NOT MEASUREMENT SENSITIVE

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DEPARTMENT OF DEFENSE STANDARD PRACTICE

PARTS MANAGEMENT

AMSC 7730 **AREA SDMP**

FOREWORD

1. This standard is approved for use by all Departments and Agencies of the Department of Defense.

2. This standard covers the essential requirements in order to meet the mandatory standardization parts management requirements of the Defense Standardization Program (DoD 4120.24-M). Parts management is a design strategy that seeks to reduce the number of unique, specialized, and defined problem parts used in a system (or across systems) in order to enhance standardization, reliability, maintainability, and supportability. It also mitigates parts obsolescence occurrences due to diminishing manufacturing sources and material shortages (DMSMS). These inherent benefits result in increased operational and logistics readiness, enhanced interoperability, reduced logistics footprint and total ownership cost. Effective parts management helps program managers achieve their objectives.

3. This standard is in support of acquisition strategies and systems engineering practices of DoDI 5000.2, “Operation of the Defense Acquisition System.” When used in conjunction with SD-19, “Life Cycle Cost Savings Through Parts Management,” it provides definition of parts management needs in contracts, setting up a parts management process for prime contractors, suppliers and subcontractors, and identifies an efficient means of a manageable part selection process for persons, companies, and Government activities. This document is not intended for Space (e.g., satellites and launch vehicles) parts, materials, and processes applications. Other parts management and technical requirements standards have been developed for space systems high reliability applications.

4. DoD is currently developing a parts management tool for the users to access parts management information through a single point of entry. The intent of the tool is to provide engineering and material data relevant to design, parts availability, parts obsolescence, and parts program management information. This tool should aid the acquisition offices, designers, and specification preparing activities in making informed decisions on parts management programs, parts selection, and standardization. For the current status of these tools see http://www.dsp.dla.mil/.

5. Comments, suggestions, or questions on this document should be addressed to Defense Supply Center, Columbus, ATTN: DSCC-VSC, P.O. Box 3990, Columbus, OH 43218-3990 or emailed to mailto:DSCC.PartsSupport@dla.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at http://assist.daps.dla.mil.

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1. SCOPE

1.1 Scope. This standard provides requirements for the implementation of an effective Parts Management Program (PMP) on Department of Defense (DoD) acquisitions. This document supports acquisition strategies and systems engineering practices. This document also provides performance-based parts management processes and practices which are intended to be adapted to individual program needs and which provide appropriate latitude for innovative approaches and design solutions by the contractors.

1.2 Objectives. The objectives of a PMP are to reduce logistics footprint and total life-cycle cost, and to increase logistics readiness by:

a. Promoting interoperability.

b. Enhancing the interchangeability, reliability, and availability of parts.

c. Minimizing diminishing source impacts and parts obsolescence.

d. Assisting in meeting end item performance.

e. Assisting with parts selection and qualification procedures.

f. Minimizing the proliferation of parts and drawings through standardization.

1.3 Applicability. This document provides requirements for the application of a PMP to acquisition contracts for new design, modifications of DoD weapon systems, and equipment acquisition programs. Applicability of individual aspects of the requirements contained herein is dependent upon program business and support strategies, technologies used, expected service life, etc.. The components of the Off-The-Shelf (OTS) and Non-Developmental Item (NDI) equipment are not subject to parts management procedures unless the equipment is modified. When OTS and NDI equipment requires modification, only the parts proposed for the modified portion of the equipment shall be subject to the appropriate parts selection procedures described herein.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3, 4, or 5 of this standard. This section does not include documents cited in other sections of this standard or those recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, 4, or 5 of this standard, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEFENSE STANDARDIZATION PROGRAM OFFICE

SD-19	-	Life Cycle Cost Savings Through Parts Management.
SD-22	-	Diminishing Manufacturing Sources and Material Shortages (DMSMS) Guidebook.

