



# Department of Defense MANUAL

NUMBER 4140.01, Volume 3  
February 10, 2014

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USD(AT&L)

SUBJECT: DoD Supply Chain Materiel Management Procedures: Materiel Sourcing

References: See Enclosure 1

## 1. PURPOSE

a. Manual. This manual is composed of several volumes, each containing its own purpose, and reissues DoD 4140.1-R (Reference (a)). The purpose of the overall manual, in accordance with the authority in DoD Directive (DoDD) 5134.12 (Reference (b)), is to:

(1) Implement policy, assign responsibilities, and provide procedures for DoD materiel managers and others who work within or with the DoD supply system consistent with DoD Instruction (DoDI) 4140.01 (Reference (c)).

(2) Establish standard terminology for use in DoD supply chain materiel management.

b. Volume. This volume implements the policies established in Reference (c) and describes procedures for the DoD supply chain materiel management processes dealing with sourcing and acquiring materiel.

2. APPLICABILITY. This volume applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this volume as the "DoD Components").

3. RESPONSIBILITIES. See Enclosure 2.

4. PROCEDURES. See Enclosure 3.

5. **RELEASABILITY. Unlimited.** This volume is approved for public release and is available on the Internet from the DoD Issuances Website at <http://www.dtic.mil/whs/directives>.

6. **EFFECTIVE DATE.** This volume:

a. Is effective February 10, 2014.

b. Must be reissued, cancelled, or certified current within 5 years of its publication to be considered current in accordance with DoDI 5025.01 (Reference (d)).

c. Will expire effective February 10, 2024 and be removed from the DoD Issuances Website if it hasn't been reissued or cancelled in accordance with Reference (d).



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ENCLOSURE 1

REFERENCES

- (a) DoD 4140.1-R, "DoD Supply Chain Materiel Management Regulation," May 23, 2003 (cancelled by Volume 1 of this Manual)
- (b) DoD Directive 5134.12, "Assistant Secretary of Defense for Logistics and Materiel Readiness (ASD(L&MR))," May 25, 2000, as amended
- (c) DoD Instruction 4140.01, "DoD Supply Chain Materiel Management Policy," December 14, 2011
- (d) DoD Instruction 5025.01, "DoD Directives Program," September 26, 2012, as amended
- (e) Joint Publication 4-0, "Joint Logistics," July 18, 2008
- (f) DoD Instruction 8320.04, "Item Unique Identification (IUID) Standards for Tangible Personal Property," June 16, 2008
- (g) Defense Federal Acquisition Regulation Supplement, current edition
- (h) Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management," January 24, 2007
- (i) DoD Instruction 4715.4, "Pollution Prevention," June 18, 1996, as amended
- (j) Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," October 5, 2009
- (k) Under Secretary of Defense for Acquisition, Technology, and Logistics Memorandum, "Updated Green Procurement Program (GPP) Strategy," December 2, 2008
- (l) DoD Instruction 5000.64, "Accountability and Management of DoD Equipment and Other Accountable Property," May 19, 2011
- (m) DoD Directive 5106.01, "Inspector General of the Department of Defense (IG DoD)," April 20, 2012
- (n) Chapter 146 of Title 10, United States Code
- (o) DoD 4140.27-M, "Shelf-Life Item Management Manual," May 5, 2003
- (p) DoD Directive 5000.01, "The Defense Acquisition System," May 12, 2003
- (q) DoD 4140.26-M, "DoD Integrated Materiel Management (IMM) for Consumable Items," Volumes 1-6, September 24, 2010
- (r) Defense Logistics Manual 4000.25-2, "Military Standard Transaction Reporting and Accountability Procedures (MILSTRAP)," June 13, 2012<sup>1</sup>
- (s) Defense Logistics Manual 4000.25, Volume 2, "Defense Logistics Management System: Supply Standards and Procedures," June 5, 2012<sup>1</sup>
- (t) Government-Industry Data Exchange Program (GIDEP) Requirements Guide, SO300-BU-GYD-010, April 2008
- (u) Federal Acquisition Regulation, current edition
- (v) Military Standard 129, "Department of Defense Standard Practice: Military Marking for Shipment and Storage," current edition
- (w) DoD 7000.14-R, "Department of Defense Financial Management Regulations (FMRs)," Volumes 1-15, dates vary by volume
- (x) Defense Logistics Manual 4000.25-1, "Military Standard Requisitioning and Issue Procedures (MILSTRIP)," June 13, 2012<sup>1</sup>

