF	Item to be assembled at intermediate maintenance level. Air Force - Intermediate(*) Marine Corps - 3rd Echelon Army - Direct Support Navy - Afloat
AG	Item to be assembled at both afloat and ashore intermediate maintenance levels - Navy use only.
AH	Item to be assembled at intermediate maintenance level. Air Force - Intermediate(*) Marine Corps - 4th Echelon Army - General Support Navy - Ashore
AL	Item is to be assembled at a specialized repair activity (e.g., item requires specialized tests and fixtures to insure proper assembly).
AO	Item to be assembled at organizational level.

2. *K SERIES SOURCE CODES.* **K** series source coded items are contained in kits and do not / will not have an NSN assigned. **Note: In those instances where an item is part of a kit and is also an item extraneous to the kit, the P series source code will take precedence.**

CODE	DEFINITION
KB	Item included in both a depot overhaul/repair kit and a maintenance kit.
KD	An item contained in a depot overhaul/repair kit and not purchased separately. Depot kit defined as a kit that provides items required at the time of depot overhaul or repair.
KF	An item contained in a maintenance kit and not purchased separately. Maintenance kit defined as a kit that provides an item that can be replaced at organizational or intermediate levels of maintenance.

3. *M series Source Codes*. **M** series source coded items are to be manufactured or fabricated at some level of maintenance. They are normally consumable items or those requiring very limited repair (e.g., bending, painting, alignment, etc.). The assignment of this code should be based primarily on the predicted usage of the item over the life cycle of the end item and the practicality and economics of stocking, storing and issuing items. Typical **M** coded items include hose assemblies, tubing, name plates, decals, wires, etc. which have minimal likelihood of replacement during the life cycle of the end item. All the publications, manufacturing data, required shop equipment and skills must be available at the specified level of maintenance.

CODE	DEFINITION
MD	Item to be manufactured or fabricated at depot maintenance level.
MF	Item to be manufactured or fabricated at intermediate maintenance level. Air Force - Intermediate(*) Marine Corps - 3rd Echelon Army - Direct Support Navy - Afloat
MG	Item to be manufactured or fabricated at both afloat and ashore intermediate maintenance levels - Navy use only.
MH	Item to be manufactured or fabricated at intermediate maintenance level. Air Force - Intermediate(*) Marine Corps - 4th Echelon Army - General Support Navy - Ashore
ML	Item is to be manufactured at a specialized repair facility (e.g., environmental considerations).
MO	Item to be manufactured or fabricated at organizational level.

4. *P SERIES SOURCE CODES*. **P** series source coded items are items which are centrally procured.

CODE	DEFINITION
PA	Item is procured and stocked for anticipated or known usage. Items are normally considered for replenishment.
PB	Item procured and stocked for insurance purposes because essentiality dictates that a quantity be available in the supply systems.
PC	Item procured and stocked but is deteriorative in nature.
PD	Support item, excluding support equipment, procured for initial issue or outfitting and stocked only for subsequent or additional initial issues or outfittings. Not subject to automatic replenishment.
PE	End item and/or support equipment procured and stocked for initial issue or outfitting for specific maintenance repair activities.

CODE	DEFINITION
PF	Support equipment which will not be stocked but which will be centrally procured on demand.
PG	Item is procured and stocked to provide for sustained support for the life of the equipment. It is applied to an item which, because of probable discontinuance or shutdown of production facilities would prove uneconomical to reproduce at a later time.
PH	Item is procured and stocked and has been identified to contain hazardous material. Item requires recordation in the Hazardous Material Information System (HMIS) and a Material Safety Data Sheet (MSDS).
PR	End item and/or support item, terminal or obsolete and replaced. No longer authorized for procurement. On hand assets may be issued until exhausted. Then use replacement item.
PZ	Item is terminal or obsolete with no replacement; discontinue use. (Army only. This code will not effect other services if they are recorded as a user at DLSC.)

5. *X Series Source Codes*. **X** series source coded items are items for which no demand is anticipated.

CODE	DEFINITION
XA	Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly.
XB	Support item with low mortality rate**,** not procured or stocked. Item may/may not be available through salvage. Salvage should be considered unless use of salvage item is prohibited by instruction in equipment publication. If prohibited, requisition through normal supply channels using Commercial and Government Entity (CAGE) code and reference number.
XC	Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturers' part number.
XD	Support item with low mortality rate, not stocked. Local purchase or requisition through normal channels using contractor and government entity code (CAGE) and reference number. Not obtainable from salvage/cannibalization.

TABLE II

MAINTENANCE CODES

GENERAL: Maintenance codes are assigned to indicate the levels of maintenance authorized to *USE, REMOVE, REPLACE* or *REPAIR* support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code Format as follows:

Use (third position): The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove, replace and use the support item. The decision to code the item for removal and replacement at the indicated maintenance level will require that all the capabilities necessary to install and insure proper operation after installation of a replacement item (i.e., pre-installation inspection, testing, and post-installation checkout) are provided. The maintenance code entered in the third position will indicate one of the following levels of maintenance.

CODE	APPLICATION/EXPLANATION
D	Support items that are removed, replaced, used at Depot only: USAF - Depot, Mobile Depot and Specialized Repair Activity USA - Depot, Mobile Depot and Specialized Repair Activity USN - Aviation Rework, Avionics and Ordnance Facilities and Shipyards USMC - Depot
F	Support item is removed, replaced, used at the following intermediate levels: USAF - Intermediate (*) USA - Direct Support (*) USN - Afloat USMC - Third Echelon
G	Support item is removed, replaced, used at both afloat and ashore intermediate levels. (Navy only)
H	Support item is removed, replaced, used at the following intermediate levels: USAF - Intermediate (*) USA - General Support (*) USN - Ashore (only) USMC - Fourth Echelon * *NOTE:* For USAF programs and the USA safeguard program, Code F will be used to denote intermediate maintenance. On joint programs, use of either Code F or H by the joining service will denote intermediate maintenance to USAF and the USA safeguard program.
K	Repairable item. Item is removed, replaced or used at contractor facility.
L	Item is removed, replaced or used at designated specialized repair activity.

CODE	APPLICATION/EXPLANATION
O	Support item is removed, replaced, used at the organizational level of maintenance.

Note (1): To distinguish between the organizational maintenance capabilities on different classes of ships the following codes may be used intra-Navy only. On joint programs, Navy will receive and transmit an O to indicate organizational maintenance level.

2 - Minesweeper, Yardcraft, Patrol Boat
3 - Submarines
4 - Auxiliary / Amphibious Ships
5 - Minor Combatant (Destroyer, Frigate)
6 - Major Combatant (Cruiser, Carrier)

Note (2): On Army programs, a code "C" may be used in the third position to denote crew or operator maintenance performed within organizational maintenance. On joint programs, the Army will receive or transmit an O to indicate organization level.

Z	Item is not authorized to be removed or replaced at any maintenance level. This code is assigned to items not required for support in a specific application and is identified for reference purposes only. (Navy use only.)

MAINTENANCE CODES

Repair (fourth position): The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair. The decision to code the support item for repair at the indicated maintenance levels requires that all maintenance capability (remove, replace, repair, assemble and test) for the support items be provided to that level. This does not preclude some minor repair which may be accomplished at a lower level of maintenance. However, because of service differences in communicating maintenance repair level information a maintenance code entry in this position is not required by all services. When a maintenance code is not used a dash (-) sign will be entered. For multi-service equipment / systems or when a code is entered, this position will contain one of the following maintenance codes as assigned by the service(s) that require the code:

CODE	APPLICATION/EXPLANATION
B	No repair is authorized. The item may be reconditioned by adjusting, lubricating, etc. at the user level. No parts or special tools are procured for the maintenance of this item.
D	The lowest maintenance level capable of complete repair of the support item is the Depot level. USAF - Depot, Mobile Depot USA - Depot, Mobile Depot USN - Aviation Rework, Avionics and Ordnance Facilities and Shipyards USMC - Depot
F	The lowest maintenance level capable of complete repair of the support item is the following intermediate level: USAF - Intermediate (*) USA - Direct Support (*) USN - Afloat USMC - Third Echelon
G	Both afloat and ashore intermediate levels are capable of complete repair of support item. (Navy only)
H	The lowest maintenance level capable of complete repair of the support item is the following intermediate level: USAF - Intermediate (*) USA - General Support (*) USN - Ashore (only) USMC - Fourth Echelon

* *NOTE:* For USAF programs and the USA safeguard program, Code F will be used to denote intermediate maintenance. On joint programs, use of either Code F or H by the joining service will denote intermediate maintenance to USAF and the USA safeguard program.

MAINTENANCE CODES (cont.)

CODE	APPLICATION/EXPLANATION
K	Repairable support item. Complete repair capability exists at a designated contractor facility.
L	Repair should be performed at the designated Specialized Repair Activity.
O	The lowest maintenance level capable of complete repair of the support item is the organizational level.

Note (1): To distinguish between the organizational maintenance capabilities on different classes of ships the following codes may be used intra-Navy only. On joint programs, Navy will receive and transmit an O to indicate organizational maintenance level.

2 - Minesweeper, Yardcraft, Patrol Boat
3 - Submarines
4 - Auxiliary / Amphibious Ships
5 - Minor Combatant (Destroyer, Frigate)
6 - Major Combatant (Cruiser, Carrier)

Z	Non-repairable. No repair is authorized.