(Copies of these documents are available online at http://assist.daps.dla.mil/quicksearch/ or http://assist.daps.dla.mil or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

FEDERAL ACQUISTION REGULATIONS (FAR)

FAR Part 2, Subpart 2.101 - Definitions.

FAR Part 46, Subpart 46.101 - Definitions.

(Copies of these documents are available online at http://www.acqnet.gov/far/ or from the Superintendent of Documents, U.S. Government Printing Office, North Capitol & "H" Streets, N.W., Washington, DC 20402-0002.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents are those cited in the solicitation or contract.

AIAA-R-100 - Recommended Practice for Parts Management

(Copies of the document are available form http://www.aiaa.org/ or AIAA Publications Customer Service, P.O. Box 960, Herndon, VA 20172-0960.)

ANSI/EIA-4899 - Standard for Preparing an Electronic Components Management Plan.

(Copies of the document are available from http://www.geia.org/ or Techstreet 777 East Eisenhower Parkway Ann Arbor, MI USA 48108.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document; however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. DEFINITIONS

3.1 Acquisition Activity (AA). The Government office or agency that is responsible for acquisition of the military system or equipment.

3.2 Bill of Material (BOM): A listing of parts and required quantities; electronic, electrical, mechanical, and materials used to identify repair parts or parts need to fabricate (produce) a system or assembly (see SD-22).

3.3 Corporate baseline. A listing of parts approved by a corporation for use in equipment design application. The contractor creates and maintains this listing.

3.4 Department of Defense (DoD) commonly available parts. Parts available in the Federal Logistics Information System with current usage in one or more applications. Current usage is indicated by a steady or upward trend with expectations that it will continue to be available for the foreseeable future. Usage information may be either from the Government or manufacturer(s) of the part. Technical data describing the salient characteristics of the part shall be available to the public. Parts constructed to proprietary use documents (i.e., source control drawings, selected item drawings, altered item drawings) are not within the scope of this definition.

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

3.6 Integrated Product Team (IPT). A team that works toward the common goal of developing or producing a military system or equipment. Individuals from various disciplines representing the military acquisition activity, Defense Logistics Agency, consulting contractor(s), prime contractor(s), sub-contractor(s), and parts suppliers may comprise this team.

3.7 Life cycle. The time contained in the period from the first contract award date through the conclusion of Government ownership of the military system or equipment.

3.8 Non-Developmental Item (NDI). System or equipment available from a wide variety of sources with little or no development effort required by the Government (see FAR 2.101).

3.9 Off-The-Shelf (OTS) Item. An item produced and placed in stock by a contractor, or stocked by a distributor, before receiving orders or contracts for its sale. The item may be commercial or produced to military or federal specifications or descriptions (see FAR 46.101).

3.10 Part. One or more pieces joined together, which are not normally subject to disassembly without destruction or impairment of intended design use.

3.11 Parts list. A listing of all parts used in design or construction of the military system or equipment. Initially, it contains those items designed into the system. Upon production, it contains those items that are incorporated into the actual unit(s) produced.

3.12 Parts Management. The practice of considering the application, standardization, technology (new and aging), system reliability, maintainability, supportability, and cost in selecting parts and addressing availability, logistics support, DMSMS, and legacy issues in supporting them throughout the life of the systems.

3.13 Parts Management Advisory Team (PMAT): A team of program and commodity specialist(s) at the Defense Logistics Agency Supply Centers, who will be available to the AA and contractor, to advise and provide recommendations on parts management plans and processes; and on the selection and use of preferred (i.e., standard and commonly used) parts.

3.14 Parts Management Plan. A contract-specific application of a contractor's corporate parts management procedures which meets the objectives of the equipment system's mission profile, support strategy, expected service life, and DoD parts management goals and objectives stated in section 1.2.

