



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE MATERIEL COMMAND
WRIGHT-PATTERSON AIR FORCE BASE OHIO**

AFMCI20-105
28 JULY 2020

MEMORANDUM FOR RECORD

FROM: HQ AFMC/A4/10-EN
4375 Chidlaw Road, Room
Wright-Patterson AFB OH 45433-5006

SUBJECT: Administrative Change (OPRShip) to AFMCI20-105 DIMINISHING
MANUFACTURING SOURCES AND MATERIEL SHORTAGES (DMSMS), dated 16
November 2017.

1. OPR is hereby changed to "HQ AFMC/A4/10-EN"
2. POC is Dr. Stanley Rogers, HQ AFMC A4/10-EN, DSN 257-5671(Telework: 937 241-8093)
or via email at stanley.dr_rogers.1@us.af.mil.

//Signed//

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Systems Integration Engineer
HQ AFMC/A4/10-EN

**BY ORDER OF THE COMMANDER
AIR FORCE MATERIEL COMMAND**

**AIR FORCE MATERIEL COMMAND
INSTRUCTION 20-105**



16 NOVEMBER 2017

Logistics

***DIMINISHING MANUFACTURING
SOURCES AND MATERIEL
SHORTAGES (DMSMS)***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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OPR: HQ AFMC/A4F

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(Col Fredrick G. Plaumann)

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Pages: 16

This instruction implements policy provided in Air Force Policy Directive (AFPD) 63-1/20-1, *Integrated Life Cycle Management* (Attachment1, Reference 2), Department of Defense Instruction (DODI) 4140.01, *DOD Supply Chain Materiel Management Policy* (Attachment1, Reference 15) and Department of Defense (DOD) Manual 4140.01, Volume 3, *DOD Supply Chain Materiel Management Procedures: Materiel Sourcing* (Attachment1, Reference 1). This instruction provides additional policy relating to Air Force Materiel Command (AFMC) implementing the DOD and Air Force (AF) policy on obsolescence management for sustainment or improvements of all weapon systems and end items currently in the AF inventory. It is to be used by AFMC, associated Program Executive Offices, Supply Chain Management Planning & Execution (P&E) Wings, Groups, and Squadrons, as well as supporting contractors for weapon systems no longer in AFMC inventory, which the AF has agreed to provide support for. This publication is not applicable to the Air Force Reserve Command (AFRC) or Air National Guard (ANG). In addition, Air Force A4/7 has delegated Diminishing Manufacturing Sources and Materiel Shortages (DMSMS) procedural guidance development to AFMC in Air Force Instruction (AFI) 23-101, *Air Force Materiel Management* (Attachment 1, Reference 3). This AFMCI may not be supplemented at any level. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. The authorities to waive wing/unit level requirements in this publication are identified with a Tier (“T-0, T-1, T-2, and T-3”) number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, for a description

of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual (AFMAN) 33-363, *Management of Records* (Attachment 1, Reference 4), and disposed of IAW the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

SUMMARY OF CHANGES

Changes the instruction series from 23 to 20. Within the objective, specifically defines output products of the instruction. Realign responsibilities based on reorganization to the six (6) Center organization of AFMC. Strongly emphasize that DMSMS plans are to encompass the entire life cycle of a program, from development through sustainment and subsequent retirement. The execution of a DMSMS program spans AFMC Centers. Significantly expands the role of the Strategic Alternate Sourcing Program Office (SASPO). Establishes the formal appointment of program DMSMS points of contact and their listing on the Air Force DMSMS Collaboration SharePoint Site. (<https://org.eis.afmc.af.mil/sites/948scmg/429scms/GUMD/DMSMS%20Collaboration/default.aspx>). Establishes the requirement to archive DMSMS case resolution and associated data in a single, centralized, and official AF predictive tool managed by the SASPO. This revision adds an acronym list.

1. Objective:

1.1. Reduce the impact of DMSMS by proactively identifying and resolving DMSMS issues to ensure the continued availability of items and essential materials needed to support current and, when possible, planned defense requirements. This instruction covers the entire life cycle from concept development, design, acquisition, sustainment until system retirement (i.e. cradle to grave).