TABLE III

RECOVERABILITY CODES

GENERAL: Recoverability Codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the uniform SMR Code Format as follows:

CODE	APPLICATION/EXPLANATION
A	Non-repairable. Item requires special handling or condemnation procedures because of specific reasons (i.e., precious metal content, high dollar value or critical material. Refer to appropriate manuals / directives for specific instructions.
D	Repairable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.
F	Repairable item. When uneconomically repairable, condemn and dispose at the following intermediate levels: USAF - Intermediate (*) USA - Direct Support (*) USN - Intermediate Afloat USMC - Third Echelon F
G	Field level repairable item. When uneconomically repairable, condemn and dispose at either afloat or ashore intermediate levels. (Navy only)
H	Repairable item. When uneconomically repairable, condemn and dispose at the following levels: USAF - Intermediate (*) USA - General Support (*) USN - Intermediate Ashore USMC - Fourth Echelon * *NOTE:* For USAF programs and the USA safeguard program, Code F will be used to denote intermediate maintenance. On joint programs, use of either Code F or H by the joining service will denote intermediate maintenance to USAF and the USA safeguard program.
K	Repairable item. Condemnation and disposal to be performed at contractor facility.
L	Repairable item. Repair, condemnation and disposal not authorized below depot level.
O	Repairable item. When uneconomically repairable, condemn and dispose at organizational level.
Z	Non-repairable item. When item becomes unserviceable, condemn and dispose of at authorized level.

TABLE IV

SERVICE OPTION CODES

GENERAL*:* Service Option Codes are assigned to support items to convey specific information to the Service's logistics community / operating forces. Each service uses the code to disseminate specific instructions which add to that Service's internal logistics practices. Service Option Codes are entered in the sixth position of the Uniform SMR Format as follows:

ARMY - Demilitarization Code used in accordance with DOD 4160.21-M-1. Identifies unique requirements to be considered when an item is condemned.

MLI - Denotes Military List Team
SLI - Denotes Strategic List Team

Code	Application
A	No demilitarization required.
B	MLI, no demilitarization required.
C	MLI, remove deadly parts in accordance with DOD 4160.21-M-1.
D	MLI, mutilate.
E	MLI, burn, shred or pulp.
F	MLI, contact the item manager.
G	MLI, demil prior to DRMO.
P	MLI, security classified, DECLAS, demilitarize sensitive markings prior to transfer to DRMO. Not used on AEDA items.
Q	SLI, mutilate to preclude normal use, OCONUS only.

AIR FORCE - Expendability Recoverability Reparability Category Code (ERRC). Provides management characteristics, funding and condemnation information.

Code	Application
C	Recoverable, condemn at depot level. (SCARS)
N	Throw away, condemn at maintenance use level.
P	Recoverable, condemn at intermediate level.
S	Support equipment, condemn at depot level. (AFEMS)

T	Recoverable, Condemn at depot level. (AFRAMS)
U	Support equipment, condemn at O/F level. (AFEMS)

NAVY - Service Option Code. Provides specific data to the maintenance community which cannot be conveyed in the Uniform SMR Coding Format.

Code	Application
1	Engine intermediate maintenance level - First Degree.
2	Engine intermediate maintenance level - Second Degree.
3	Engine intermediate maintenance level - Third Degree.
6	PA source coded item which is normally procured commercially but organic capability exists to manufacture (source code M series) for emergency stop gap requirements. Organic sources should be reviewed when commercial sources cannot meet demand.
8	Indicates a inter-service depot non-consumable item that is, by the Navy maintenance plan, repairable by second degree engine maintenance level.
9	Indicates a inter-service depot non-consumable item that is, by the navy maintenance plan, repairable by third degree engine maintenance level.
E	Items which are removed by the O level with no I level repair authorized; however, the I level must perform end to end test to verify failure prior to final disposition. (Beyond Capability of Maintenance)
J	Indicates and inter-service DLR, that is, by the Navy maintenance plan, considered completely repairable below the depot level.
P	Indicates the item is under a progressive maintenance review. (Item will be coded O in the fourth position and D in the fifth position.) P (sixth position) will then indicate intermediate is authorized between O and D levels. In the unlikely event that two different service option codes apply to the same item, the "P" progressive maintenance code will take precedence.
R	Indicates Gold Disc repair capability has been developed at the organizational and/or intermediate levels of maintenance. Repair must be performed in a certified Module Test and Repair Facility (MTRF).
T	PD source coded item which has peculiar application to training devices.

APPENDIX B

Technical Replacement Factors (TRFs)

During the provisioning process for a new system/equipment, each part within the system/equipment subject to replacement that was not identified to a National Stock Number (NSN) during screening shall be assigned a TRF by the contractor. The TRF is an engineering estimate derived from several sources, depending upon the characteristics of the item (electrical, mechanical, electronic). The TRF is used in the computation of stocking levels until the item has been in the supply system long enough to establish a demand or usage pattern. When demand data are applied, the TRF is updated.

1. Relationship of TRF to Failure Rate. Failure rate, as commonly used in discussing reliability or failure prediction of equipment and their repair parts, is the ratio of the number of part failures divided by the population of the part and the time period over which failures were observed. Failure rates are commonly expressed in terms of the number of failures per million hours of operation, although conversion can be made to any time base convenient for discussion.

The similarities between TRF and failure rate are readily apparent. They both represent a ratio of the number of occurrences of an event (failure or usage) to the population of the item in service during the time the event occurred. They both are used to predict the number of events expected to occur during some future time period for some known population in service during this future time period. They both are subject to bias due to faulty classification (e.g., an item was replaced even though it had not failed).

The TRF assigned to an item is not only a function of failure, but is also a function of maintenance philosophy, since it is the maintenance philosophy which determines what is to be replaced (demanded).

2. TRFs of Zero. There is a rationale for an item to have a TRF of zero. For example;

- It is never demanded, because it never fails.
- It is never demanded because when it fails it is not replaced since the individual parts within, which have caused it to fail, are replaced (i.e., the item is repaired).

In each of the above, the single condition which causes an item to have a TRF of zero is that it is never demanded. There is but one reason for an item to have a zero failure rate--it never fails.

3. Example of TRF Calculation. TRF is calculated by applying the appropriate data to the ratio from the testing to the ratio of item replacement times the hours per year divided by item population for the test times the hours of the test. This is represented by the following equation:

$$\frac{\text{Replacements} \times \text{Operating Hrs/Year}}{\text{Test Population} \times \text{Test Hrs}}$$

The TRF is an eight position numeric entry in Block C-34 (MRRI Block) of the LMI Provisioning Data Product requirements format (See LMI Worksheet Attachment 1). The decimal point is assumed to fall between the fourth and fifth positions. The procedures for calculating the TRF of a table lamp are presented in this section. The lamp consists essentially of 4 parts:

- The light bulb - a consumable assembly
- The combined socket and switch - a consumable assembly
- The electric cord - a consumable item
- The plug - a consumable item.

The assumption is made that the lamp is operated for 1,000 hours a year, or a little less than 3 hours a day, and that the functional parts of the lamp listed above have the following Mean Time Between Failures (MTBFs) and failure rates:

Item	MTBF	Failure Rate/Year
Light Bulb	750 HRS	1.333
Socket Switch	10,000 HRS	0.100
Electric Cord	15,000 HRS	0.066
Plug	10,000 HRS	0.100

By summing the failure rates of the parts of the lamp, the failure rate of the lamp itself can be derived. Doing this, it is found that the lamp will fail 1.599 times per year, largely due to the light bulb failing 1.333 times per year, but the other parts will make some contribution to the failure rate of the lamp. The table above does indicate, however, that if the lamp is owned for a long period of time, say 10 or more years, failure of the socket/switch cord or plug is to be expected. Note at this point that even though the failure rates of the parts of the lamp have been determined, the TRFs of the parts or the lamp still cannot be determined. To do this, the maintenance philosophy for the lamp needs to be known. In this simplified case, the number of different maintenance philosophies available are few: the lamp may either be repaired when it fails, replaced when it fails, or a combination of the two. That is, the lamp might be repaired when it fails if the light bulb is the failed part, and replaced when any of the other parts have failed. Note that the TRFs to be assigned to the lamp and the parts are a function of which of the above is chosen. If the lamp is replaced any time it fails, the lamp is the replaced (demanded) part; therefore, it has a TRF, but none of the parts do. If the lamp is repaired by replacing the failed parts, each of these has a TRF; the lamp does not. If the light bulb is replaced when it burns out, but the whole lamp is replaced when anything else fails, the lamp and the light bulb have TRFs, but the other parts do not. The maintenance philosophies and the resultant variable TRFs can be shown in a table thus:

Item	Failure Rate Per Year	Replace Failed Part	Replace Lamp	Replace Failed Bulb, Otherwise Replace Lamp
Lamp	1.599	TRF = 0	TRF = 1.599	TRF = 0.266
Bulb	1.333	TRF = 1.333	TRF = 0	TRF = 1.333
Socket/Switch	0.100	TRF = 0.100	TRF = 0	TRF = 0
Cord	0.066	TRF = 0.066	TRF = 0	TRF = 0
Plug	0.100	TRF - 0.100	TRF = 0	TRF = 0

Using the simplified example above, some parallels can be drawn between this example and the maintenance philosophies experienced in supporting shipboard equipment.

The first maintenance philosophy represents the "traditional" way a majority of equipment is supported today (i.e., repair in place using piece parts throughout the life of the equipment, with replacement of the end item only in the event of catastrophic failure or damage beyond repair).

The second philosophy represents the case of modular replacement with no repair at the organizational level. In the case of Navy equipment, the module, or in our example the lamp might be sent to a depot for repair and returned to the owner or to stock.

The third philosophy represents limited organizational maintenance with more difficult and time consuming repair deferred to a higher level.

The sample serves to illustrate that assignment of a TRF requires knowledge of failure rates for the parts concerned. TRF is also a function of the maintenance philosophy to be applied. That is, the determination must be made whether the item will be replaced (demanded) upon failure, for if an item will not be replaced (demanded) upon failure, its TRF must be zero. Since TRF equals demand divided by population, if demand is zero, TRF is also zero.

4. TRFs Assigned to Consumables. TRFs for low cost, common design consumables (resistors, capacitors, etc.) shall be taken from the Generic Item Name Technical Replacement Factor Guide. (Provided as Government Furnished Information [GFI]). This data reflects observed supply demand for these items, including false replacements, requisitions for stores, toolboxes, losses, etc., in addition to actual failures. For high cost, unique design consumables peculiar to the end item (special purpose tools, power supplies, potted or encapsulated assemblies), use the following sources in descending order of preference:

a. Actual failure data from the manufacturer.

b. MIL-HANDBOOK-217 Reliability Prediction converted to TRF by multiplying failures per hour by yearly component operating hours, taking duty cycles and stress factors into consideration.

c. Observed data for similar items.