4. GENERAL REQUIREMENTS

4.1 Parts Management Program. A parts management program that meets the objectives of paragraph 1.2 shall be implemented. The comprehensive PMP is the total complex of organizations, processes, and other elements involved in the cradle-to-grave management of parts. It includes choosing, designing, acquiring, stocking, requisitioning, moving, managing, issuing, and using weapon system parts across DoD and industry. When this document is used in conjunction with SD-19, "Life Cycle Cost Savings Through Parts Management," it outlines parts management needs in contracts, parts management processes for prime contractors, suppliers, and subcontractors. General responsibilities for the contractor are identified below.

4.2 Parts Management Plan. A parts management plan responsive to the request for proposal (RFP) shall be provided. The plan shall address program management, Government participation, and parts selection throughout the system life-cycle. The contractor may include consideration of the concepts addressed in AIAA-R-100 and ANSI/EIA-4899, as well as use the PMAT (see 3.13) for advice and recommendations on parts management plans and processes. The PMAT can also provide advice on the selection and use of preferred standard and commonly used parts. Points of contact for these efforts are identified at http://www.dscc.dla.mil/programs/pmat. The contractor shall work with the AA to implement contract requirements and support the efforts of the program. The selection and application of parts are the responsibility of the contractor whose primary requirement is to meet the performance objectives of the system or equipment.

5. DETAIL REQUIREMENTS

5.1 Parts management elements. In order to manage the selection and use of parts, the contractor shall address the following elements in its proposal and parts management plan:

a. Parts selection baseline. A corporate baseline, parts selection list, or other databases shall be maintained to give visibility to designers and subcontractors of parts preferred for use in order to achieve part standardization goals over the total-life-cycle. In addition, the contractor may use Government furnished automated tools to assist in the parts selection process.

b. Parts selection and authorization process. The management and organization structure for standardization functions, the authority and responsibility for standardization policy, and procedures for authorizing new parts in design shall be included. The procedures shall identify the entity responsible for authorizing parts for use. The procedures shall also identify the structure and membership of a parts selection IPT, if applicable. Criteria used to ensure suitability of a part's intended use to the required application, order of preference used in considering new parts (see 5.2 herein), and procedures for notifying associated disciplines (inventory, purchasing, quality assurance) in case of authorization of a new part shall be included.

c. Obsolescence management. Procedures for obsolescence management which include proactive obsolescence forecasting for applicable part types (e.g., microcircuits) and plans for reacting and achieving solutions to obsolescence impacts as they occur and affect the program. SD-22 provides guidance in the area.

d. Parts list. The plan shall detail how and when the contractor submits initial and updated parts list(s) to the Government, as required by contract.

e. Subcontractor management. Contractor procedures for establishing and maintaining subcontractor participation to the extent necessary to ensure satisfaction of the parts management objectives.

f. Part and supplier quality. Provisions for assessing part suppliers and part quality such as statistical process control data, audits, past performance, etc..

g. Part level documentation procedures. Part level documentation procedures shall be detailed and consistent with the program's configuration management, logistics strategies and total-life-cycle requirements.

h. Substitute and alternative part procedures. The process for the management, definition, and documentation of substitute and alternative parts. In specifying the part replacement process, the contractor shall ensure that the program is consistent with the intent and application of systems engineering disciplines (e.g., reliability, configuration management, quality, logistics, etc.).

i. Customer-contractor teaming. The parts management plan shall address customer teaming to allow for continued insight into processes for program verification (e.g., IPT participation, technical interchange meetings, exchange of logistics data, and verification of performance metrics).

j. Additional elements (e.g. lead free, counterfeit parts, etc.). The process for addressing those additional elements, as identified by contract, shall be defined.