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<sup>1</sup> Available on the internet at [www.dla.mil/dlms/olibrary/manuals/d1m/d1m\\_pubs.asp](http://www.dla.mil/dlms/olibrary/manuals/d1m/d1m_pubs.asp)

ENCLOSURE 2

RESPONSIBILITIES

1. ASSISTANT SECRETARY OF DEFENSE FOR LOGISTICS AND MATERIEL READINESS (ASD(L&MR)). In accordance with Reference (b) and under the authority, direction, and control of the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)), the ASD(L&MR):

a. Oversees the DoD supply chain sourcing and acquisition process to optimize resources to meet established support strategies that employ, to the furthest extent, collaboration between support providers and the customers.

b. Reviews and approves exemptions to integrated materiel management for purposes of national security or war conditions.

2. DoD COMPONENT HEADS. The DoD Component heads implement the procedures prescribed in this volume and ensure that supplemental guidance and procedures are in accordance with Reference (c) and this manual.

3. SECRETARIES OF THE MILITARY DEPARTMENTS AND DIRECTOR, DEFENSE LOGISTICS AGENCY (DLA). In addition to the responsibilities in section 2 of this enclosure, the Secretaries of the Military Departments and the Director, DLA (the Director, DLA, is under the authority, direction, and control of the USD(AT&L), through the ASD(L&MR)):

a. Develop and implement strategies for sourcing and acquiring materiel that:

(1) Address war and peacetime requirements.

(2) Provide for best value competition among materiel sources.

(3) Minimize support costs of weapon systems throughout their life cycle.

(4) Reduce the likelihood of acquiring unapproved product substitution or counterfeit products.

b. Select the best value support alternatives (organic support, commercial, or a mix of both as identified in section 2a of Enclosure 3 in this volume) to meet customer materiel requirements.

c. Establish requirements for materiel managers to:

(1) Actively interface with program and product support managers.

(2) Participate in sustainment planning for weapon system acquisition programs as soon as possible.

d. Conform to item management criteria approved by the ASD(L&MR) in assigning materiel managers.

e. Establish and implement programs to ensure that:

(1) The quality and reliability of secondary items are evaluated and improved yearly.

(2) Contract specifications are followed.

f. Establish a DoD standard strategy and program for diminishing manufacturing sources and materiel shortages (DMSMS) that will:

(1) Reduce or eliminate the cost and schedule impacts of all identified DMSMS problems.

(2) Help ensure that DMSMS problems do not prevent weapon system readiness and performance goals from being met.

ENCLOSURE 3

PROCEDURES

1. SOURCING AND MATERIEL ACQUISITION STRATEGIES. The Military Departments and DLA will:

- a. Minimize life-cycle costs with materiel sourcing and acquisition strategies and processes.
- b. Consider best-value selection among organic and commercial support alternatives.
- c. Maximize the use of existing government owned inventory before seeking new commercial support on all performance-based logistics (PBL) arrangements and partnering agreements.
- d. Designate theater acquisition strategy: use local sources of supply or in-theater alternative sourcing. Select strategy that meets strategic and contingency objectives in accordance with Joint Publication 4-0 (Reference (e)).
- e. Implement sourcing strategies that:
  - (1) Are based on an understanding of the technology involved in manufacturing items, the market place or supplier base, and the potential contracting issues associated with items and supply chain risks.
  - (2) Leverage DoD-wide expertise, experience, and resources.
  - (3) Consider a strategic commodity approach where similar items of the same commodity are procured or items from the same source are acquired. Include original equipment manufacturers that have existing strategic supplier alliances with the procuring activity. Use the strategic commodity approach in order to influence the market place and align DoD processes with market forces where possible.
  - (4) For items meeting criteria established in DoDI 8320.04 (Reference (f)) and Volume 9 of this manual, include all item unique identification requirements specified by part 252.211-7003 of the Defense Federal Acquisition Regulation Supplement (Reference (g)).
  - (5) Include for reparable items the acquisition of assets from commercial vendors and serviceable assets remanufactured by organic and commercial maintenance facilities.
  - (6) Consider “green” products or services where cost effective as first choice in all procurements in accordance with Executive Order 13423 (Reference (h)) and DoDI 4715.4 (Reference (i)), to include energy-efficient and sustainable energy.