5. Repairable Item TRFs. TRFs for repairable items are first assigned a raw TRF as described in paragraph 4 above. The raw TRF is then derated by a derating factor described below.

a. Items Totally Repairable at the Organizational Level. Obtain the appropriate TRF as described in paragraph 4 and then apply a derating factor from .10 to .99 depending upon the ease of repair, cost of the item and availability of all components of the assembly at the organizational level. The resulting replacement factor will be the number of items per application per year which fail, are not repaired at the organizational level, and must be requisitioned from the storeroom.

b. Items Installed by the Intermediate Level and Totally Repairable at the Intermediate Level. Obtain the appropriate TRF as described in paragraph 4 and then apply a derating factor from 10 to .99 depending upon the ease of repair, cost of the item and availability of all components of the assembly at the intermediate level. The resulting replacement factor will be the number of items per

application per year which fail, are not repaired at the intermediate level, and must be requisitioned from the storeroom.

c. Items Partially Repairable at the Organizational Level and Totally Repairable at the Intermediate Level. Obtain the appropriate TRF as described in paragraph 4. A derating factor from .10 to .99 will be assigned depending on the ease of repair, cost of item, and availability of all components of the assembly at the organizational level. The resulting replacement factor will be the number of items per application per year which are neither repaired at the organizational level nor the intermediate level, and which must be replaced from system stocks.

d. Items Not Repairable at the Organizational or Intermediate Level and Partially or Completely Repairable at the Depot Level. Enter the appropriate TRF as described in paragraph 4 to the organizational level. A derating factor of .99 will be assigned. The resulting factor indicates negligible demand on system stock.

APPENDIX C

Guidance For Assignment Of Part To Component ECs

The Military Essentiality Code (MEC) indicates the degree to which unavailability of a replacement for an installed item when needed to perform corrective maintenance affects the ability of the end item to perform its primary function in the intended manner. An end item is a final combination of end products, component parts, and/or materials which is ready for its intended use (e.g., radar set, fire control system, electrical generator). The need to perform corrective maintenance is normally the result of failure of an item and so essentiality is commonly evaluated in the context of item failure, but it must be remembered that some parts may be needed for replacement owing to their use when replacing other failed parts (e.g., gaskets).

I. CODE 1

A. LMI Data Product Dictionary #280 Definition: Failure of this item will render the end item inoperable.

B. Guidance on Assignment of:

1. Failure of this item in its normal failure modes will result in total and catastrophic failure of the end item or a critical function of the end item.

2. This item is a part which normally is not considered to fail but is required to be installed, along with an item whose failure will result in total and catastrophic failure of the end item (e.g., gaskets, seals, etc.).

3. This item monitors a critical function and a malfunction will disenable an operator's capability to recognize a catastrophic failure.

II. CODE 3

A. LMI Data Product Dictionary #280 Definition: Failure of this part will not render the end item inoperable.

B. Guidance on Assignment of:

1. Failure of this item in its normal failure modes will result in at most minor degradation of the end item.

III. CODE 5

A. LMI Data Product Dictionary #280 Definition: Item does not qualify for assignment of Code 1 but is needed for personnel safety.

B. Guidance on Assignment of:

1. The Navy states that for MEC Code 5, the item may or may not qualify for assignment of Code 1; however, failure without immediate replacement or lack of this item will directly and immediately infringe on the safety of personnel operating or maintaining the equipment. This code should not be assigned to parts or assemblies which are installed in systems whose primary purpose is safety of ship/aircraft or personnel simply because of that system relationship unless the item separately meets the first part of this guidance.

2. If an item qualifies for MEC 5, it should be assigned MEC 5 regardless of what other MEC it also qualifies for.

IV. CODE 7

A. LMI Data Product Dictionary #280 Definition: Item does not qualify for the assignment of Code 1 but is needed to prevent impairment or the temporary reduction of operational effectiveness of the end item.

B. Guidance on Assignment of:

1. Failure of this item in any of its normal failure modes will not result in total and catastrophic failure of the end item but rather will result in only partial degradation of the end item allowing continued operation within acceptable performance ranges. Items should be classified as MEC 7 if their normal failure modes are gradual deterioration or wear and such gradual deterioration or wear is noticeable or detectable prior to its reaching maximum limits. Items should also be classified as MEC 7 if redundancy provides for continued operation after failure of one unit of an item but at reduced capacity or capability. If redundancy provides for continued operation after failure of one unit of an item at normal capacity or capability, assignment of MEC 3 is appropriate.

2. This assignment applies to all built-in test circuitry which is critical to the monitoring or fault isolation of the end item. The exception applies to those components which monitor critical functions in which a failure will hide a critical failure.

APPENDIX D

Reference Designation, Quantity per Assembly and Quantity per End Item

The purpose of the Reference Designation Example is to illustrate the relationships between the following data elements:

- Reference Designation
- Quantity per Assembly (QTY/ASSY)
- Quantity per End Item (QTY/EI)

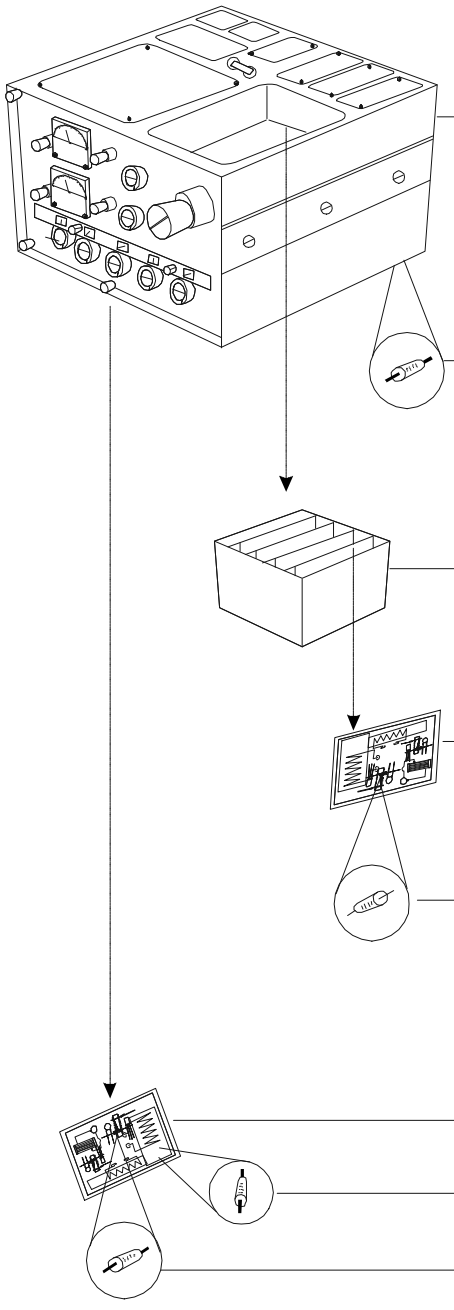
REFERENCE DESIGNATION STRUCTURE:

A reference designation provides configuration information linking a component to a location within an equipment. The preferred reference designation structure is the standard ANSI Y32.16 electronics format (i.e., 1A2C-5). Other acceptable formats are the technical manual figure and index number (i.e., FIG-12 ITEM-38) or the engineering drawing and item number (i.e., DRAWING 39847-4 ITEM 25). The TSA can provide additional guidance regarding acceptable reference designation formats. The receiver appearing on the next page illustrates the relationship of an equipment (e.g., the receiver) to some of its component parts. The receiver and its subordinate components are all identified by a unique reference designation. Each additional level of indenture of breakdown adds additional characters to the Reference Designation, moving from the receiver (Reference Designation "1") to the diode (Reference Designation "1A2A6A15CR-4"). The following "family tree" for the diode describes these relationships:

LINE ITEM	REFERENCE DESIGNATION	QTY ASSY	QTY EI	PART NUMBER
RECEIVER	1	1	1	01A2266000-21-11
RADIO-SUBASSY	1A2	1	1	01A2266062-21-11
DIODE	1A2CR-1	1	4	JAN IN649
XLATOR-SYN	1A2A6	1	1	99A226060-21-11
CIRCUIT CARD	1A2A6A15	1	2	01A226078-21-11
DIODE	1A2A6A15CR-4	2	REF	JAN 1N649

(See Reference Designation Example on page D-2)

REFERENCE DESIGNATION
EXAMPLE



LISTINGS

REFERENCE DESIGNATION	QTY ASSY	QTY EI	NOMENCLATURE	PART NUMBER
1	1	1	RECEIVER	01A2266000-21-11
1A2	1	1	RADIO-SUBASSY	01A226062-21-11
1A2CR-1	1	4	DIODE	JAN 1N549
1A2A6	1	1	XLATOR-SYN	99A225050-21-11
1A2A6A15	1	2	CIRCUIT CARD	01A226078-21-11
1A2A6A15CR-4	2	REF	DIODE	JAN 1N649
1A2A8	1	1	POWER SUPPLY	01A266170-21-11
1A2A8R-2	1	1	RESISTOR	RCR07G105JS
1A2A8CR-1	1	REF	DIODE	JAN 1N649

QTY/ASSY AND QTY/EI RELATIONSHIPS:

The sum of all QTY/ASSY values for a given part in the equipment must equal the QTY/EI of the part. This may lead to a computational problem when an assembly is used several times in an equipment but its component parts are listed only once at the first appearance of the assembly.

To resolve the problem, the QTY/ASSY of each component is adjusted by multiplying the original QTY/ASSY by the QTY/EI of the assembly. In the "receiver" example, the original QTY/ASSY of the 1A2A6A15CR-4 diode (i.e., "1") is multiplied by the QTY/EI of the 1A2A6A15 assembly (i.e., "2") and the resulting QTY/ASSY for the diode is "2."