5.2 Parts selection, order of preference. To minimize the proliferation of parts and the logistics spare parts sustainment cost for DoD, parts standardization and selection shall be considered a key objective in parts selection. The selection of parts that are readily available within the DoD system, have continued projected usage within DoD, and with a documented technical description available to the DoD and industry are preferred. The contractor shall select parts suitable to the design application, in the descending order of preference as follows, unless otherwise specified in the contract:

a. Parts required to meet Government regulatory requirements.

b. Industry standard parts from DoD adopted non-Government standards, when suitable.

c. Military and other Government standard parts.

d. DoD commonly available parts.

e. Industry standard parts from other non-Government standards, when suitable.

f. Commonly available manufacturers' part numbers from catalogs and/or Vendor Item Drawings, when suitable.

g. Other (e.g., parts documented on source control drawings, selected item drawings, altered item drawings).

The contractor may propose alternatives that can be shown to reduce total-life-cycle ownership cost.

6. NOTES. This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.

6.1 Intended use. This document contains requirements for a PMP necessary to achieve an integrated process, to include: design, parts selection, configuration management, and logistics support appropriate for DoD weapon systems and equipment acquisition programs. This document provides information for applying parts management processes and philosophies to achieve the stated objectives and end item performance. It is intended to assist the AA in preparing RFPs, Statements of Objectives (SOOs), Statements of Work (SOWs), Performance Work Statements (PWSs), offeror instructions, etc., (hereafter referred to collectively as "SOW") (see Appendix A). This document is also intended to assist contractors in preparing proposals and structuring their parts management processes.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this standard.

b. Title, number, and date of the associated Data Item Description (DID) for the Parts Management Plan.

c. The AA representative for the contract associated with the implementation of this standard.

6.3 Associated DIDs. This standard has been assigned an Acquisition Management Systems Control (AMSC) number authorizing it as the source document for the following DIDs. When it is necessary to obtain the data, the applicable DIDs must be listed on the Contract Data Requirements List (CDRL) (DD Form 1423).

DID number	DID title
DI-SDMP-81748	Parts Management Plan

The above DID was current as of the date of this standard. The ASSIST database should be researched at http://assist.daps.dla.mil/quicksearch/ or http://assist.daps.dla.mil to ensure that only current and approved DIDs are cited on the DD Form 1423.

6.4 Tools. The following internet-based and automated tools are available or under development (as noted in description of the tool) through the Government to assist in achieving parts management goals and objectives.

6.4.1 Acquisition Streamlining and Standardization Information System (ASSIST) (see http://assist.daps.dla.mil). The ASSIST-online is a comprehensive web site providing access to current information associated with military and federal specifications and standards in the management of the Defense Standardization Program (DSP). Managed by the DoD Single Stock Point, Philadelphia, PA, ASSIST-online provides public access to standardization documents over the Internet. ASSIST-Online includes many powerful reporting features and an exhaustive collection of both digital and warehouse documents. ASSIST is the official source of DoD specifications and standards.

6.4.2 Defense Parts Management Portal (DPMP). The intent of this portal, which is under development, is to provide links to various parts management tools used throughout the entire life cycle of DoD systems. The tools provide assistance for the users to access parts management information through a single point of entry. The intent of the tool is to provide engineering and material data relevant to design, parts availability, parts obsolescence, and parts program management information. This tool should aid the acquisition offices, designers, and specification preparing activities in making informed decisions on PMPs, parts selection, and standardization. For the current status of this tool see http://www.dsp.dla.mil/.

6.4.3 DMSMS/Obsolescence Tools. Various tools, both commercial and Government, are available to assist in mitigating the impact of part obsolescence (e.g. DMSMS, Knowledge Sharing Portal website: http://www.dmsms.org/). Several commercial companies can supply services which identify obsolete parts and/or diminishing manufacturing sources and give predicted availability of parts. Government sources, including GIDEP and Electronics Parts Information Center (EPIC), perform parts DMSMS obsolescence screening, data gathering, and

disseminating for the DoD and their contractors. One or more of these services shall be an active part of the DMSMS and obsolescence program for every organization involved in the design and production of electrical and mechanical products.