1.2. Specific Output of the AFMC DMSMS Program: Effective system DMSMS Plan, and resolved DMSMS cases of the AFMC DMSMS Program.

1.3. A DMSMS Program requires AFMC stakeholder Integrated Product Teams (IPTs) comprised of people from Air Force Life Cycle Management Center (AFLCMC), or Air Force Nuclear Weapon Center (AFNWC) and Air Force Sustainment Center (AFSC) organizations. These stakeholder teams shall aggressively work across AFMC Center organizational lines as well as internal Center organizations to lead and pursue proactive, timely, and effective actions when a commodity, sub-system, and/or system (i.e., “item”) is identified to have a DMSMS problem, particularly when those items threaten to degrade weapon system readiness.

1.4. A specific roadmap that shows teams how to implement an effective DMSMS plan is available in Standardization Document, SD-22, *DMSMS Guidebook of Best Practices for Implementing a Robust DMSMS Management Program* (<https://dap.dau.mil/policy/Documents/2012/SD-22%20DMSMS%20Guidebook.pdf>).

Unresolved barriers to solving DMSMS challenges using these techniques shall be raised as agenda items for resolution to the Product Support Integration Council (PSIC) which is co-chaired by AFSC/LG and AFLCMC/LG. The AFNWC, while not required to participate in the PSIC, may request participation when beneficial in resolving DMSMS issues of mutual concern.

2. Policy. It is AFMC policy that:

2.1. An effective DMSMS program works to both proactively identify potential DMSMS risks and effectively resolve identified and unanticipated challenges. An effective DMSMS program should include representatives from the applicable Program Office (AFLCMC/AFNWC) and responsible Inventory Control Points (ICP) within AFSC which manage weapon system subsystems or components. DMSMS programs shall include all organizational elements responsible for design control, acquisition, and supply chain support of any item used on Mission Design Series (MDS) weapon systems or equipment. The DMSMS program will mitigate DMSMS impacts throughout the system’s or equipment’s life cycle, considering the impact on both system or end item acquisition and sustainment when the lack of, or impending lack of, sources for items or material endangers the support capability. The Program Manager (PM) develops, implements, and maintains a DMSMS program.

2.1.1. For guidance on the establishment and management of this DMSMS program see Department of Defense Diminishing Manufacturing Sources and Material Shortages Guidebook (SD-22) (Attachment 1, Reference 5) while still complying with AFMC Instruction (AFMCI) 63-1201, *Implementing Operational Safety, Suitability, & Effectiveness (OSS&E) and Life Cycle Systems Engineering (LCSE)* (Attachment 1, Reference 6). The internal DMSMS programs will include:

2.1.2. The Program Manager (PM) identification of DMSMS management team (DMT) members. The Program Office DMT is comprised of the Product Support Manager (PSM), other applicable PMs functional areas (i.e., AFLCMC organizations and supporting functional areas), and responsible Supply Chain organizations (i.e., AFSC organizations and supporting functional areas).

2.1.2.1. Joint AFLCMC or AFNWC and AFSC DMT will provide applicable material management leadership and action to ensure warfighters receive the right support at the right place at the right time through sound stewardship of Air Force-managed items (common or peculiar) throughout all phases of the Integrated Life Cycle Management (ILCM) spectrum (Attachment 1, Reference 15), especially the Operations & Support (O&S) Phase. These teams shall develop a DMSMS program plan and budget, and secure the appropriate funding (e.g., Working Capital Funds, O&M funds, procurement funds, etc.) to solve DMSMS challenges. Responsible DMSMS teams shall recommend team leads (by name) to be designated formally by their respective AFNWC, AFSC and AFLCMC leadership. A listing, by organization, of appointed AFMC DMSMS Subject Matter Experts (SME) (Logistics Management Specialists/PMs and Engineers) will be maintained by the SASPO on the Air Force DMSMS Collaboration SharePoint site <https://org.eis.afmc.af.mil/sites/948scmg/429scms/GUMD/DMSMS%20Collaboration/default.aspx>