An automated summation of the QTY/ASSY values for the diode, part number JAN IN649, now results in a correct QTY/EI value of "4."

REFERENCE DESIGNATION, QTY/ASSY AND QTY/EI RULES:

The following "rules" will help ensure that proper Reference Designations, Quantity per Assembly and Quantity per End Item are provided in Provisioning Technical Documentation:

- Dashes are required in the piece part field. This dash separates the alpha and numeric portion of the piece part identification.
- Each Reference Designation must be unique.
- Reference Designation structure must provide an auto- mated sort in top-down sequence.
- Reference Designation must agree with technical manuals and drawings.
- Quantity per End Item must indicate the total quantity within the "equipment".*
- A summation of the Quantity per Assembly for a part within an "equipment"* must be equal to the QTY/EI for the part.

* The term "equipment" refers to any item being documented by a unique Provisioning Contract Control Number (PCCN).

APPENDIX E

Indenture Coding

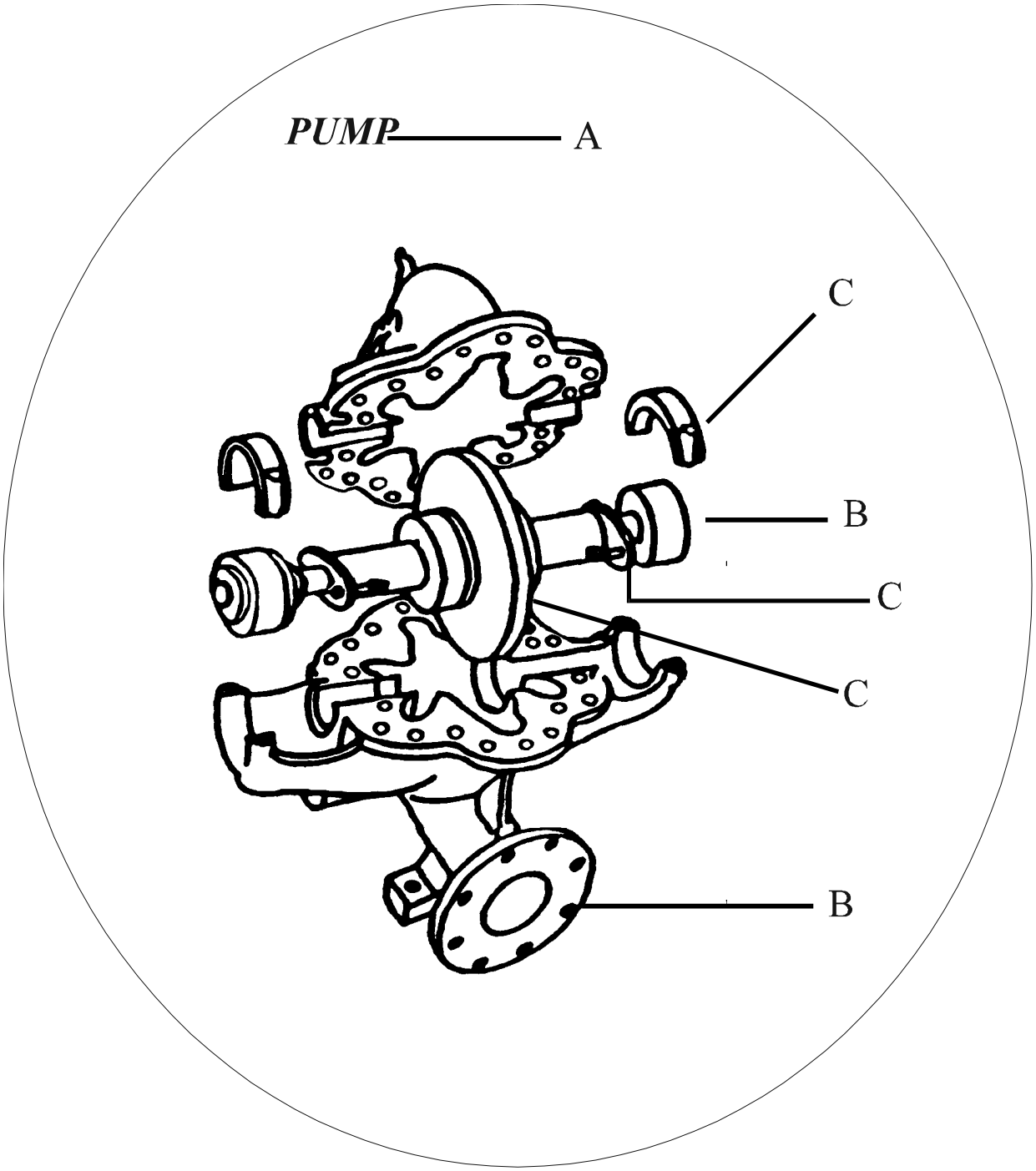
The purpose of the Indenture Coding Example is to illustrate the relationships between the following data elements:

- Indenture Code
- Quantity Per Assembly (QTY/ASSY)
- Quantity per End Item (QTY/EI)
- Part Numbers

INDENTURE CODING STRUCTURE

All PCCNs will have indenture codes assigned to each PLISN. PCCNs utilizing reference designators will have the reference designator as the sequencing method. PCCNs without reference designators assigned will utilize indenture codes for sequencing purposes. They are used to show a lateral and descending family tree relationship of each line item to and within the system or end item and its components (units), assemblies, subassemblies, and sub-subassemblies. Indenture codes are assigned as a one-character alphabetic symbol as follows:

```
*A*B*C*D*E*F
*
*A  END ITEM
* *B  Detailed parts of end item not contained in components of
* *  installed system
* *
* *B COMPONENT (UNIT)
* * *C  Detailed parts of component (unit) which are not
* * *  assemblies or subassemblies
* * *
* * *C  ASSEMBLIES
* * * *D  Detailed parts of assemblies which are not
* * * *  subassemblies
* * * *
* * * *D  SUBASSEMBLIES
* * * * *E  Detailed parts of subassemblies which are not
* * * * *  sub-subassemblies
* * * * *
* * * * *E  SUB-SUBASSEMBLIES
* * * * * *F  Detailed parts of sub-subassemblies
* * * * * *
```


PUMP
A
C
B
C
C
B

The following "family tree" shows the indenture coding structure as depicted in the Indenture Coding Example.

Note that the first listed bearing at indenture level "C" shows a QTY/ASSY of 1 and a QTY/EI of 2. For the second listed bearing, which has the same part number as the first listed bearing, the QTY/EI is REF to indicate that this line item has already appeared on the provisioning list.

Line Item	Indenture Code	QTY/ASSY	QTY/EI	Part Number
PUMP	A	1	1	ABC
CASING	B	1	1	DEF
ROTOR ASSY	B	1	1	GHI
IMPELLER	C	1	1	JKL
SHAFT	C	1	1	MNO
BEARING	C	1	2	PQR
BEARING	C	1	REF	PQR

APPENDIX F

GENERAL APL WORTHINESS GUIDANCE

This Appendix contains guidelines for use in determining the need to submit PTD for the development of APLs to support new items. While these rules provide general guidance for determining if an item is non-APL worthy, any item that requires clarification of APL worthiness should be referred to the TSA for final determination. PTD submittal shall be required for all items determined to be APL worthy.

GENERAL APL WORTHINESS RULES: An item is considered APL worthy if it is identifiable by its own nameplate, can be operated independently or as part of another system, and if either of the following situations apply:

a. The end item/component is determined by the maintenance philosophy to be repairable through replacement of one or more parts, or

b. The end item/component has been determined to be non-repairable (consumable) by the maintenance philosophy, but is mission critical or configuration worthy.

If any of the above guidance is not applicable, the item is considered non-APL worthy and will be added as a Line Item (LI) to the Next Higher Assembly (NHA) APL or to the ship's 89000 series APL.

2. ADDITIONAL HULL, MECHANICAL AND ELECTRICAL (HM&E) EQUIPMENT GUIDANCE: For a current listing of HM&E equipment requiring special provisioning and/or allowance preparation procedures, or equipment that will not have supply support provided, see "APL Worthiness Guidance" at http://157.187.24.139

APPENDIX G

PRELIMINARY ALLOWANCE LIST DATA ELEMENTS

LMI Format Block #	LMI Provisioning Data Product (PDP) Description	DEN #	LMI PDP Dictionary #
MANDATORY PROVISIONING DATA PRODUCTS:			
- Required for All Items			
A-1	**Provisioning Contract Control Number (PCCN)**	C011	870
A-2	**Provisioning List Item Sequence Number (PLISN)**	E038	890
A-5	**Commercial and Government Entity Code (CAGE)**	C035	140
A-6	**Reference Number**	D001	1050
A-11	**Essentiality Code (EC) (Must be 1, 3, 5, 7)**	C008E	280
A-12	**Item Name**	C004	480
B-22	**Source Maintenance and Recoverability Code (SM&R)**	D012/D013A D013B/D013C D012A	1220
B-23	**Demilitarization Code (DMIL)**	D017	230
B-26	**Controlled Inventory Item Code (CIIC)**	C017	180
C-32	**Quantity Per Assembly**	D011	930
C-33	**Quantity Per End Item**	D011	950
A-4	**Indenture Code (HM&E, Ordnance)***	-------	370
D-44	**Reference Designation (Electronics)***	D004	1030
	* Indenture Code or Reference Designation must be assigned.		
CONDITIONALLY MANDATORY PROVISIONING DATA PRODUCTS:			
- Required if item is new (No NSN)			
B-19	**U/I Price**	B053	1500
B-24	**Production Lead Time (PLT)**	B010A	830
C-34	**Maintenance Replacement Rate I (MRRI)**	F001/F027	560
- Required if item is new (No NSN) and a Depot Level Repairable (DLR)			
E-65	**Remain In Place Indicator (RIP)**	F078	*
E-60	**Designated Rework Point (DRP)**	F016	*
- Required if item is new (No NSN) and Source Code = "PC"			
A-13	**Shelf Life (SL)**	C028	1190
A-14	**Shelf Life Action Code (SLAC)**	C029	1200
- Required if item is new (No NSN) and Unit of Issue is non-definitive			
B-16	**Unit of Measure (UM)**	C054C	1510