6.4.4 DSCC - Document Standardization Unit Website. The Document Standardization Unit of the Defense Supply Center Columbus (DSCC-VA) is the preparing activity for thousands of the parts specifications and drawings for electronic components. This website has search tools to aid in the identification and selection of high quality and reliability standard electronic components (e.g., DSCC Specification Finder, Standard Microcircuit Cross Reference, etc.) (see http://www.dscc.dla.mil/programs/milspec/default.asp).

6.4.5 Electronic Parts Information Center (EPIC). Provides integrated information management tools that help Army Aviation and Missile Command (AMCOM) researchers to significantly reduce the cost and schedule impact of commodity obsolescence. It includes a full range of tailored services that span from equipment design to life-cycle support (see http://www.hsv-epic.com/).

6.4.6 Federal Logistics Information System (FLIS). An automated data processing (ADP) system designed to provide a centralized data bank in support of the Department of Defense, Federal Civil Agencies, and foreign countries participating in the integrated logistics support program. FLIS provides essential information about supply items including the National Stock Number, the item name, manufacturers and suppliers (including part numbers), freight data, hazardous material indicators, interchangeable and substitutable items, management data, and physical and performance characteristics. The WebFLIS Restricted version has added additional search features: Multiple NIIN Inquiry and Unique Item Tracking. Users are now able to perform searches for up to 2,500 NIINs at a time in the multiple NIIN inquiry field. Inquiries may be typed individually, or cut and pasted from a spreadsheet or a word document, or entered as a Comma Separated Value (CSV) (see http://www.dlis.dla.mil/WebFlis/). Multiple part numbers searches is being planned.

6.4.7 Government-Industry Data Exchange Program (GIDEP). A cooperative activity (see website: http://www.gidep.org/) between Government and industry participants seeking to reduce or eliminate expenditures of resources by sharing technical information essential during research, design, development, production and operational phases of the life cycle of systems, facilities, and equipment. GIDEP data can materially improve the total quality and reliability of systems and components during the acquisition and logistics phases of the life-cycle and reduce costs in the development and manufacture of complex systems and equipment.

6.4.8 Parts Selection and Advisory Tool (PSAT). The intent of this tool, which is under development, is to assist in selecting parts to minimize the proliferation of parts and drawings through standardization. The tool is intended to provide the user with information related to the parts usage within the DoD system and to provide advisory information related to similar standard parts. Appendix B describes the PSAT tool, process sequence, and Government and contractor actions associated with PSAT. The tool is an interactive DSPO-sponsored tool. For the current status of this tool see http://www.dsp.dla.mil/.

6.4.9 Program Manager's Tool (PMT).The program manager's tool (PMT) is a key component of the Joint Materiel Standards Roadmap (JMSR) which provides a technical route for selecting standards to reach destinations involving interoperability, logistics readiness, safety, and other operational needs. The PMT helps program managers identify key standards using a modified work breakdown structure (WBS) as described in MIL-HDBK-881. PMT categories include: Aircraft, Electronic/Automated Software, Missile, Ordnance, Ship, Space, and Surface Vehicle Systems; Medical; Consumables; Acquisition/Engineering Practices; Force-Centric Logistics Enterprise (FLE); Army/Navy/Air Force/ Unique; Defense Agency/Joint Policy Wide; and DoD-Wide (see http://assist.daps.dla.mil/).

6.4.10 Weapons System Impact Tool (WSIT). The WSIT is a DSPO-sponsored website that provides an interface to access weapon system and specification content extracted from third-party sources, including unstructured legacy information (Note: The quality of extracted data is measured in accordance with ASQC Q3-1998). The interface enables users to search for and view results as structured data within a single WSIT Coherent View of the Weapon Systems Environment. Please note that access to WSIT is limited - links will be shown only where appropriate for those users with the necessary permissions (see http://assist.daps.dla.mil/).