(a) For combat or combat-related missions, give preference to energy-efficient products that meet operational needs and improve operational outcomes by reducing logistics burdens to operating forces or offer lower operations and sustainment costs.

(b) The materiel manager, after coordination with the Military Departments, may add new, environmentally preferable green items that are an equal alternative to the existing non-environmentally friendly items currently in the inventory.

(c) As part of the approach to promote green products and sustainable materials use, DoD Components will integrate actions targeted at reducing negative environmental impacts and preserving natural capital throughout the lifecycle of materials, taking into account economic efficiency and social equity in accordance with Executive Order 13514 (Reference (j)).

(d) Implement Green Procurement Procedures (GPP) for all products and services to the maximum extent practicable in accordance with USD(AT&L) memorandum (Reference (k)) and consistent with requirements of relevant federal procurement preference programs. GPP elements include:

1. Recovered material.
2. Energy efficient items.
3. Alternative fuels and alternative fueled vehicles.
4. Biobased products.
5. Non-ozone depleting substances.
6. Environmental preferable products to reduce toxic and hazardous chemicals acquired, used, or disposed.

(e) Consider environmental health and safety aspects during the acquisition process and for the duration of life cycle for all materials acquired and services performed.

(7) Reduce the likelihood of procuring unapproved product substitution or counterfeit products.

f. Ensure performance-based optimum life-cycle support solutions with the sourcing and acquisition strategies that:

(1) Employ practices that promote the health of organic and commercial sources, to include developing alternative sources, competitive practices, and spare parts breakout programs.

(2) Develop programs that promote quality, hardware reliability, and cost effectiveness throughout the DoD supply chain.

(3) Promote the information exchange (including electronic information) among materiel managers, sourcing managers, acquisition managers and, when applicable according to DoDI 5000.64 (Reference (1)), accountable property officers to:

(a) Encourage coordinated sourcing and acquisition efforts.

(b) Provide timely, complete, and accurate data that promotes coordinated decision-making.

(c) Provide visibility of procurement assets to help the materiel managers:

1. In filling customer orders.
2. Forecasting depot receipt workload.
3. Assessing future item support postures.

(d) Include visibility of all assets a vendor is delivering to satisfy a DoD contract, government-furnished property (GFP), and other assets the DoD gives to vendors.

(e) Promote the information exchange between materiel managers and suppliers to:

1. Encourage collaborative planning, forecasting, and replenishment.
2. Help the supplier plan internal operations to meet DoD requirements while minimizing costs.

(4) Develop management systems to maintain visibility and control over acquisitions, from identifying the need through receiving the materiel.

g. Incorporate sufficient flexibility into their sourcing and materiel acquisition strategies to be responsive to volatility in customer demand and supplier performance.

h. Promote quality and hardware reliability and prevent counterfeit materiel or unauthorized product substitution within sourcing programs for items that are determined to have unacceptable risks of being counterfeit.

i. Prevent counterfeit materiel or unauthorized product substitution.

(1) Establish procedures to implement DoD anti-counterfeiting policies in item procurement, testing, and inventory management to mitigate the risk of counterfeit items entering the global supply chain.

(2) Employ a risk-based approach to reduce the impact of counterfeit within DoD acquisition systems and its life-cycle sustainment processes.

(3) Develop and implement risk-based procedures to identify critical materiel that are susceptible to counterfeit.

(4) Establish methods to certify the authenticity of items not obtained from original manufacturers or franchised distributors.

(5) Ensure that personnel whose duties involve materiel acquisition, inspection, receiving, maintenance, repair, or storing are adequately trained to prevent, detect, report, handle, and protect suspected counterfeit products through existing product quality deficiency reporting processes including retention of the suspected counterfeit without payment to the contractor until resolution of the investigation.

(6) Use government and industry best practices to develop processes to detect the occurrence and address the consequences of products containing counterfeit components or malicious functions.

(7) Investigate the occurrences of suspect and confirmed cases of counterfeit items.

(8) Report all occurrences of suspect and confirmed counterfeit items to the appropriate authorities and reporting systems, to include the Government-Industry Data Exchange Program (GIDEP).