PRELIMINARY ALLOWANCE LIST DATA ELEMENTS

LMI Format Block #	LMI Provisioning Data Product (PDP) Description	DEN #	LMI PDP Dictionary #
	DEFAULTED PROVISIONING DATA PRODUCTS:		
	- Submit if other than Default Value		
A-7	**Reference Number Category Code (RNCC);** Default = "5"	D024	1060
A-8	**Reference Number Variation Code (RNVC);** Default = "1"	D006	1070
A-9	**Document Availability Code (DAC);** Default = "5"	D001B	*
B-18	**Unit of Issue (U/I);** Default = "EA"	C005	1470
B-27	**Precious Metal Indicator Code (PMIC);** Default = "A"	C411	790
D-52	**Minimum Replacement Unit (MRU);** Default = "1"	C007	*
E-62	**Acquisition Method Code (AMC);** Default = "5"	D025E	*
E-63	**Acquisition Method Suffix Code (AMSC);** Default = "Q"	D025F	*
	OPTIONAL PROVISIONING DATA PRODUCTS:		
	- Submit if Available or Applicable		
B-15	**National Stock Number (NSN) and Related Data**	D046D	680
A-5/6	**Additional CAGE/Reference Number(s)**	C035/	1050
	Limit to a maximum of three additional numbers.	D001	
D-43	**Usable On Code (UOC)**	-------	1560
D-50	**Allowance Item Code (AIC);** (See Note 1)	-------	010
D-51	**Allowance Item Quantity (AIC QTY);** (See Note 1)	-------	020

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* Provisioning Data Product (PDP) is not defined in the LMI Performance Specification. It is a Supplemental Provisioning Data Product and is defined in LMI Worksheet Attachment 1 (Appendix A of the Program Manager's Guide (PMG).

NOTES to TSA/ISEA:

(1) The Allowance Item Code and Allowance Item Quantity should be limited to the same values used for APLs, e.g. PMS Overrides, MAMs, OSI, approved ACIM overrides, etc. Since the PAL will contain all the necessary data to perform COSAL/SNAP II computations, the Allowance Item Code/Allowance Item Quantity should not be used for SRI overrides, other than ACIM. The Allowance Item Code/Allowance Item Quantity will load either the Allowance Factor Code, Allowance Note Code, or the Technical Override Code and the respective quantity.

APPENDIX H

Provisioned Item Orders (NAVSEA) (Feb 1994) and Guidance for Completion of Standard Form 26, Award/Contract

(a) General. The Contractor agrees that it will furnish the supplies or services ordered by the Government in accordance with the procedures specified herein. Orders will be placed by the Contracting Officer, Provisioning Activity, or Administrative Contracting officer as unilateral or bilateral modifications to this contract on SF 30, Amendment of Solicitation/Modification of Contract. Any amounts shown in Section B at time of award of the initial contract for each provisioned line item are estimated amounts only and are subject to upward or downward adjustment by the issuing activity. If no amounts are shown, funding will be obligated before or at time of order issuance. It is understood and agreed that the Government has no obligation under this contract to issue any orders thereunder.

(b) Priced Orders. For each proposed order, the Contractor agrees that it will submit a signed SF 1411 (Contract Pricing Proposal) or such other cost or pricing data as the Contracting Officer may require. Promptly thereafter, the Contractor and the Contracting Officer shall negotiate the price and delivery schedule for the proposed order. Upon execution and receipt of the priced order, the Contractor shall promptly commence the work specified in the order.

(c) Undefinitized Orders. Whenever the Contracting Officer determines that urgent demands or requirements prevent the issuance of a priced order, he/she may issue an unpriced order. Such order may be unilateral or bilateral and shall establish a limitation of Government liability, a maximum ceiling amount, and a schedule for definitization, as described in subparagraph (e) (2) below. Upon request the Contractor shall submit a maximum ceiling amount proposal before the undefinitized order is issued. The maximum ceiling amount is the maximum price at which the order may be definitized. The contractor shall begin performing the undefinitized order upon receipt, except as provided in paragraph (d) below. The clause entitled "PRICE CEILING" (DFARS 252.217-7027) shall be included in any undefinitized order.

(d) Rejection of Unilateral Orders. The Contractor may reject any unilateral order if the Contractor determines that it cannot feasibly perform the order, or if the Contractor does not concur with the maximum ceiling amount. However, each unilateral order shall be deemed to have been accepted by the Contractor unless within fifteen days of issuance of the order, the Contractor notifies the Contracting Officer in writing of its rejection of the order.

(e) Definitization of Undefinitized Orders. (1) The Contractor agrees that following the issuance of an undefinitized order, it will promptly begin negotiating with the Contracting Officer the price and terms of a definitive order that will include: (A) all clauses required by regulation on the date of the order; (B) all clauses required by law on the date of execution of the definitive order; and, (C) any other mutually agreeable clauses, terms, and conditions. No later than sixty (60) days after the undefinitized order is issued, the Contractor agrees to submit a cost proposal with sufficient data to support the accuracy and derivation of its price; and, when required by FAR, cost or pricing data, including SF 1411. If additional cost information is available prior to the conclusion of negotiation, the Contractor shall provide that information to the Contracting Officer. The price agreed upon shall be set forth in a bilateral modification to the order. In no event shall the price exceed the maximum ceiling amount specified in the undefinitized order.

(2) Each undefinitized order shall contain a schedule for definitization which shall include a target date for definitization and dates for submission of a qualifying proposal, beginning of negotiations

and, if appropriate, submission of make-or-buy and subcontracting plans and cost or pricing data. Submission of a qualifying proposal in accordance with the definitization schedule is a material element of the order. The schedule shall provide for definitization of the order by the earlier of:

(i) a specified target date which is not more than 180 days after the issuance of the undefinitized order. However, that target date may be extended by the Contracting Officer for up to 180 days after the Contractor submits a qualifying proposal as defined in DFARS 217.7401; or

(ii) the date on which the amount of funds expended by the Contractor under the undefinitized order exceed fifty percent (50%) of the order's maximum ceiling amount, except as provided in subparagraph (f) (3) below.

(3) If agreement on a definitive order is not reached within the time provided pursuant to subparagraph (e) (2) above, the Contracting Officer may, with the approval of the Head of the Contracting Activity, determine a reasonable price in accordance with Subpart 15.8 and Part 31 of the FAR, and issue a unilateral order subject to Contractor appeal as provided in the "DISPUTES" clause (FAR 52.233-1). In any event, the Contractor shall proceed with completion of the order, subject to the "LIMITATION OF GOVERNMENT LIABILITY" clause (FAR 52.216-24).

(f) Limitation of Government Liability. (1) Each undefinitized order shall set forth the limitation of Government liability, which shall be the maximum amount that the Government will be obligated to pay the Contractor for performance of the order until the order is definitized. The Contractor is not authorized to make expenditures or incur obligations exceeding the limitation of Government Liability set forth in the order. If such expenditures are made, or if such obligations are incurred, they will be at the Contractor's sole risk and expense. Further, the Limitation of Government Liability shall be the maximum Government liability if the order is terminated. The "LIMITATION OF GOVERNMENT LIABILITY" clause shall be included in any undefinitized order.

(2) Except for undefinitized orders for Foreign Military Sales; purchases of less than $25,000; special access programs; and Congressionally-mandated long-lead procurements; and except as otherwise provided in subparagraph (f) (3) below, the limitation of Government liability shall not exceed fifty percent (50%) of the ceiling amount of an undefinitized order. In the case of orders within these excepted categories, the procedures set forth herein shall be followed to the maximum extent practical.

(3) If the Contractor submits a qualifying proposal (as defined in DFARS 217.7401) to definitize an order before the Contractor has incurred costs in excess of fifty percent (50%) of the ceiling amount, the Contracting Officer may increase the limitation of Government liability to up to seventy-five percent (75%) of the maximum ceiling amount or up to seventy-five percent (75%) of the price proposed by the Contractor, whichever is less.

(4) If at any time, the Contractor believes that its expenditures under an undefinitized order will exceed the limitation of Government liability, the Contractor shall so notify the Contracting Officer, in writing, and propose an appropriate increase in the limitation of Government liability of such order. Within thirty (30) days of such notice, the Contracting Officer will either (i) notify the Contractor in writing of such appropriate increase, or (ii) instruct the Contractor how and to what extent the work shall be continued; provided, however, that in no event shall the Contractor be obligated to proceed with work on an undefinitized order beyond the point where its costs incurred plus a reasonable profit thereon exceed the limitation of Government liability, and provided also that in no event shall the Government be obligated to

pay the Contractor any amount in excess of the limitation of Government liability specified in any such order prior to establishment of firm prices.

(g) Initial Spares. The limitation set forth in paragraph (c) and subparagraphs (e) (2), (f) (2), and (f) (3) do not apply to undefinitized orders for the purchase of initial spares.

(h) Terminal Date for Placement of Orders. The Contractor shall not be obligated to accept any orders placed thereunder beyond 180 days after delivery of the last end item.

(i) Segregation of Costs. The Contractor shall segregate the costs of performance of each undefinitized order from the cost of any other work performed by the Contractor.

Guidance for Completion of Standard Form 26, "Award/Contract"

Hardware contracts should establish separate Contract Line Item Numbers (CLINs) for procurement of systems support and spare parts, which may include:

- On Board Repair Parts (OBRPs)
- Maintenance Assistance Modules (MAMs)
- Installation and Checkout (INCO) spares
- System Stock or Replenishment

The following sections of Standard Form 26, "Award/Contract" should be completed:

Section B, "Supplies or Services and Prices/Costs." This establishes the specific CLINs with the Quantity/Unit, Unit Price, and Amounts completed with "To Be Determined (TBD)" or "To Be Negotiated (TBN)." This will give the Government the opportunity to determine material requirements and to compute allowances for interim funded outfitting and interim funded replenishment spares. Separate CLINs may also be established for different appropriations to be charged for the items.

