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DEPARTMENT OF DEFENSE HANDBOOK

PARTS MANAGEMENT

This handbook is for guidance only. Do not cite this document as a requirement.

AMSC N/A **AREA SDMP**

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

FOREWARD

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

2. This handbook is for guidance only. This handbook cannot be cited as requirement. If it is, the contractor does not have to comply.

3. This handbook is a guideline for successfully defining and evaluating parts management objectives in support of acquisition strategies and systems engineering practices of DoD 5000.2, “Mandatory Procedures for Major Defense Acquisition Programs and Major Automated Information System Acquisition Programs”. When used in conjunction with SD-19, “Life Cycle Cost Savings Through Parts Management” will provide further guidance for persons involved in parts management, and for defining parts management needs in contracts, setting up a parts management process for prime contractors, suppliers and subcontractors, and offering an efficient means of providing a manageable part selection process for anyone involved with standard parts. Additional guidance can be found in the “Defense Acquisition Deskbook” at http://web.deskbook.osd.mil/default.asp under section 26G, Parts Control Program.

4. Beneficial comments (recommendations, additional, deletions) and any pertinent data which may be of use in improving this document should be addressed to Defense Supply Center, Columbus, ATTN: DSCC-VSC, P.O. Box 3990, Columbus, OH 43216-5000, by using the Standardization Document Improvement Proposal (DD Form1426) appearing at the end of this document or by letter.

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1. SCOPE

1.1 Purpose. This handbook provides guidance for implementing an effective Parts Management Program (PMP) on Department of Defense (DoD), industry and commercial acquisitions. The guidance in this document supports acquisition strategies and systems engineering practices of DoD 5000.2-R. This document provides performance-based parts management process guidance which is intended to be adapted to individual program needs and which provides appropriate latitude for innovative approaches and design solutions by the contractors. This handbook is for guidance only. This handbook cannot be cited as a requirement. If it is, the contractor does not have to comply.

1.2 Objective. The objectives of a PMP are to reduce total cost of ownership and increase logistics readiness, and are achieved through:

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. Becoming compatible with the business environment and trends.

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

1.3 Intended use. This document contains guidance in evaluating the elements of a PMP necessary to achieve an integrated process of design, parts selection, configuration management, and logistic support appropriate for all types of acquisition programs. This document provides information necessary for applying parts management processes and philosophies necessary to achieve the stated objectives and end item performance. It is intended to assist the acquisition activity (AA) in preparing Requests for Proposal (RFPs), Statements of Objectives (SOOs), Statements of Work (SOWs), offeror instructions, etc. 1/ This document is also to assist contractors in preparing proposals and structuring their parts management processes.

1.4 Application. This document provides guidance for the application of a PMP for modifications and new contracts for all types of acquisition programs. Applicability of individual aspects of the guidance contained herein is dependent upon program business and support strategies, technologies used, expected service life, etc.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed below are not necessarily all of the documents referenced herein, but are the ones that are needed in order to fully understand the information provided by this handbook.

2.2 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 which are DoD adopted are those listed in the issue of the DoDISS and supplement thereto.

ANSI/AIAA-R-100 - Parts Management, Recommended Practice for.

(Application for copies should be addressed to American Institute of Aeronautics and Astronautics, 1801 Alexander Bell Drive, 3rd Floor, Reston, VA 20191-4344.)

1/ Throughout this document only the SOW acronym will be used and should be construed to include SOO.

2.3 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 the military system or equipment. For non-Government users, references to government or acquisition activity should be interpreted as referring to that non-government customer.

3.2 As-built parts list. A listing of all parts actually used in a military system or equipment design. Alternate parts, as defined herein, may be used without listing when the controlling part number is on the as-built parts list.

3.3 As-designed parts list. A listing of all parts used in the design of the military system or equipment. In contracts not requiring a production unit, the as-designed parts list becomes the as-built parts list.