2.1.2.2. DMSMS leads shall be established at the MDS Program Office level and support the PM in all areas related to DMSMS. Additionally, a DMSMS manager shall be appointed at the Prime Integrator and ICP to establish communication links with the MDS PM making possible clear communication of DMSMS issues between AFSC, AFLCMC and AFNWC organizations. Finally, DMSMS plans shall be implemented that detail the management approach and strategy along with the comprehensive plan to budget and fund the DMSMS efforts by the appropriate organizations.

2.1.3. The DMSMS Program Plan shall:

2.1.3.1. Describe the total DMSMS management and mitigation process throughout the entire life cycle. The DMSMS management and mitigation process begins with the design phase and ends with retirement, with acquisition and sustainment organizations working together on an effective plan.

2.1.3.2. After all DMSMS mitigations, describe the DMSMS management approach, strategy, and the program's plan to budget and fund the DMSMS efforts (e.g., health assessments, Economic Assessments/Business Case Analysis (BCA), etc.).

- 2.1.3.3. Describe the DMSMS Management Team structure, roles, responsibilities, and functions.
- 2.1.3.4. Identify the process for obtaining accurate and complete configuration data.
- 2.1.3.5. Define the market research process to ensure legitimate needs are identified and trade-offs evaluated when acquiring items. See DOD SD-5, *Market Research* (Attachment 1, Reference 8) for further research options and complete research guidance.
- 2.1.3.6. Establish a process for DMSMS case management and metrics' trends collection, associated solutions and costs.
- 2.1.3.7. Identify how the program's Technology Roadmaps are incorporated into the DMSMS strategies and plans.
- 2.1.3.8. Identify what DMSMS management, monitoring, reliability, and/or logistics tools are being used and how.
- 2.1.3.9. Describe how analysis processes (e.g. Economic Analysis, Cost/Benefit, BCA, etc.) will be used to ensure that the most cost effective obsolescence resolutions are selected.
- 2.1.3.9.1. Analysis shall include consideration of implementing performance based requirements and migration to Open Systems Architecture to minimize the potential of future impacts during the system's or end-item's predicted life. Analysis should also include consideration of implementation of performance based requirements and migration to Open Systems Architecture to minimize the potential of future impacts during the system's or end-item's projected life.
- 2.1.3.9.2. Ensure analysis addresses the potential impact of incomplete government data rights (i.e. when using Contractor Logistics Support (CLS) or other hybrid strategies).
- 2.1.3.9.3. Assess the Contractors' DMSMS programs and ensure they meet program requirements.
- 2.1.3.10. Describe how the program will interface with the SASPO to make maximum use of their DMSMS expertise and support capabilities.
- 2.1.3.11. Describe how the program shares data and efforts with other programs/services.
- 2.1.3.12. Describe how configuration data (e.g. Bill of Materials, Preliminary Bill of Materials) is to be used.
- 2.1.3.13. Identify and forecast piece part obsolescence impacts and mitigations for all configurations. Monitoring of potential risks may be done at an appropriate practical level. The SASPO office may assist with the analysis through the use of the predictive tool.
- 2.1.3.14. In collaboration with SASPO describe the process to archive DMSMS case resolutions.

2.1.4. DMSMS Management Team (DMT): Responsible Program Managers (PM) (AFLCMC) will appoint DMSMS leads/SMEs. Responsible Directors (AFSC) will also appoint DMSMS leads/SMEs. An appointment memo template is provided in Attachment 2 to this instruction. Organization DMSMS SMEs should include Logistics Management Specialist/PM and Engineering representation. DMSMS leads/SMEs will form DMSMS Management Teams as needed to solve DMSMS challenges. These teams will frequently include members from more than one AFMC Center (e.g., AFSC, AFLCMC or AFNWC). A list of appointed AFMC DMSMS SMEs by AFLCMC, AFSC and AFNWC organizations will be maintained by the SASPO on the Air Force DMSMS Collaboration SharePoint site <https://org.eis.afmc.af.mil/sites/948scmg/429scms/GUMD/DMSMS%20Collaboration/default.aspx>