If the Supply Management Representative at the Naval Inventory Control Point is to exercise this option, the CLIN(s) should indicate "NAVICP OPTION."

Section C, "Description, Specifications/Work Statement." This section summarizes the purpose of the CLINs and should refer to MIL-STD-1388-2B (Logistic Support Analysis Record (LSAR)) and Section H.

Section F, "Deliveries or Performance." Since delivery dates will not yet be established, the fields for Destination and Delivery Date for each CLIN should indicate "As specified, if and to the extent Option is exercised."

Section H, "Special Contract Requirements." Section H-14 and H-15 consist of standard contract pricing, enforcement, and liability provisions related to invoking the PIO clause.

APPENDIX I

Definitions

Definitions. For the purpose of this addendum, the following definitions shall apply.

Acquisition Phases

(a) Phase 0: Concept Exploration - This phase consists of competitive, short-term studies to define and evaluate the feasibility of alternative concepts.

(b) Phase I: Program definition and Risk Reduction - The period during which prototyping, demonstrations and early operational assessments shall be considered as necessary to reduce risk.

(c) Phase II: Engineering and Manufacturing Development - The period during which the most promising design approach is translated into a stable, producible, supportable and cost effective design; the production process is validated; and system capabilities are demonstrated through testing. Low-Rate Initial Production (LRIP) occurs while the E&MD phase is still continuing as test results and design fixes or upgrades are incorporated.

(d) Phase III: Production, Fielding/Deployment and Operational Support - The objectives of this phase are to achieve operational capability that satisfies mission needs. Developmental Test & Evaluation (DT&E) and Initial Operational Test & Evaluation (IOT&E) shall be resolved and fixes verified. During fielding/deployment and throughout operational support, the potential for modifications to the fielded/deployed system continues.

Actual manufacturer - An individual, activity, or organization that performs the physical fabrication process that produce the deliverable part or other items of supply for the Government. The actual manufacturer must produce the part in-house. The actual manufacturer may or may not be the design control activity.

Advance Repairable Identification Code (RIC). An Advance RIC is a document/record consisting of an alpha-numeric designator and the item nomenclature, and serves as a place holder in the Weapon Systems File until provisioning has been completed. Advance RIC assignment usually begins 2 months prior to delivery/installation of the end item. The Advance RIC will become an APL having the same alpha-numeric designator (RIC) after provisioning has been completed and a PAL may be an intermediate step, which will also be identified by the same alpha-numeric designator (RIC).

Allowance Parts List. A document/record that lists the technical characteristics of a piece of equipment, the logistic and support information, and the applicable maintenance significant repair parts for the system/equipment.

Assembly. A number of parts or subassemblies or any combination thereof joined together to perform a specific function and capable of disassembly.

Examples: Power shovel - front, fan assembly, audio frequency amplifier, pump-rotating element.

NOTE: The distinction between an assembly and a subassembly is determined by the individual application. An assembly in one instance may be a subassembly in another where it forms a portion of a higher level assembly.

Attaching part. An item used to attach assemblies or parts to the equipment or to each other.

Commercial Items (CI). Any items, other than real property, customarily used for nongovernmental purposes that have been offered and/or sold, leased or licensed to the general public; This includes items that:

(a) through advances in technology or performance, are not yet available in the commercial market, but will be available in time to meet the delivery requirements;

(b) may incorporate modifications customarily available in the commercial market or minor modifications made to meet DOD requirements;

(c) are customarily combined and sold in combination to the general public;

(d) are for installation, maintenance, repair, training and other services procured to support an item if those services are offered to the general public and the Federal Government simultaneously and under similar terms and conditions, and the work force providing those services is the same used for providing such services to the general public;

(e) are services offered and sold competitively in substantial quantities in the commercial market based on established catalog or market prices for specific tasks performed and under standard commercial terms and conditions;

(f) are transferred between or among separate divisions, subsidiaries, or affiliates of a contractor; or

(g) are nondevelopmental, if the procuring agency determines the items were developed exclusively at private expense and sold in substantial quantities on a competitive basis to multiple State and local governments.

Commercial Off-The-Shelf (COTS). A special type of commercial item that includes any item, other than real property, that is:

(a) of a type customarily used by the general public for nongovernmental purposes, and that has been sold, leased, or licensed to the general public;

(b) sold, leased, or licensed in substantial quantities in the commercial marketplace; and

(c) offered to the Government, without modification, in the same form in which it is sold, leased, or licensed in the commercial marketplace. Standard options are not modifications.

Commercial Part of Item. A part or item which is manufactured primarily for the commercial rather than the military market and having both commercial and military applications. Commercial parts also include parts which are manufactured in accordance with normal commercial quality controlled production runs which meet or exceed the requirements of Government specifications or standards. The item is available in the commercial market.

Common and Bulk Items List (CBIL). This data consists of those items that are difficult or impractical to include in the topdown/disassembly sequence Provisioning Parts List (PPL), but for which provisioning is essential to support the operation of the end item/equipment. These items are subject to wear or failure, or otherwise required for maintenance, including planned maintenance, of the end item/equipment.

Component. An assembly or any combination of parts, subassemblies and assemblies mounted together normally capable of independent operation in a variety of situations.

Component Identification Data. This data describes the equipment or system being provisioned, the purchase data, SPS data for GFE and CFE, and Data Certification information. CID is used to deliver Provisioning Header Data, Statements of Prior Submission (SPS), and the data required to request an Advance RIC. This

data was formerly provided to the Government using the NAVSEA Cover Page (NAVSEA Form 4423/3) for CFE or a hard copy letter for GFE.

Concurrent Delivery. The delivery of support items concurrently with the end item being provisioned.

Configuration-Worthy. An item is considered to be configuration-worthy if one or more of the following criteria is met:

a. It requires any one of the following elements of logistics support: supply support, test equipment, technical manuals and/or repair standards, Planned Maintenance System (PMS), intermediate and depot level maintenance plans or drawings (e.g., installation or configuration control drawings and selected records). Expanding this list to include other elements of logistics support, such as training, is in process.

b. Logistics support information (e.g., nameplate data, technical characteristics data, component drawings) supports all levels of maintenance (organizational, intermediate, or depot), and modernization (planning and execution).

c. It is needed to describe a ship's functional hierarchy.

Contract Data Requirements List (CDRL), DD Form 1423. A form used as the sole list of data and information which the contractor will be obligated to deliver under the contract, with the exception of that data specifically required by standard Defense Federal Acquisition Regulation (DFAR) clauses.

Contractor. Any individual, partnership, public or private corporation, association, institution, or other entity which enters into a specific contract with the Government to provide supplies or services.

Contractor Furnished Equipment (CFE). A term applied to designate equipment or components that the contractor provides, either manufacturing it himself or procuring it from vendors or the manufacturer.

Corrective Maintenance. All actions performed as a result of failure to restore an item to a specified condition. Corrective maintenance can include any or all of the following steps: Localization, Isolation, Disassembly, Interchange, Reassembly, Alignment, and Checkout.

Data Item Description (DID), DD Form 1664. A form used to define and describe the data required to be furnished by the contractor. Completed forms are provided to contractors in support of and, for identification of, each data item listed on the CDRL.

Data Product Deliverables. A generic term which refers to various types of provisioning data categories including:

(a) Provisioning Parts List (PPL)
(b) Long Lead Time Items List (LLTIL)
(c) Repairable Items List (RIL)
(d) Interim Support Items List (ISIL)
(e) Tools and Test Equipment List (TTEL)
(f) Common and Bulk Items List (CBIL)
(g) Design Change Notices (DCN)
(h) Post Conference List (PCL)

(i) System Configuration Provisioning List (SCPL)
(j) Ship Level Provisioning Parts List (SLPPL)
(k) Component Identification Data (CID)

Days. Shall mean calendar days, including Saturdays, Sundays, and holidays.

Design Change. A Government approved engineering change incorporated into the end item which modifies, adds to, deletes, or supersedes parts in the end item.

Design Change Notice (DCN). A formal document prepared by a contractor or a Government activity to notify the Technical Support Activity of changes to previously delivered provisioning lists which add to, delete, supersede or modify items which are approved for incorporation into the end item.

Developmental Items (DI). Those that have not been previously designed and require Research and Development (R&D). These items fulfill an identified need for the military. In addressing "new start" programs, the Services should attempt to use an existing or modified U.S. military, allied military, or commercially developed system prior to initiating an R&D program. If R&D is required, a cooperative R&D program with one or more allied nations should be considered. Otherwise, a new joint service development program should be considered. A new service-unique program should be considered only as a final alternative.

Disassembly. Disassembly breakdown is the sequence of tear-down (taking apart) of the end item step-by-step to the level of the next smaller unit to the lowest removable/replaceable part. This breakdown shall consist of the end item, including all components, listing every assembly, subassembly and part, which can be disassembled, reassembled and/or replaced. All parts shall be listed in their disassembly relation to the end item, component or assembly in which contained and to their own further subassemblies and parts. This relationship is shown by means of the indenture code. The indenture code indicates that the item is either associated with, contained in, or part of, the preceding item identified with an indenture code of the preceding alpha character.

Drawing. A generic term which includes Engineering drawings prepared in accordance with MIL-STD 100F, SMEA Y14.24M, and SMEA Y14.34M, aperture cards in accordance with MIL-C-9877, graphs, or diagrams, industry standards and industry specifications, on which details are represented with sufficient information to define completely, directly or by reference, the end result in the selection, procurement, and manufacture of the item required.

End Article. A component, assembly, or subassembly being procured as the principal item on the contract.

End item. A final combination of end products, component parts, or materials which is ready for its intended use; e.g., ship, tank, mobile machine shop, aircraft, receiver, recorder, or support equipment.

End Product. An item, either an individual part or assembly, in its final or completed state.