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

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

3.6 Generalized Emulation of Microcircuits (GEM). A DSCC managed program that provides form, fit, function, and interface replacements for non-procurable microcircuits.

3.7 Government Furnished Baseline (GFB). A listing of standard parts recommended for selection and application in new designs or modifications. The Military Parts Control Advisory Group (MPCAG) creates, maintains, and provides the GFB.

3.8 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, MPCAG, consulting contractor(s), prime contractor(s),sub-contractor(s), and parts suppliers may comprise this team.

3.9 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.

3.10 Military Parts Control Advisory Group (MPCAG). A Government organization that provides advice and recommendations on parts management plans and processes and on the selection and use of preferred standard and nonstandard parts.

3.11 Non-developmental item (NDI). System or equipment available from a wide variety of sources with little or no development effort required by the Government. This definition does not apply to the part level (see 3.14).

3.12 Off-the-shelf (OTS). An item developed and produced to military or commercial standards and specifications, available for delivery from an established source, and acquired without change to satisfy design requirements. This may sometimes be referred to as commercial off-the-shelf (COTS). This definition does not apply to the part level (see 3.14).

3.13 Part. One piece, or two or more pieces joined together, which is not normally subject to disassembly without destruction or impairment of intended design use.

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

3.15 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, etc.

3.16 Program Parts Selection List (PPSL). A list of all parts being selected by the contractor(s)/subcontractor(s) and offered as approved for design on a specific contract. The PPSL may also contain parts selected from the GFB. The PPSL is a tool to indicate standardization activity and to verify compliance with contract requirements. Not all of the parts listed on the PPSL are actually used in the design.

4. GENERAL GUIDANCE

4.1 General. The selection and application of parts are the responsibility of the contractor whose primary requirement is to meet performance objectives of the system or equipment. To assure meeting those objectives, the contractor may include consideration of the concepts addressed in ANSI/AIAA-R-100. The AA should become familiar with this document before assessing the contractor proposals, plans, and effort. Parts management is an integral design approach intended to ensure program success which begins at the earlier possible stage of a program and continues through system retirement.

4.2 Acquisition activity. To establish an effective PMP the AA must establish in the RFP a requirement for a parts management plan. During source selection the AA must review the proposals to ensure the contractor will implement an effective PMP. The AA must ensure the SOW specifies the approval level of Government involvement and should monitor the contractor performance accordingly.

4.3 Contractor. The contractor should provide a parts management plan responsive to the RFP. The plan should address program management, government participation, and parts selection. The contractor should work with the AA to establish contract requirements and after contract award, support the efforts of the program IPT.

5. DETAIL GUIDANCE

5.1 Proposal development. During the proposal development, the Government should assess its parts management requirements, address them in an acquisition strategy, and incorporate them into an RFP. The AA should determine its level of involvement, prepare SOW tasks, as applicable, and establish parts management criteria for contractor source selection. Appendix A provides suggested SOW task statements.

5.2 Source selection considerations. The AA or designated representative should review the contractor's proposed parts management plan or internal parts management procedures for the elements listed in the following subparagraphs. The criteria listed below are subject to the needs of the procurement and support strategies chosen by the AA. It is important to note that a contractor's proposal without designated parts management related costs should be further investigated to assure that parts management is integral with other quoted costs.

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

a. Parts selection baseline. A corporate baseline, parts selection list, or other database should be maintained in order to give visibility to designers and subcontractors of parts preferred for use in order to achieve part standardization goals.

b. Parts selection and authorization process. Procedures for authorizing new parts to the PPSL should be included. The procedures should identify the entity responsible for authorizing parts for use and the structure and membership of the parts selection IPT, if applicable. Criteria used to ensure suitability of parts' intended use to the required application, order of preference used in considering new parts (see 5.7), and procedures for notifying associated disciplines (inventory, purchasing, quality assurance) in case of authorization of a new part should be included.

c. Obsolescence management. Procedures for obsolescence management should be addressed 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.