2.1.4.1. The DMT will have adequate representation of stakeholders (i.e., item manager, equipment specialist, program management, systems engineering, AFSC and AFLCMC or AFNWC logistics, financial management, contracting, SASPO, Original Equipment Manufacturer (OEM), and key subcontractors) that can provide useful inputs on DMSMS mitigation issues. DMT may be tailored as appropriate for a particular program.

2.1.4.2. All members of the DMT will be trained on their role in supporting DMSMS management for the program. Defense Acquisition University (DAU) has several specific DMSMS courses available which provide a sound basis for this DMSMS knowledge. Training resources include the courses listed at <https://acc.dau.mil/CommunityBrowser.aspx?id=453969>. SASPO, acting as the AFMC SME, will provide detailed IPT training which outline the roles and responsibilities of IPT members. Extensive guidance on DMSMS training is provided in Attachment 1, Reference 5.

2.1.5. DMSMS Data Acquisition: Program Managers shall:

2.1.5.1. Improve as much as possible the Air Force's leverage position to acquire an indentured Bill of Materials (BOM) down to the piece part level for each of their systems adequate to identify the generic piece part number using Data Item Description DI-SESS-81656, Source Data for Forecasting DMSMS (Attachment 1, Reference 10). Systems incorporating Commercial Off-the-Shelf (COTS) products should be managed through market surveys. During the acquisition phase, programs can use the normal Program Objective Memorandum (POM) process to acquire BOMs associated with fielded systems. Specification Control Numbers and Source Control Numbers should include vendor generic part numbers used to develop these parts.

2.1.5.2. Load technical data into an AF DMSMS predictive tool and continuously monitor these systems for component obsolescence impacts. Where possible multiple predictive tools should be used. The SASPO manages the AF DMSMS predictive tool/management information system. DMSMS teams shall use the AF DMSMS predictive tool to assist with DMSMS data driven analysis. DMSMS teams may obtain access to the AF DMSMS predictive tool by accessing the AF DMSMS Collaboration SharePoint site

<https://org.eis.afmc.af.mil/sites/948scmg/429scms/GUMD/DMSMS%20Collaboration/default.aspx>

2.2. A DMSMS office will be maintained within SASPO to serve as the command DMSMS program office providing Program Offices, Air Logistics Complexes, and other AF organizations requiring DMSMS support with predictive tools, analysis and resolution capabilities, data processing, and training for effective management of DMSMS in AF weapon systems.

2.3. End of Life/Life of Type (LOT) buy options for an item which will no longer be produced shall be executed only when all other more economical and logistically acceptable alternatives to a material shortage or manufacturing discontinuance have been exhausted. Execution of any End of Life/LOT buy shall be made only after current stock-on-hand, usage and expected life-limit support periods are taken into account and factored into a final buy requirement. The Inventory ICP Item Manager (IM) will fund and procure LOT buys used as government furnished material. If no IM is assigned, the System end item PM makes the LOT buy.

2.4. DMSMS resolutions will ensure the preservation of OSS&E baselines. The responsible Program Management Office or the Inventory Control Manager will coordinate with platform owners whenever configuration or baseline OSS&E changes/integration issues are warranted.

2.4.1. There are two broad categories of OSS&E baselines. The platform level (e.g., C-17, C-5, C-130, etc.) and the subsystem level (e.g., ARC-190, ALQ-172, etc.). Any DMSMS management resolution and implementation at the AFSC level needs to be vetted through the appropriate platform level system for impact.

2.5. Program and item managers will take action to prevent potential counterfeit material or unauthorized product substitution items from entering the supply system (i.e Counterfeit Prevention Plan).