Engineering Data for Provisioning (EDFP). Data acquired by contract to support LMI supportability analysis. This data is necessary for the assignment of Source, Maintenance, and Recoverability (SMR) codes to each Provisioning List Item Sequence Number (PLISN) on the provisioning list. EDFP is also used for assignment of Item Management Codes, prevention of proliferation of identical items in the Government inventory, maintenance decisions, and item identification necessary in the assignment of a National Stock Number (NSN).

Essentiality Code (EC). ECs are codes used to indicate the degree to which the failure of the part will affect the ability of the end item to perform its intended operation. ECs authorized for use with Navy systems and equipment are 1, 3, 5, and 7.

Facilities. The permanent or semi-permanent real property assets required to support the material system, including conducting studies to define types of facilities or facility improvements, locations, space needs, environmental requirements, and equipment. One of the principal elements of ILS.

General Conference. A conference that may be held at any time during the life of the contract for the purpose of resolving provisioning problems.

Goals. Values, or a range of values, apportioned to the various design, operational, and support elements of a system which are established to optimize the system requirements.

Government Furnished Equipment (GFE). A term applied to designate equipment or components that the government provides for installation in the end item to be delivered or for system production testing.

Guidance Conference. A conference used to ensure that the contractor and the Government have a firm understanding of the contractual provisioning requirements, establish funding and task milestones, and formulate firm commitments for optional requirements in accordance with applicable data requirements.

Integrated Logistic Support (ILS). A disciplined approach to the activities necessary to: (1) cause support considerations to be integrated into system and equipment design; (2) develop support requirements that are consistently related to design and to each other; (3) acquire the required support; and (4) provide the required support during the operational phase at minimum cost.

Interactive Computer Aided Provisioning System (ICAPS). ICAPS is a software package designed to automate the contractor development and submission of PTD, the In-Service Engineering Activity (ISEA) or Technical Support Activity (TSA) review and acceptance of PTD, and NAVICP review and receipt of PTD. ICAPS is comprised of two software packages: a PC version which runs on any MS-DOS compatible computer, and a mainframe version which runs on the NAVICP production system. The software provides data entry screens for data input, various capabilities/utilities to manipulate the data, and the ability to input/output the data in correct LMI required format.

Interchangeability Code. A code that indicates the relationship of items and is normally used with Design Change Notices (DCNs). It represents the relationship of an existing item being replaced by a new item. Examples include one-way (OW), two-way (TW), not-existing item (NI) and not-new item (NR).

Interim Release. Authorization given a contractor to release support items to production or procurement prior to receipt of a provisioned item order (PIO).

Interim Supply Support Conference (ISSC). A conference for the Government to review, select and approve those items recommended for interim support (i.e., contractor supply/logistics support) by the contractor as cost effective for advance procurement prior to the time provisioning for operational requirements has been accomplished and a provisioned item order (PIO) has been provided.

Interim Support Items List (ISIL). This data consists of those support items required between operational need date and the point in time that provisioning for operational requirements has been accomplished.

Long Lead Time Items (LLTI). Those items which because of their complexity of design, complicated manufacturing process, or limited production capacity cause extended production or procurement cycle which would preclude delivery in time to meet operational need date if not ordered in advance of normal provisioning.

Long Lead Time Items List (LLTIL). This data consists of those items which, because of their complexity of design, complicated manufacturing process or limited production capacity, may cause production or procurement cycles which would preclude timely and adequate delivery, if not ordered in advance of normal provisioning.

Long Lead Time Items Provisioning Conference (LLTIPC). A conference for the Government personnel to review and select the long lead time items required for support of the end item. Interim Release Items may be reviewed during this conference.

Maintainability. The measure of the ability of an item to be retained in or restored to specified condition when maintenance is performed by personnel having specified skill levels, using prescribed procedures and resources, at each prescribed level of maintenance and repair.

Maintenance Levels. The basic levels of maintenance into which all maintenance activity is divided. The scope of maintenance performed within each level must be commensurate with the personnel, equipment, technical data, and facilities provided.

Maintenance Planning. The process conducted to evolve and establish maintenance concepts and requirements for a material system. One of the principal elements of ILS.

NonDevelopmental Item (NDI). Any item "not requiring development." A NonDevelopmental Item consists of :

(a) any previously developed item used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the U.S. has a mutual defense cooperation agreement. This includes defense products previously developed by U.S. military services or defense agencies of U.S. allies

(b) any item described above that requires only minor modification to meet the requirements of the procuring agency.

(c) Any item currently being produced that does not meet the requirements listed above solely because the item is not yet in use.

Objectives. Qualitative and quantitative values, or range of values, apportioned to the various design, operational, and support elements of a system which represent the desirable levels of performance. Objectives are subject to tradeoffs to optimize system requirements.

Part. One piece, or two or more pieces, joined together which are not normally subject to disassembly without destruction or impairment of designed use.

Part Number. See reference number.

Post Conference List (PCL). This data consists of those items selected for the operations, maintenance and support of the system/end article as a result of the Provisioning Conference review.

Preliminary Allowance List (PAL). A PAL is a document/record consisting of preliminary provisioning information, and is published in Allowance Parts List (APL) format when provisioning has not been completed prior to delivery/installation of the end item. PAL assignment usually begins six months prior to

delivery and continues until two months prior to delivery of the end item. The PAL will become an APL having the same alpha-numeric designator (RIC) after provisioning has been completed.

Preventive Maintenance. All actions performed in an attempt to retain an item in specified condition by providing systematic inspection, detection, and prevention of incipient failures.

Prime Provisioning Activity (PPA). See Technical Support Activity (TSA).

Procuring Activity. The activity which awards contracts for deliverable hardware, software, firmware, courseware and/or data.

Provisioned Item Order (PIO). A formal requirements document furnished to the contract administration activity to identify items to be bought through the provisioning process on a contract, providing the specific items to be ordered, the estimated cost, and the required delivery schedule and destination. The PIO is provided with other formal contract documentation to the contractor to place items on order. The PIO is an unpriced order.

Provisioning. The process of determining and acquiring the range and quantity (depth) of support items (for example, spares and repair parts plus support and test equipment) required to operate and maintain an end item of material for an initial period of service.

Provisioning Conference. A conference for reviewing PTD/EDFP, and for Government validation of support items and the assignment of technical and management codes assigned by the Technical Support Activity.

Provisioning Data Product Deliverables. See Data Product Deliverables.

Provisioning Data Products (PDP). The individual data items listed on the LMI Worksheet.

Provisioning Methods. Method by which the Technical Support Activity (TSA) will make provisioning decisions. The method will be specified in the provisioning requirements. The following provisioning methods are applicable:

(a) Resident Provisioning Team (RPT) Method - This method employs a Government team permanently assigned at the contractor's facility skilled in the functions of provisioning control, source, maintenance, and recoverability coding, requirements determination, cataloging, etc.

(b) Conference Team Method - This method employs Government representatives at the contractor's or vendor's facility. The conference team is not permanently assigned to the contractor's facility.

(c) In House Method - The Government conducts provisioning at the PPA or at the Technical Support Activity or other location specified by the prime Technical Support Activity. Contractor participation will be specified by the PPA.

Provisioning Parts List (PPL). This list structured at the end item, component, or assembly level as specified by the PA, contains the end item, component, or assembly equipment and all support items which can be disassembled, reassembled, or replaced, and which, when combined, constitute the end item, component, or assembly equipment.

Provisioning Parts List Index (PPLI). The PPLI is a listing by manufacturer's reference numbers of all items listed in the Provisioning Parts List (PPL) cross-referenced to each item's Provisioning List Item Sequence Number (PLISN).

Provisioning Performance Schedule (PPS). Checklist of events including schedules in the provisioning process that is used to monitor such events.

Provisioning Preparedness Review Conference. This conference is held for the Government to determine the adequacy of the provisioning documentation, facilities, and the overall preparations made by the contractor to conduct a provisioning conference.

Provisioning Technical Documentation (PTD). PTD is the generic term used to reference the various types of provisioning data. This term is used by the DOD components for the identification, selection, and determination of initial requirements and cataloging of support items to be procured through the provisioning process. Applicable PTD consists of EDFP, CID, and various Data Product Deliverables including:

(a) Provisioning Parts List (PPL)
(b) Long Lead Time Items List (LLTIL)
(c) Repairable Items List (RIL)
(d) Interim Support Items List (ISIL)
(e) Tools and Test Equipment List (TTEL)
(f) Common and Bulk Items List (CBIL)
(g) Design Change Notices (DCN)
(h) Post Conference List (PCL)
(i) System Configuration Provisioning List (SCPL)
(j) Ship Level Provisioning Parts List (SLPPL)
(k) Component Identification Data (CID)

Reference Designators. A method used for uniquely identifying and locating discrete items/parts on diagrams and in a set; for correlating items in a set, graphic symbols on diagrams, items on a parts list circuit description and instructions. The three methods used for applying reference designations are Unit Numbering, Location Numbering and Location Coding methods.

Reference Number. Any number, other than a Government activity stock number, used to identify an item of production or, used either by itself or in conjunction with other reference numbers, to identify an item of supply. Reference numbers include manufacturer's part, drawing, model, type, source controlling numbers, and the manufacturer's trade name; specification or standard numbers; and specification or standard part, drawing, or type numbers.

Reliability. (1) The duration or probability of failure-free performance under stated conditions. (2) The probability that an item can perform its intended function for a specified interval under stated conditions. (For non-redundant items this is equivalent to definition (1). For redundant items this is equivalent to mission reliability.)

Reliability Centered Maintenance. A systematic approach for identifying preventive maintenance tasks for an equipment end item in accordance with a specified set of procedures and for establishing intervals between maintenance tasks.

Repair Analysis Summary. This report summarizes the conclusions and recommendations of the repair level analysis.

Repair Parts. Those support items that are an integral part of the end item of system which are coded as non-repairable.

Repairable Identification Code (RIC). An alpha-numeric designator assigned to a repairable item identifying it to items of a lower level (piece parts). It is used as an Allowance Parts List (APL) or an Allowance Equipage List (AEL) number. The RIC is assigned by NAVICP.