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

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

f. Part level documentation requirements. When addressed, part level documentation procedures should be consistent with the program's logistic strategies and need for performance and re-procurement documentation at the intended level of logistic support.

g. Substitute and alternate part procedures. The process for the management and documentation of parts, other than those on an as-built or as-designed parts list, should be addressed. In specifying the part replacement process, care should be taken to ensure that the program is consistent with the intent and application of other disciplines (e.g., reliability, configuration management, quality, logistics, etc.).

h. Customer-contractor teaming. The parts management plan should address how customer teaming should be provided to allow for continued process insight and program verification (i.e., IPT participation, technical interchange meetings, as-built, and other parts lists).

5.3 Pre-award considerations. The following are possible methods for ensuring that parts management becomes part of the contractor's development and production efforts:

a. Evaluate and negotiate tailoring of contractor's parts management process before preparation of contract SOW, if applicable.

b. Consider contractor's alternate proposals for satisfying parts management requirements.

c. Determining requirements for Government access to contractor's PMP data (e.g., as built part lists, etc.). In determining the need for contractor data, deliverables data from other program tasks should be utilized to the greatest extent possible and parts management unique data requirements avoided. This data may be used to evaluate system or equipment expected operating performance, assess contractor performance against a parts management plan, and inform the MPCAG of industry usage of parts so that MPCAG can focus on specification problems and trends for standardization.

5.4 Post-contract award. Depending on the level of involvement, the following recommendations are methods to ensure effective implementation of a PMP:

a. The AA or contractor can initiate a post-contractor award meeting.

b. Assign Government IPT representative as responsible for participating in the contractor parts management effort.

c. Include parts management and standardization agenda items for design review and program progress reviews.

d. Review the contractor parts lists and part procurement documentation of new parts for compliance with the contractor's PMP.

5.5 Tools. This section identifies parts management tools that may be used by the customer and contractor to assist in achieving parts management goals and objectives.

5.5.1 Government/Industry Data Exchange Program (GIDEP). A cooperative program to support Government systems readiness, logistics effectiveness, productivity, and cist reduction through timely retrieval, storage, and distribution of data among government and industry organizations. Participation in GIDEP provides insight into the history of the quality of parts.

5.5.2 Defense Logistics Agency MPCAGs. These Government groups will provide assistance in selecting parts. See the parts management website at www.dscc.dla.mil/offices/parts_mgmt for applicable part type categories and general MPCAG information. Specific MPCAG responsibilities are below:

a. Generate and maintain the GFB and make them available to the AA and the contractor, either paper copies or electronically.

b. Assign contract codes for MPCAG evaluations and recommendations.

c. Evaluate part requests.

d. Track and analyze parts requests and as-built parts lists for usage trends for updating the GFBs.

e. Generate and maintain PPSL, if requested or required.

f. Maintain and upgrade, as necessary, the electronic data interchange system.

g. Serve as a repository of shared data from Government, contractor, and part suppliers.

h. Provide focal points for DMSMS and GEM programs (electronics only).

i. Provide information on parts regarding the on-going document revision, and the part qualification requirements and its status.

There are other support functions with DLA which enhance the MPCAGs advisory role.

j. Certify, quality, and audit the suppliers of military specification parts.

k. Provide or modify documentation for standard parts.

5.5.3 DMSMS/obsolescence tools. There are tools available to assist acquisition activities in mitigating the impact of part obsolescence. There are several commercial companies that supply services that identify obsolete parts and/or diminishing manufacturing sources and gives predicted life expectancy of parts. Other sources include GIDEP and the MPCAGs, which perform parts DMSMS obsolescence screening, data gathering, and disseminating for the DoD and their contractors. One or more of these services should be an active part of the DMSMS and obsolescence program for every organization involved in the design and production of electrical and mechanical products.

5.6 Application to OTS and NDI. Parts contained in OTS and NDI equipment used in the end item are not normally subject to the parts management procedures relating to introduction and initial support of parts, but should be accounted for in design support, planning for obsolescence, and continuous redesign considerations redesign considerations. When OTS and NDI equipment requires modification, only the parts proposed for the modified portion of the equipment should be subject to the appropriate parts selection procedures described herein.