2.6. Provide a history file for AF DMSMS predictive tool users to indicate a DMSMS case's final resolution.

2.7. An effort shall be made to coordinate and consolidate resources, achieve maximum cost benefits, and avoid duplication of effort throughout the Command, and the United States Air Force.

3. Responsibilities.

3.1. HQ AFMC/A4F will:

3.1.1. Prepare AFMC DMSMS policy and procedural guidance consistent with Air Force and DOD policy guidance.

3.1.2. Serve as the AFMC DMSMS instruction OPR.

3.1.3. Require all AFMC Centers appoint a DMSMS focal point.

3.1.4. Provide all AFMC Centers with AFMC DMSMS policy.

3.1.5. Review and update this AFMCI every two (2) years.

3.2. AFSC/429 SCMS/GUMD, SASPO will:

- 3.2.1. Serve as the command DMSMS subject expert program office by providing AFLCMC, AFSC, AFNWC, Program Offices, and other AF organizations with predictive tools, a DMSMS case resolution archive, analysis and resolution capabilities, data processing, and training for effective management of DMSMS in AF weapon systems.
- 3.2.2. Assist Program Managers to develop a comprehensive effective DMSMS program plan consistent with the guidance in SD-22.
- 3.2.3. Assist Program Managers in identifying technical data necessary to avoid or mitigate adverse DMSMS impacts on program cost, schedule, production and sustainment.
- 3.2.4. Identify opportunities across weapon system platforms to share resources and minimize the duplication of effort.
- 3.2.5. Collect and review DMSMS metrics and report DMSMS trends that are compiled out of the AF DMSMS predictive tool.
- 3.2.6. Support AFMC DMSMS working groups and represent AFMC OPR at AF and DOD level meetings, when requested.
- 3.2.7. Develop, maintain, and interface with DMSMS obsolescence predictive tools to support determination of the current and future status of BOM elements and assist in resolution of DMSMS issues.
- 3.2.8. Provide weapon system managers with analysis and resolution resources to perform system studies and proactively identify and resolve part unavailability issues before impacting supportability.
- 3.2.9. Develop, maintain, and interface with DMSMS data management tools to facilitate the DMSMS discontinuance notification process for DLA managed items supporting all AFMC Centers.
- 3.2.10. Populate the AF DMSMS Collaboration SharePoint site with appropriate value-added materials that will enable AFLCMC, AFSC, and AFNWC DMTs to proactively solve DMSMS challenges.
- 3.2.11. Upon receipt of a DLA discontinuance, counterfeit or change notice (only applies to DLA managed parts), the 429 SCMS DMSMS office (SASPO) shall ensure the DMSMS predictive tool service provider identifies all Air Force managed Next Higher Assemblies (NHA) that will be impacted and submits a case study to the responsible DMT for each individual National Stock Number (NSN) using the government provided predictive tool. Based on feedback received from the DMSMS predictive tool service provider the SASPO will also ensure responsible DMTs are taking aggressive action to work across Center organizational lines to lead and pursue proactive, timely and effective actions to resolve DMSMS cases. The case study will then be researched to identify determining factors and calculate End of Life/Life of Type (LOT) buy information back to DLA.
- 3.2.12. Validate AF DMSMS predictive tool (models). The accuracy of and confidence in model predictions shall be improved.

3.2.13. Identify systems that use the same components and technologies, and establish commodity management and preferred materials and processes to standardize use of like materials across AF programs.

3.2.14. Current or potential obsolescence issues for DLA managed parts identified by SASPO, shall be communicated to DLA and affected Centers' Program Offices.

3.3. The AFMC Center, AFLCMC and AFNWC PMs and responsible Supply Chain AFSC PMs will:

3.3.1. Establish an effective DMSMS program internal to any program office item management organization (e.g. Planning & Execution Squadron) or other organizational element with responsibility for design control, acquisition, or management of any centrally managed item used within weapon systems or equipment. Internal procedures will be consistent with guidance provided in Attachment 1, Reference 5. For each program the responsible PM and responsible item management organization will:

3.3.1.1. Appoint a DMSMS manager and engineer to lead and be responsible for compliance with Section 2.1.2 and directly support the PM to accomplish program objectives.