Repairable Items List (RIL). This data consists of all support items of a repairable nature and used in or associated with the end item.

Replacement Factor (RF). The RF represents the best estimate of the replacement rate for an item per application per year. When a RF is provided to the contractor by the Government, that factor shall be used for preparing PTD.

Requiring Authority. That activity (Government, contractor, or subcontractor) which levies LMI analysis requirements on another activity (performing activity) through a contract or other document of agreement.

Scheduled Maintenance. Preventive maintenance performed at prescribed points in the item's life.

Source, Maintenance and Recoverability (SMR) Codes. Uniform codes assigned to all support items early in the acquisition cycle to convey maintenance and supply instructions to the various logistic support levels and using commands. They are assigned based on the logistic support planned for the end item and its components. The uniform code format is composed of three, two character parts; Source Codes, Maintenance Codes, and Recoverability Codes in that order.

Spares. Those support items that are an integral part of the end item or system which are coded as repairable.

Special Tools, Test Equipment, Support Equipment. Tools, test equipment, and support equipment that have single or peculiar application to a specific end item.

Standardization. The process by which member nations achieve the closest practicable cooperation among forces; the most efficient use of research, development, and production resources; and agree to adopt on the broadest possible basis the use of: (1) common or compatible operational, administrative, and logistics procedures; (2) common or compatible technical procedures and criteria; (3) common, compatible, or interchangeable supplies, components, weapons, or equipment; and (4) common or compatible tactical doctrine with corresponding organizational compatibility.

Statement of Prior Submission (SPS). A certification by the contractor/subcontractor that PTD previously submitted to the Government satisfies the PTD requirements of the solicitation or the provisioning requirements submitted after award of the contract with or without changes to update the PTD to the end item configuration being procured. The SPS applies to the end item or to any component thereof. The SPS is submitted to the government using CID.

Subassembly. Two or more parts which form a portion of an assembly or a component replaceable as a whole, but having a part or parts which are individually replaceable. (Examples: Gun mount stand, window recoil

mechanism, floating piston, telephone dial, IF strip, mounting board with mounted parts, power shovel dipper stick.)

Subcontractor. A contracting entity that furnishes supplies or service to or for a prime contractor or another subcontractor.

Supplementary Provisioning Technical Documentation (SPTD). See Engineering Data For Provisioning (EDFP).

Supply Support. All management actions, procedures, and techniques required to determine requirements for, acquire, catalog, receive, store, transfer, issue, and dispose of secondary items. This includes provisioning for initial support as well as replenishment supply support. One of the principal elements of ILS.

Support Concept. A complete system level description of a support system, consisting of an integrated set of ILS element concepts, which meets the functional support requirements and is in harmony with the design and operational concepts.

Support Equipment. All equipment (mobile or fixed) required to support the operation and maintenance of a material system. This includes associated multi-user end items, ground handling and maintenance equipment, tools, metrology and calibration equipment, communications resources, test equipment and automatic test equipment, with diagnostic software for both on and off equipment maintenance. It includes the acquisition of logistics support for the support and test equipment itself. One of the principal elements of ILS.

Support Items. Items subordinate to, or associated with, an end item (i.e., spares, repair parts, tools, test equipment, and sundry materials) and required to operate, service, repair, or overhaul an end item.

Support Plan. A detailed description of a support system covering each element of ILS and having consistency between the elements of ILS. Support plans cover lower hardware indenture levels and provide a more detailed coverage of maintenance level functions than support concepts.

Support Resources. The material and personnel elements required to operate and maintain a system to meet readiness and sustainability requirements. New support resources are those which require development. Critical support resources are those which are not new but require special management attention due to schedule requirements, cost implications, known scarcities, or foreign markets.

Support System. A composite of all the resources that must be acquired for operating and maintaining a system or equipment throughout its life cycle.

Supportability. A measure of the degree to which all resources required to operate and maintain the system/equipment can be provided in sufficient quantity. Supportability encompasses all elements of ILS, as defined in DoDI 5000.2.

Supportability Analysis Summaries. These summaries provide information for planning, assessing program status, and decision making by the government relative to various logistics disciplines.

System Configuration Provisioning List (SCPL). This data establishes the family tree relationship of components to end item when associated PLs are developed at a component level. It also includes components which will be government furnished and separately provisioned.

System/Equipment. The item under analysis, be it a complete system, or any portion thereof being procured.

Tailoring. The process by which the individual requirements (sections, paragraphs, or sentences) of the selected specifications and standards are evaluated to determine the extent to which each requirement is most suitable for a specific material acquisition and the modification of these requirements, where necessary, to assure that each tailored document invoked states only the minimum needs of the Government.

Task. A single unit of specific work behavior with clear beginning and ending points and directly observable or otherwise measurable process, frequently, but not always resulting in a product that can be evaluated for quantity, quality, accuracy, or fitness in the work environment. A task is the lowest level of behavior in a job that describes the performance of a meaningful function in the job under consideration.

Technical Data. Recorded information regardless of form or character (e.g., manuals, drawings) of a scientific or technical nature. Computer programs and related software are not technical data; documentation of computer programs and related software are. Also excluded are financial data or other information related to contract administration. One of the principal elements of ILS.

Technical Replacement Factor (TRF). This represents the replacement rate for an item based on the number of expected failures which require removal and replacement of the support item at the organizational or intermediate maintenance level in a next higher assembly per equipment/end item per year.

Technical Support Activity (TSA). The Naval Sea Systems Command (NAVSEA) activity designated by a NAVSEA Program Manager to perform the technical and engineering functions associated with provisioning a system or equipment.

Tools and Test Equipment. Those support items that are not an integral part of the end item but are required to inspect, test, calibrate, service, repair, or overhaul an end item. Tools and test equipment are a subset of support equipment.

Tools and Test Equipment List (TTEL). The list consisting of support equipment required to inspect, test, calibrate, service, repair, or overhaul an end item.

Topdown. Topdown is accomplished by sequencing all parts comprising the end item in a lateral and descending "family tree/generation breakdown." This breakdown shall consist of the end item including all components, listing every assembly, subassembly and part which can be disassembled, reassembled, and/or replaced. All parts shall be listed in their relation to the end item, component, assembly, or installation system in which they are contained and to their own further sub/subassemblies and parts. This relationship is shown by means of the indenture code. The indenture code indicates that the item is either associated with, contained in, or part of, the preceding item identified with an indenture code of the preceding alpha character.

Unscheduled Maintenance. Corrective maintenance required by item conditions.

Vendor Item. An item which is used in or attached to the end item produced by the contractor and which is procured by the contractor on the open market or from established sources and for which the contractor is not the design activity.

APPENDIX J

Acronym Listing

AIC	Allowance Item Code
APL	Allowance Parts List
CAGE	Commercial and Government Entity
CANDI	Commercial And NonDevelopmental Item
CBIL	Common and Bulk Items List
CDR	Critical Design Review
CDRL	Contract Data Requirements List
CF	Contractor Furnished
CFE	Contractor Furnished Equipment
CI	Commercial Item
CID	Component Identification Data
CLIN	Contract Line Item Number
CLS	Contractor Logistic Support
COTS	Commercial Off-the-Shelf
DCN	Design Change Notice
DI	Developmental Item
DID	Data Item Description
DEMIL	Demilitarization Code
DOD	Department of Defense
DPD	Data Product Deliverable
DRPM	Direct Reporting Program Manager
DVD	Direct Vendor Delivery
EC	Essentiality Code
ECP	Engineering Change Proposal
EDFP	Engineering Data For Provisioning
EDI	Electronic Data Interchange
EMD	Engineering and Manufacturing Development
FAR	Federal Acquisition Regulation
GF	Government Furnished
GFE	Government Furnished Equipment
HM&E	Hull, Mechanical, & Electrical
HSC	Hardware Systems Command
ICAPS	Interactive Computer Aided Provisioning System
ILS	Integrated Logistics Support
IOC	Initial Operational Capability
ISIL	Interim Support Items List
IPT	Integrated Product Team
ISS	Interim Supply Support
JITS	Just In Time Support
LLTIL	Long Lead Time Items List
LMI	Logistics Management Information
LRT	Logistics Response Time
LSA	Logistic Support Analysis
MSD	Material Support Date
NAVICP	Naval Inventory Control Point

NAVSEA	Naval Sea Systems Command
NDI	NonDevelopmental Item
NICN	Navy Item Control Number
NSA	Naval Supervising Activity
NSN	National Stock Number
OEM	Original Equipment Manufacturer
ORR	Overhaul Replacement Rate
PAFOS	Provisioning, Allowance and Fitting Out Support
PAL	Preliminary Allowance List
PCCN	Provisioning Contract Control Number
PCL	Post Conference List
PDP	Provisioning Data Product
PEO	Program Executive Officer
PGC	Provisioning Guidance Conference
PIO	Provisioned Item Order
PLISN	Provisioning List Item Sequence Number
PM	Program Manager
PMG	Program Manager Guide
PMIC	Precious Metals Indicator Code
PPL	Provisioning Parts List
PR	Procurement Request
PSD	Program Support Data
PTD	Provisioning Technical Documentation
R&D	Research and Development
RBD	Reliability Block Diagram
RBS	Readiness Based Sparing
RFP	Request For Proposal
RIC	Repairable Identification Code
RIL	Repairable Items List
RIP	Remain In Place
SCLSI	Ship Configuration and Logistic Support Information
SCLSIS	Ship Configuration and Logistic Support Information System
SCPL	System Configuration Provisioning List
SL	Shelf Life
SLAC	Shelf Life Action Code
SLPPL	Ship Level Provisioning Parts List
SMR	Source, Maintenance, and Recoverability
SOW	Statement of Work
SPM	Ship Program Manager
SPS	Ships Provisioning System
SPS	Statement of Prior Submission
TDP	Technical Data Package
TRF	Technical Replacement Factor
TSA	Technical Support Activity
TTEL	Tools and Test Equipment List
WSF	Weapon Systems File