6.5 Subject term (key word) listing.

Acquisition
Alternative part
Bill of Material (BOM)
Corporate baseline
Department of Defense commonly available parts
Diminishing Manufacturing Sources and Material Shortages (DMSMS)
Electronics Part Information Center (EPIC)
Government/Industry Data Exchange Program (GIDEP)
Interchangeability
Interoperability
Life cycle
Logistics footprint
Logistics readiness
Non-Developmental Items (NDI)
Off-The-Shelf (OTS)
Part
Parts list
Parts Management Advisory Team (PMAT)
Parts Management Plan
Parts management program
Part obsolescence
Part selection
Preferred part
Standardization
Substitute part
Systems engineering
Total life cycle cost

Appendix A

OPTIONS FOR STATEMENT OF WORK (SOW) TASKS

A.1 GENERAL

A.1.1 Scope. This appendix is not a mandatory part of the standard. The information contained herein is intended for guidance only. This appendix contains suggested wording for new contract SOWs, Statements of Objectives (SOOs), Performance Work Statements (PWSs), offeror instructions, etc. (hereafter in this appendix referred to collectively as "SOW"). It is intended to assist the AA in the development of the SOW for the contract. Additional information may be found in SD-19.

A.1.2 Application. Before determining the SOW wording, consider the following factors:

a. Type of equipment or system; for example, operational system, operational support equipment, test vehicle, maintenance, or shop test equipment.

b. Whether the contract is an investigative or study contract.

c. Quantity of systems or equipments to be purchased on the contract.

d. Reliability, safety, or nuclear hardness critical of the part or equipment, coupled with the environment where used (e.g., flight, ground combat, ground benign, etc.).

e. Whether the item is a new design or a modification of an existing design and, if a modification, the extent of that modification.

f. Maintenance concept: Organic or contractor logistics support, or performance based logistics.

g. Whether all or some of the equipment is OTS or NDI. (See definitions 3.8 and 3.9 herein for applicability).

h. Whether the equipment is almost exclusively electrical or mechanical.

i. Ownership and level of technical data package, if required.

Depending upon the criteria above, there may be different tasks for different types of equipment within the same SOW. If so, each task should identify the level of parts management applicable to the specific equipment or types of equipment (such as support or test equipment).

A.1.3 Tailoring assistance. Prior to the release of an acquisition request for proposal, the AA may request assistance from the AA Standardization Office (specifications and standards department) or a PMAT (see 3.13 herein) to provide advice and information related to the services of DLA activities.

A.2 STATEMENT OF WORK EXAMPLE

A.2.1 Tasks for parts management. Below is one example of a SOW which may be incorporated into contracts. The specific acquisition requirements may require the tailoring of the principal SOW tasks.

A.2.1.1 Example The contractor shall establish and maintain a Parts Management Program in accordance with MIL-STD-3018 for all new designs or modified equipment. This program will ensure that the use of parts meet the contractual requirements, reduce proliferation of parts within and across DoD weapons systems and equipments, through standardization, and enhance reliability and supportability to meet material readiness objectives, and reduce total-life-cycle costs. Also, the contractor shall describe how the parts management process is validated, how process improvements are incorporated, and how process variation is controlled. See the below (*) (**) for additional requirements that may be added to the SOW.

a. The following may be added to the example paragraph above.

(*) (The contractor shall document the plan in accordance with DI-SDMP-81748 and deliver the plan in accordance with the CDRL (DD Form 1423).

b. The following should be the second paragraph and should address additional data and part use information to assist in validating the contractor's parts management process.

(**) The procedures, planning and all other documentation, media and data which define the Parts Management Program and the parts selected for use shall be made available to the Government for their review. The Government may perform any necessary inspections, verifications, and evaluations to ascertain conformance to requirements and adequacy of the implementing procedures. The Government may exercise its right to disapprove the Parts Management Program or portions thereof when it fails to meet its intended objectives. Any disagreements will be subject to the dispute provision of the Federal Acquisition Regulations (FAR).