3.3.1.2. Ensure a DMSMS Plan is developed IAW Section 2.1.3 above.

3.3.1.3. Ensure a DMSMS Management Team is established IAW Section 2.1.4 above.

3.3.1.4. Ensure all DMSMS relevant data is acquired IAW Section 2.1.5.

3.3.1.5. Execute selected DMSMS solutions consistent with mission requirements for the predicted life of the system.

3.3.1.6. Ensure weapon system or end item Chief Engineer, or Lead Engineers develop DMSMS resolutions that preserve OSS&E baselines.

3.3.1.7. Maintain history files documenting resolution of all DMSMS cases using the AF DMSMS predictive tool management information system managed by the SASPO.

3.3.1.8. Ensure and utilize communication exchanges of DMSMS information within the AF and DOD, other government organizations, and industry. As a minimum, provide for the exchange of information with the Government Industry Data Exchange Program (GIDEP). The GIDEP database can be accessed at: <http://www.gidep.org/>.

3.3.1.9. Upon receipt of a discontinuance notice or other DMSMS-related alert such as counterfeit notices from the Original Equipment Manufacturer (OEM) or predictive tool, the responsible Supply Chain Management office of the part will resolve the issue at their level if the solution does not involve redesigning Form, Fit or Function of the part. In the event that they cannot resolve the issue, they will determine the NHA and notify the responsible Product Group Manager Life Cycle Support Office Program Manager DMSMS Focal Point of the particular part and they will address proper DMSMS analysis, system health assessment or pursue a major redesign (e.g., changes that alter Form, Fit, or Function). The responsible Product

Group Manager, Life Cycle Support Office Program Manager will notify the product users, MAJCOMs and determine the proper course of action for funding and execution. For unresolved DMSMS issues process refer to paragraph 3.4.2.

3.3.2. Support requests for future demand usage requirements from other centers or military services in preparation for potential LOT buys.

3.3.3. Provide post-production support analysis for production contracts and other logistic support analysis tasking requirements.

3.3.4. Ensure all parts for both new and existing systems are screened for obsolescence through the use of DMSMS system studies using appropriate DMSMS obsolescence predictive tools, GIDEP, and the DLA Military Parts Control Advisory Group (MPCAG). The MPCAG maintains a list of all obsolete parts and can help prevent replacing one obsolete part with another.

3.3.5. Support SASPO in the identification of DMSMS metrics, the benefits of AF Predictive Tool and the applied use of Analysis and Resolution research.

3.3.5.1. Provide feedback on error data resulting from Technical Order data loads into the AF Predictive Tool by providing Technical Order change request information back to SASPO. Technical Order changes/corrections must be completed by the owning government organization to insure accuracy of the Technical Order and AF Predictive Tool.

3.3.5.2. Take action to incorporate error data issues identified by the AF DMSMS Tool service provider to Equipment Specialists upon initial loading of a technical order into the AF DMSMS predictive tool. Technical Order changes/corrections must be completed by the owning government organization to insure accuracy of the Technical Order and AF Predictive Tool.

3.3.5.3. Provide feedback on recommended solutions identified through the AF DMSMS Predictive Tool and Analysis and Resolution research by incorporating actions taken by the owning organization within the AF DMSMS Predictive Tool. Feedback is required to evaluate the benefits and cost savings.

3.3.5.4. Upload the AF DMSMS predictive tool history file indicating all actions taken to close out DMSMS cases.

3.3.6. Manage obsolescence at the piece part level or lowest practical level.

3.3.7. Establish funding regarding budgeting and costs associated with DMSMS management.

3.3.8. Identify and flow down DMSMS requirements on Contractors utilizing the contractual package.

3.3.9. Current or potential obsolescence issues identified by Program Office for DLA managed parts shall be communicated to DLA and SASPO offices.

3.4. The AFMC Centers LG offices will:

3.4.1. Designate a DMSMS lead focal point to serve as a conduit into the center. Advise the AFMC OPR if designation changes.