5.7 Order for preference in parts selection. The contractor should select parts suitable to the design application in the descending order of preference as follows:

a. Parts required to meet Government regulatory organizations' regulations.

b. Parts defined by standards produced by recognized industry committees or groups.

c. Military or Government standard parts.

d. Corporate standard type parts.

e. Parts identified by part manufacturer part numbers controlled by their drawings, catalogs, or company standards or source control drawings or vendor item drawings.

The contractor should be encouraged to propose alternatives that can be shown to reduce total ownership cost.

6. NOTES

6.1 Subject term (key word) listing.

Acquisition
Alternate part
Corporate baseline
Diminishing manufacturing sources and material shortage (DMSMS)
Generalized emulation of microcircuits (GEM)
Government furnished baseline (GFB)
Government/Industry Data Exchange Program (GIDEP)
Interchangeability
Life cycle
Logistics readiness
Military Parts Control Advisory Group (MPCAG)
Modernized Parts Control Automated Support System (MPCASS)
Part
Part obsolescence
Part selection
Preferred part
Program parts selection list (PPSL)
Standardization
Substitute part
Total cost of ownership

6.2 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

APPENDIX

OPTIONS FOR STATEMENT OF WORK TASKS

A.1 GENERAL

A.1.1 Scope. This appendix contains suggested wording for new contract SOWs.

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. DoD-wide part proliferation is a stated major concern.

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

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

e. 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.).

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

g. Maintenance concept: Organic or contractor.

h. Whether all or some of the equipment is OTS or NDI.

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

j. 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 and upon request, the MPCAG can provide tailoring assistance and information related to the MPCAG.

A.2 STATEMENT OF WORK EXAMPLES

A.2.1 Tasks for parts management. The specific acquisition requirements may require the tailoring of the principal SOW tasks.

A.2.1.1 Example A. The contractor should establish and maintain a PMP that will ensure the use of parts that meet contractual requirements, reduce proliferation of parts through standardization, and enhance equipment reliability and supportability, and proactively manage obsolescence. Within XX days after contract award, an internal company plan or procedures should be made available to the AA for review and use. The AA may perform audits to ascertain program conformance and adequacy of the implementing procedures. The contractor should/can utilize MIL-HDBK-512 herein, as a guide for developing and maintaining the PMP.

APPENDIX

A.2.1.2 Example B. The contractor is encouraged to establish and maintain a PMP, and within XX days after contract award, internal company plan or procedure should be made available to the AA for review. The AA may comment on the plan and suggest ways to improve conformance and adequacy of the implementing procedures. The contractor is encouraged to use MIL-HDBK-512 as a guide for developing and maintaining the PMP.

A.2.1.3 Example C. The contractor should establish and maintain a PMP that will ensure the use of parts that meet contractual requirements, reduce proliferation of parts through standardization, and enhance equipment reliability and supportability. The procedures, planning, and all other documentation media and data which define the Parts Control Program and the parts selected for use should be made available to the government for their review and use. The government may perform any necessary inspections, verifications, and evaluation to ascertain conformance to requirements adequacy of the implementing procedures.

Custodians:
Army - AV
Navy - AS
Air Force - 10
DLA - CC

Preparing activity:
DLA – CC

Review activities:
Army - AM, AR, CR, GL, MR
Navy - EC, MC, OS, SA, SH, TD
Air Force - 11, 13, 19, 22, 70, 71, 84, 99
DLA - GS, IS

(Project SDMP–0028)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-HDBK-512A	2. DOCUMENT DATE 31 October 2001

3. **DOCUMENT TITLE**
PARTS MANAGEMENT

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle initial)	b. ORGANIZATION	
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) COMMERCIAL DSN FAX EMAIL	7. DATE SUBMITTED

8. PREPARING ACTIVITY

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