Appendix B

PARTS MANAGEMENT PLAN DEVELOPMENT GUIDE

B.1 GENERAL

B.1.1 Scope: This Appendix is not a mandatory part of the standard. The information contained herein is intended for guidance only. This appendix is intended to provide general guidance and considerations in the development and implementation of a parts management program within a company. The program developed is intended to be applicable to the design development, engineering development, production, modification, test, and maintenance of a program. The appendix is provided to help guide the baseline process for parts management. However, a specified format is not provided as companies are allowed to use their own formats.

B.1.2 Purpose: This document provides guidelines for the preparation and implementation of a parts management plan. This parts management plan is expected to:

a. Improve the potential for part commonality.
b. Provide an integrated process for obsolescence management.
c. Take advantage of emerging technologies.
d. Improve risk mitigation and management.
e. Increase the speed of moving from development through production.
f. Improve forecasting of parts to leverage sourcing needs.

B.2 Applicable documents.

MIL-STD-3018, Parts Management.
DMSMS Acquisition Guidelines, Implementing Parts Obsolescence Management Contractual Requirements.
DOD Directive 5000.1, Defense Acquisition System, Enclosure 1.27, Systems Engineering.

B.3 Definitions. See the definitions section contained herein and SD-19.

B.4 Parts Management Plans.

B.4.1 Implementation. This guideline is intended to be used to coordinate at the program level the selection, application, management, and procurement of parts throughout the design, development, fabrication, test, and maintenance phases of a program. It is intended that each contractor will utilize existing in-house procedures to satisfy the guidelines specified herein. If differences exist between existing contractor procedures and this document, they should be identified to the Acquisition Activity Program Manager for resolution.

B.4.2 Selection. Fulfillment of design objectives is the prime consideration in the selection of parts. When the contract allows the latitude to select other than military grade component parts, then to the extent practical, suitable non-military component parts should be selected that meet the intended hardware design application to reduce cost and take advantage of technical advances available in the non-military market place.

B.4.3 Application. Programs will request contractual approval in accordance with the CDRL for their parts management plan. This plan should also control the selection of all parts introduced into the designs by changes to the approved configuration baseline of the equipment.

B.4.3.1. The program will be consistent with the intent to optimize system spares, provisioning, logistics support, interoperability, reliability, and maintainability.

B.4.3.2. Program controls should further provide a process for the elimination of weaknesses or defects uncovered during all levels of testing; whether it is a part, module, or equipment. The program should be integrated with appropriate part reliability, procurement, and quality assurance activities.

B.4.3.3. A simplified list of the ground rules and activities needed for assuring the selection and control of parts is listed below. Utilization of these steps is recommended as a method of selection, maintenance, and control of parts:

a. Determine part type needed to perform required function and environment it is expected to operate in.
b. Determine Part Criticality.

1. Mission/safety critical.
2. Long procurement lead time.
3. High cost item.
4. Perform cost/technical trade-offs.
5. Expected life-cycle.
6. Part requires qualification.

c. Determine Part Availability.

1. Part on existing parts list.
2. Normal delivery cycle.
3. Part subject to obsolescence.
4. GIDEP; Alert, Problem Advisory or Product Change Notice Implications.
5. Standard Mil-Part, with Qualified Products List (QPL) Source(s).
6. Source Control Drawing exists for part.
7. Part source affected by DMSMS.
8. Multiple sources of supply available.

d. Reliability level for a part appropriate for its intended application environment.
e. Screening methods to determine if a part is available in the required temperature range.
f. Development of detailed Control Drawings, as needed, to ensure performance and reliability.
g. Predict reliability performance in application environment.
h. Assure adequate temperature and electrical stress derating for electronic parts.
i. Predict future availability using DMSMS Knowledge Sharing Portal or other tools.
j. Technology insertion plans for evolving product life cycles.