(9) Investigate and obtain remedies in all cases of confirmed counterfeit materiel under existing fraud, waste, and abuse authorities as directed in DoDD 5106.01 (Reference (m)).

(10) Retain suspected counterfeit items without payment to the contractor until resolution of the investigation.

(11) Develop, establish, and maintain performance metrics to assess the threats posed by counterfeit materiel and monitor the effectiveness and efficiency of anti-counterfeit measures and actions.

j. Adopt sourcing, pricing, and acquisition strategies with government and commercial practices that improve materiel management efficiency and effectiveness.

k. Maximize the efficiency and effectiveness of price negotiations in reaching a fair and reasonable price.

(1) Minimize price challenges.

(2) Utilize collaborative strategies to provide customer demand information to suppliers to enable them to improve planning, thereby reducing costs.

l. Establish joint acquisition groups to develop and implement a commodity sourcing strategy.

(1) Develop and use simulations and quantitative methodologies to improve sourcing and acquisition processes.

(2) Capture contractor production information in contracting procedures to help identify the risks of using commercial sources to meet war reserve requirements. Include surge capacity or any other production limitations that might hinder the contractor's ability to support unexpected but critical go-to-war requirements that arise.

m. Follow procedures involving remanufacturing at maintenance facilities as addressed in Volume 5 of this manual.

## 2. MATERIEL SUPPORT ALTERNATIVES

a. Selecting Materiel Support Alternatives. The Military Departments and DLA will:

(1) Evaluate and select materiel support alternatives to ensure timely, accurate, and complete customer satisfaction at minimum cost.

(2) Consider all materiel management costs, including acquisition, transportation, receiving and storage, maintenance, and disposal costs.

(3) Assess materiel support alternatives based on best value considering:

(a) Cost.

(b) Past performance of sources.

(c) Interoperability.

(d) Cost performance and control.

(e) Quality assurance.

(f) Security requirements.

(g) Equipment reliability.

(h) Surge capacity.

(i) Weapon system availability.

(j) Impact of surrendering or not developing an organic repair or sustainment capability.

(k) Impact of the availability of data and information relative to performance and lifecycle management.

(l) Any considerations unique to the materiel or to the end item or application that the materiel will support.

(m) Strategic and contingency objectives such as performance for host nations or partners outlined in Reference (e).

(4) Use, to the maximum extent possible, performance-based materiel support arrangements for PBL support strategies. Reflect required outcomes, rather than level of effort as the objective, through the use of performance-based contracts or organic arrangements (or suitable alternatives such as Military Department-level agreements).

(5) Decide whether to use organic versus commercial sources prior to developing an acquisition or sourcing strategy. Support this decision with a management analysis that considers:

(a) Commercial and organic support alternatives, as well as commercial and organic partnerships such as prime vendor programs and depot maintenance public-private partnerships.

(b) Compliance with chapter 146 of Title 10, United States Code (Reference (n)) when making decisions regarding public and private agreements.

(c) Whether materiel procurement or repair is restricted to one commercial or organic source of supply by, for example, technical data rights, repair procedures, tools and test equipment.

(6) Periodically review the continued validity of decisions to use a PBL or similar arrangement where a vendor is offered incentives to minimize environmental impact and total cost to the U.S. Government for hazardous materials used by multiple consumers. To limit the risks and costs of spills and leaks, rely on a strategy with a commercial source that delivers directly to consumers and provides services relative to the handling, transportation, storage, and disposal of those materials.

(7) Use best practices to prevent the likelihood of counterfeit material or unapproved product substitution items from entering the supply system.

(8) Balance support goals, total supply chain costs, and performance factors in assessing best value materiel support alternatives for meeting customer requirements. Establish an assessment process that is consistent with the analytical requirements as described in Volume 7 of this manual and these specific guidelines:

(a) Extend the scope of the materiel support alternative analysis from the point of designing and producing materiel through all echelons of management to delivering materiel to

the ultimate customer. Concurrently, consider all applicable enterprise and program performance objectives and cost trade-offs.

(b) As performance and costs for sources may change significantly over time, review the assessment of alternatives on a regular basis to ensure that the DoD is receiving fair and reasonable pricing from contractors.

(c) Accomplish the evaluation and selection of support alternatives on an item-by-item basis or for logical groupings of items with common characteristics, items with a specific end item application, or items from a common source.