3.4.2. For the resolution of DMSMS issues within AFMC and across AF MAJCOMS, include as agenda items to the quarterly Product Support Integration Council (PSIC) DMSMS challenges and barriers that are unresolved by AFLCMC, AFSC, AFNWC DMSMS Teams. The PSIC is co-chaired by AFSC/LG and AFLCMC/LG. AFNWC may choose to use the PSIC forum, if desired.

3.4.3. Ensure Performance Based Logistics (PBL) agreements address mitigation of DMSMS risks to the program and the AF.

STEVEN J. MORANI, SES, HQ AFMC/A4
Deputy Director of Logistics,
Civil Engineering, and Force Protection

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

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[https://dap.dau.mil/aphome/Documents/Defense%20Acquisition%20Waterfall%20Chart%20with%20color%20enhancements%202017%20Dec%20final%20\(3\).pdf](https://dap.dau.mil/aphome/Documents/Defense%20Acquisition%20Waterfall%20Chart%20with%20color%20enhancements%202017%20Dec%20final%20(3).pdf)
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Abbreviations and Acronyms

- AFFARS**—Air Force Federal Acquisition Regulation Supplement
- AFI**—Air Force Instruction
- AFLCMC**—Air Force Life Cycle Management Center
- AFMAN**—Air Force Manual
- AFMC**—Air Force Materiel Command

AFMCI—Air Force Materiel Command Instruction
AFPD—Air Force Policy Directive
AFRIMS—Air Force Records Information Management System
AFSC—Air Force Sustainment Center
BCA—Business Case Analysis
BOM—Bill of Material
CLL—Continuous Learning, Logistics
COMDTINST—Coast Guard Commandant Instruction
COTS—Commercial Off- the-Shelf
DAU—Defense Acquisition University
DFARS—Defense Federal Acquisition Regulation Supplement
DLA—Defense Logistics Agency
DMSMS—Diminishing Manufacturing Sources and Material Shortages
DMT—DMSMS Management Team
DOD—Department of Defense
FMS—Foreign Military Sales
GIDEP—Government Industry Data Exchange Program
IAW—In Accordance With
ICP—Inventory Control Point
ILCM—Integrated Life Cycle Management
IM—Item Manager
LOT—Life of Type
MDS—Mission Design Series
MPCAG—Military Parts Control Advisory Group
NHA—Next Higher Assembly
O&M—Operation and Maintenance
O&S—Operation and Support
OPR—Office of Primary Responsibility
OSS&E—Operational Safety, Suitability, and Effectiveness
P&E—Program and Execution
PM—Program Manager
POM—Program Objective Memorandum

PSM—Product Support Manager

RDS—Records Disposition Schedule

SASPO—Strategic Alternate Sourcing Program Office

SME—Subject Matter Expert

SD—Standardization Document

Terms

Bills of Material (BOM)—A BOM defines products as they are designed (engineering bill of materials), as they are ordered (sales bill of materials), as they are built (manufacturing bill of materials), or as they are maintained. BOMs are hierarchical in nature with the top level representing the finished product which may be a sub-assembly or a completed item. BOMs are important to obsolescence management because you must have a complete list of all the individual items that make up a product if you are going to maintain a supply of all items that make up the end product.

Business Case Analysis—A business case analysis (BCA) is a decision support document that identifies alternatives and presents convincing business, economic, risk, and technical arguments for selection and implementation to achieve stated organizational objectives/imperatives. A BCA does not replace the judgment of a decision maker, but rather provides an analytic and uniform foundation upon which sound investment decisions can be made. The subject of a BCA may include any significant investment decision that leadership is contemplating. For example, a BCA may be used to substantiate the case to invest in a new weapons system; transform business operations; develop a web-based training curriculum; or retire an asset. In general, BCAs are designed to answer the following question: What are the likely financial and other business (non-financial) consequences if we execute this investment decision or this action?