B.4.4 Program parts list or BOM. The prime contractor will prepare and maintain a parts list or BOM which contains, as a minimum, for parts management:

a. Part type
b. Part description
c. Manufacturer’s part number
d. The part manufacturer(s)
e. General information indicating part qualification status
f. The part specification number (generic and detailed)
g. Quantity used per assembly

Appendix B

A program parts list is maintained for all products developed for the program. The parts list consists of all parts used in the equipment. All parts selected in accordance with the criteria established within this plan are considered approved for use on the program. The parts list is available for review by the Program Manager upon request.

B.4.5 Managing sources. Source management is a key factor in the standardization of parts. The trend towards OTS items is putting increased emphasis on source management to ensure quality. This must be achieved through the development of preferred suppliers that provide the greatest competitive advantage using a variety of methods:

a. Physical (manufacturer's) facility and industry surveys.
b. Supplier quality history.
c. GIDEP history, participation and/or no response.
d. Technical capability of similar products.
e. Qualification of new parts or similar devices.
f. Shared data through use of site databases and internal alerts.
g. Shared experiences gathered through the use of Lessons Learned databases, sites, and corporate commodity teaming and standards or parts management organizations.
h. Part performance feedback through failure analysis reviews and product improvement.
i. Subcontractor/supplier management and controls.

Major subcontractors should:

a. Maintain their own internal systems and establish and conduct parts management activities.
b. Create, coordinate, and submit Parts Management Plans to the prime contractor for approval.
c. Flow down parts management requirements to subcontractors as appropriate.

Parts manufacturers should:

a. Promote communication with the prime contractor and their suppliers to ensure feedback for part failures, manufacturing changes, and customer needs.
b. Manage internal materials and processes to provide control and a consistent product.

All of these methods may be used in varying degrees as part of supply chain management.

B.4.5.1 GIDEP. The component engineering or equivalent organization will participate in the GIDEP Program.

B.4.6 Part evaluation and qualification.

B.4.6.1 Part qualification test. All parts will be qualified for their intended application by test, analysis, or similarity.

B.4.6.2 Part and supplier quality. Provisions for assessing part suppliers and part quality such as statistical process control data, audits, past performance, etc. will be addressed.

B.4.7 Parts selection and standardization. Selecting parts using sound evaluation principles reduces risk and improves the chances that equipment will perform reliably. Preferred parts have a history of proven reliability withstanding rigorous testing and performing at stated levels. Their use decreases the number of maintenance actions and potentially precludes failures that could cause mission failures or loss of life.

Parts are designated as preferred based on the following:

a. Product design requirements (specifications/standards).
b. Part selection criteria.
c. Current parts lists.
d. Initial cost.
e. Life cycle cost.
f. Reliability
g. Supportability
h. Interoperability
i. Maintainability
j. Emerging technologies.
k. Design reuse.
l. Lessons learned.
m. GIDEP alerts.
n. Diminishing Manufacturing Sources and Materiel Suppliers (DMSMS).
o. Part currently in inventory.
p. Preferred suppliers.

Above listing is in no particular order. No ranking is intended by order.

B.5. Parts management critical issues.

B.5.1 Substitute and alternative parts. The process for the management, definition, and documentation of substitute and alternative parts will be addressed. In specifying the part replacement process, the contractor will ensure that the substitute/alternative part meets the requirements of this parts management plan.

B.5.2 Additional elements. Additional elements (e.g. - lead free, counterfeit parts) will be addressed when specified by the RFP. Those additional elements will be defined. This parts management plan will address those elements.

Concluding Material

Custodians:
Army - MI
Navy - AS
Air Force - 11
DLA - DH

Review activities:
Army - AR, AT, CR, EA
Navy - CH, EC, MC, NW, OS, SH
Air Force - 13, 19, 70, 71, 84, 99
DLA – CC, GS, IS

Preparing activity:
OSD - SO

Agent:
DLA - CC

(Project SDMP-2007-004)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at http://assist.daps.dla.mil.