(d) Analyze levels of existing DoD inventories to avoid creating excess stock positions, while purchasing the same items under an alternative support strategy.

(9) Comply with Reference (i) to prevent pollution related to hazardous materials. Follow the procedures relative to the handling, transportation, storage, and disposal of hazardous materials in Volume 5 of this manual.

b. Matériel Support Alternatives Other Than Stocking Inventory at DoD Facilities. The Military Departments and DLA will:

(1) Use alternatives for obtaining matériel support, other than stocking inventory at DoD facilities, wherever they are the best value alternative for providing matériel support that meets weapon system, equipment, and personnel readiness goals.

(2) Maximize the use of existing DoD inventory prior to entering an alternative support arrangement for commercial support. Best value assessment must include impact on the total DoD distribution network and customers, and effects on the costs of providing other items.

(3) Assess matériel support alternatives to identify the best value factors that:

(a) Satisfy demands by placing orders with suppliers for direct shipment to customers.

(b) Use commercial distribution systems.

(c) Purchase local, readily available matériel, primarily at retail supply activities.

(d) Rely more on other government activities for common support requirements.

(e) Use General Services Administration (GSA) Federal Supply Schedules.

(f) Have contractor logistics support contracts including, but not limited to, performance-based contracts stemming from PBL strategies.

(g) Have contractor support for assemblies and components with unstable designs.

(h) Use organic and contract manufacture-on-demand and other flexible manufacturing technology capabilities.

(i) Use host nation support and cross-Servicing agreements.

(4) Reduce or eliminate government facilities or capabilities that duplicate resources available commercially or at other government activities, wherever possible and when consistent with mission requirements and best value considerations.

(5) Implement procedures applicable to new and currently managed items to institutionalize the process of evaluating and selecting support alternatives.

(6) Review the validity of decisions regarding the selection of support alternatives other than DoD materiel stockage. Initiate such reviews based on input of information from operational customers, from industry surveys, or other sources. Ensure continued customer support and cost-effective use of scarce resources with validity reviews conducted on an individual item or item-grouping basis.

(7) Review and adjust current materiel requirements when support alternatives other than DoD stockage have been selected. Allow sufficient time to decrease DoD stockage requirements and existing inventory levels consistent with the new stockage requirements. Avoid unnecessary acquisition, repair, or storage costs by managing the timing of support alternative engagement.

(8) Include review procedures to address, at a minimum:

(a) Probability of Future Requirements. Validate the potential for a future need for support before adopting any support alternative.

(b) Availability of Commercial Support. Conduct market research and surveys to determine market availability, presence of in-place commercial distribution systems, and vendor interest in providing support.

1. Give specific consideration to items with high potential benefits from using commercial stockage alternatives such as consumable items that are commercial in nature, bulky, fast moving, hazardous, fragile, and have a short shelf life, and commercial products substitutable for military specification (MILSPEC) products so that commercial suppliers may be used.

2. Consider cost effective support alternatives using commercial items if they meet customer requirements, even when MILSPEC items are currently being used to meet customer requirements.

(c) Current Levels of DoD Inventory. Ensure maximum use of government-owned inventory prior to purchasing from commercial sources.

(d) Storage Costs. For items with high storage requirements (e.g., cube, cost, or obsolescence), consider any storage cost savings derived from a move to a commercial distribution system in the business case analysis.

(e) Distribution Costs. Consider any relative transportation costs in the business case analysis for a commercial or government managed distribution system.

(9) When determining cost effectiveness of stockage alternatives, include all applicable elements of cost and cost savings (e.g., inventory holding costs and second destination transportation) as well as timeliness and conformance with mission requirements.

(10) When calculating the potential inventory reduction savings of a support alternative, take into account additive costs with respect to both the items being considered and the rest of the DoD supply chain, if any (e.g., increased item price or higher administrative costs), before utilizing support alternatives.

(11) Use the results of readiness-based sparing (RBS) tools during the process of negotiating PBL agreements with vendors.

c. Local Purchase of Materiel Support. The Military Departments and DLA will:

(1) At the retail level, consider selecting local purchase of materiel and supplies as a support alternative if it is cost effective for specific items or logical groupings of items. Part 208.7003-1 of Reference (g) prohibits the local purchase of items that are critical to the safe operation of a weapon system, have special security characteristics, or are dangerous (e.g., explosives, munitions). Materiel management personnel will inspect visually or by other appropriate manner the items, packaging, and associated documentation to determine if the items appear to be authentic.