Common Item—Applies to more than one Mission Design Series (MDS)

Diminishing Manufacturing Sources and Material Shortage (DMSMS)—The loss or impending loss of manufacturers of items or suppliers of items or raw material. DMSMS is caused when manufacturers of items or raw material suppliers discontinue production.

DMSMS Focal Point—The individual or organization responsible for taking timely actions and for coordinating with other organizations, as appropriate, to ensure the continued availability of DMSMS end items, parts, and essential materials needed to support current and planned defense acquisition, including the determination of future items requirements.

Indenture—The breakdown of an assembly to its constituent components, and the data that defines the relationship of the assembly to its components.

Indenture Chain—The “bottom up” linkage of a component to its end item through an upward progression of higher assemblies.

Indenture Structure—A conceptual tree that breaks an assembly down to its components, and in turn breaks each component down to its parts until the bottom level is reached.

Inventory Control Point (ICP)—The individual or organization responsible for the materiel management of a group of items either for a particular DOD component or for DOD as a whole. Materiel inventory management includes cataloging direction, requirements computation,

procurement direction, distribution management, disposal direction, and generally, rebuild direction.

End of Life/Life of Type (LOT) Buy—A one-time procurement, when all cost effective and prudent alternatives have been exhausted, for the total future requirements of an item no longer to be produced.

Market Research—A process used to collect, organize, maintain, analyze, and present data for the purpose of maximizing the capabilities, technology, and competitive forces of the marketplace to meet an organization's needs for supplies or services.

Open Systems Architecture (OSA)—A technical architecture that adopts open standards supporting a modular, loosely coupled, and highly cohesive system structure that includes publishing of key interfaces within the system and full design disclosure. Designed to improve performance and lower cost of weapon systems by taking advantage of competition and innovation in the commercial market. They mitigate obsolescence by facilitating technology insertion. Open systems are characterized by:

1. Well defined, widely used, preferably nonproprietary interfaces and/or protocols.
2. Use of well documented standards for defining those interfaces.
3. Provisions for expansion or upgrade through incorporation or addition of new technology.
4. Performance-based specifications to spell out what the system should do.

Peculiar Item—Applies to only one Mission Design Series (MDS).

Performance Based Requirement—A requirement stated in terms of performance (speed, altitude, reliability, interfaces, etc.) versus build-to-print requirements. Describing the requirement in terms of performance provides flexibility for the supplier to provide any design, which meets the performance requirement.

Program Manager (PM)—The PM, as defined in DoDD 5000.01, is the designated individual with responsibility for and authority to accomplish program objectives for development, production, and sustainment to meet the user's operational needs. The PM has responsibility and authority to accomplish objectives for the total life cycle of the program. The PM is responsible for assuring the OSS&E of systems, subsystems and end items.

Attachment 2

SAMPLE DMSMS LEAD SME APPOINTMENT MEMO

Figure A2.1. Sample DMSMS Lead SME Appointment Memo.



DEPARTMENT OF THE AIR FORCE
AFLCMC/WLN C-130 HERCULES DIVISION
638 SUPPLY CHAIN MANAGEMENT GROUP (AFSC)
ROBINS AIR FORCE BASE GEORGIA

Dd Mmm YYYY

MEMORANDUM FOR RECORD

FROM: Division Name, AFLCMC/XXX or XXX Supply Chain Management Group

SUBJECT: Appointment Memo, DMSMS Lead SMEs

1. In accordance with AFMCI 20-105, I hereby appoint the following individuals as Diminishing Manufacturing Sources and Material Shortages (DMSMS) lead action officers and SMEs:
 - Life Cycle Logistics / PM DMSMS SME: Global Address List (GAL) name
 - Engineering DMSMS SME: Global Address List (GAL) name
2. These individuals will solve DMSMS challenges IAW AFMCI 20-105 (DMSMS Program) and SD-22 (DMSMS Guidebook).
3. Contact the individuals appointed above for DMSMS questions.

SIGNATURE BLOCK

System Program Manager, Program Name
or Director, XXX Supply Chain Management Group