(2) Consider contract negotiation and administrative costs associated with local purchase in determining whether the use of local purchase authority is more cost effective than utilizing other established supply chain sources.

(3) Ensure retail activities notify the associated materiel manager when locally purchasing a centrally managed item so that the materiel manager can adjust future forecasts or, where applicable, improve PBL contracts to recapture retail support. Such notifications benefit retail activities making recurring local purchases with more responsive support at lower costs.

(4) Use purchasing tools such as government credit cards, GSA schedules, and in-place or corporate contracts to help minimize local purchase administrative costs.

(5) Ensure that their retail supply activities have access to a common repository of potential commercial sources to support materiel support requirements. Consider tools such as GSA Advantage, DoD Electronic Mall, and other online systems.

(6) Address the local purchase of shelf-life items and the limitations on local purchase of hazardous shelf-life items using procedures in DoD 4140.27-M (Reference (o)).

(7) Procure shelf-life items that are hazardous materials using the International Merchant Purchase Authorization Card only when authorized by DoD Components' hazardous control and management centers.

d. DoD Stockage of Inventories. The Military Departments and DLA will:

(1) Stock items at wholesale and retail levels of supply when other support alternatives have been determined not to meet mission requirements or are not cost effective.

(2) Develop and use economic and essentiality criteria to determine both stockage appropriateness and methodology for requirements computation.

(3) Address a variety of factors in the stockage decision criteria, including identifying those items critical to safely operating weapon systems or equipment, items requiring special security controls, and items constituting environmental and personal hazards. These include dangerous materiel such as explosives, munitions, chemicals or biological agents, and nuclear materiel.

(4) Periodically review the validity and currency of materiel stockage decisions. Generally, conduct reviews on homogeneous groupings of items, based on clearly described criteria and analysis results applied to item groupings.

(a) Categorize items reviewed for potential DoD stockage as "stocked" or "non-stocked."

(b) Consider all costs attributable to storing and shipping items in inventory (e.g., breakage, shelf life expiration, counterfeit material or unauthorized product substitution, hazardous materiel storage facilities, distribution, disposal, and total supply chain costs) to determine cost effectiveness of DoD stockage of inventory.

(c) Review the stockage classification of all demand-based and limited demand items at least annually.

(d) Reclassify non-forecastable items as demand-based forecastable items if they meet the criteria for use of a demand forecasting model. Reclassify demand-based items failing to meet the criteria for demand-based stockage as either limited demand requirements based on military mission essentiality, non-demand-based insurance requirements, or non-stocked.

(e) Reclassify limited demand, numeric-requirements items that meet the economic criteria for demand-based stockage accordingly. Reclassify limited demand, numeric-requirements items that do not experience recurring demands, but continue to be essential, as non-demand-based insurance items. Review insurance item requirements before initiating stock replenishment.

(f) Review planned program requirements at least annually and at the scheduled completion of the supported program. Reduce planned program requirements to zero at program completion.

(g) Review life-of-type (LOT) purchase requirements and related inventory stockage annually.

(h) Review non-stocked items with demands at least annually. Review non-stocked items without demands according to Defense Inactive Item Program procedures.

(5) Develop requirement levels for stocked items using readiness and demand-based, limited or non-demand-based computational methodologies. Use requirements determination methodology that is consistent with the reason for stockage. Also, consider stockage requirements with total supply chain costs, particularly the effects of stock positioning on transportation costs and the associated location specific stockage needs.

(6) Use readiness-based computational methodology for stocked items that are essential to weapons systems support and have sufficient forecasted future requirements to warrant economic stockage.

(7) Use demand-based computational methodology for such items having sufficient forecasted recurring requirements to warrant economic stockage.

(8) Consider stocking essential, non-weapon system items with low demand that do not economically justify being stocked as limited demand items and support through DoD stockage. The requirements computational methodologies of the Military Departments and DLA will provide minimum stockage for those items.

(9) Use a non-demand-based requirements development methodology for items stocked to fill nonrecurring demands, including insurance requirements, planned program requirements, and LOT requirements.

(10) Categorize items as non-essential and will not stock items that do not have sufficient future requirements to warrant economic retention.

(11) Limit inventory stockage of commercially available items for reasons other than cost effectiveness or security to minimum stockage necessary for readiness (e.g., war reserve requirements).

e. Retail Materiel Stockage

(1) Regardless of the funding source for the inventory, the Military Departments and DLA will govern the items stocked at the retail level throughout the DoD based on:

(a) Use of secondary item stockage for retail levels, which are categorized as either intermediate or consumer level, to provide optimum stockage for each materiel item or grouping of items. Incorporate a balance among specified performance goals and economy to include full consideration of military essentiality or the essentiality of the secondary items necessary to achieve platform mission capabilities.

(b) Minimizing the items stocked at the consumer level of supply on any basis other than demand. Operational considerations may require limited stockage of non-demand-based items at consumer levels. Develop and maintain the justification for such stockage for review at the location of the consumer activity responsible for managing such inventory. When stocking non-demand-supported items is required at the consumer level, compute the stocking of the same item at the supporting intermediate level on a demand basis.

(c) Authorizing an exception to the non-demand-supported item requirements for initial provisioning requirement items. If the forecasted (as opposed to actual) demand rate for a provisioned item would qualify the item for stockage, the item inventory may be positioned at both the intermediate and consumer levels during the demand development period. Initial provisioning items that do not qualify for stockage based on forecasted demand may be positioned at either the intermediate or the consumer level as non-demand-supported during the demand development period.

(d) Limiting retail level stock points, subsidiary inventories in self-service-type activities, shop stores, or similar activities to an operating level that is based on demands at that subsidiary point. Backup stocks may be maintained at a central location in support of those inventories.

(2) The Military Departments and DLA will:

(a) Employ actual demand experience in the development of operating levels for stockage computations when using an intermediate level of retail inventory. Additionally, consider variability of demand and the order and shipping time (OST) in developing safety and OST levels to minimize total variable cost for any given investment, weapon system performance objective, or fill-time objective. Use OST to compute levels that are consistent with established time-definite delivery standards.

(b) Determine requirements for a retail level of inventory in accordance with Volume 2 of this manual, even though stockage decisions or computations may be accomplished by a program manager, an inventory control point (ICP), or an activity other than that at which the stocks will be held.

### 3. ACQUISITION INTERFACES

a. DoD Components will ensure that materiel managers actively interface with accountable property officers, weapon system program managers, and product support managers by participating in sustainment planning as early as feasible for each weapon system acquisition

program. While participation should occur during all acquisition phases, materiel managers can make a significant contribution from the technology development phase through the engineering and manufacturing development phase.

b. In accordance with DoDD 5000.01 (Reference (p)), weapon system program managers will consider performance-based strategies for the acquisition and sustainment of products and services that are tailored to their individual programs. Accordingly, weapon system program managers and product support managers will:

(1) Collaborate with Military Department and DLA materiel managers to develop life-cycle sustainment plans.

(2) With Military Department and DLA participation, as appropriate:

(a) Develop and select performance-based materiel support strategies that optimize total system and materiel availability while minimizing operations and support (O&S) costs and logistics footprint.

1. Integrate weapon system-oriented approaches with commodity- or force-oriented approaches while taking into consideration existing strategic supplier alliances to derive the best value blend of existing and evolving, organic and commercial, weapon system-unique and common support structures.

2. Give consideration to existing organic supplies.

(b) Develop performance arrangements with commercial support providers and performance contracts with private sector support providers that ensure weapon systems and equipment are fully supported to meet the established sustainment objectives prior to the system's initial operational capability (IOC).

c. The Military Departments and DLA will:

(1) Coordinate with product support managers or product support integrators to develop and maintain DoD supply chains that achieve the warfighter's sustainment objectives, help minimize total ownership costs, and provide best value support to weapon systems throughout their life cycles.

(2) Designate a focal point, as appropriate, to:

(a) Represent the materiel management community on all associated DoD supply chain management activities, including integrated product teams and sustainment management teams.

(b) Provide supply management contract requirements, technical and quality data, and historical supply data as required.

(3) Maintain analytical tools and historical experience data, particularly comparisons between projected quantitative factors developed during the acquisition processes and actual experience. When doing so:

(a) Coordinate with the product support managers to maintain a robust data model and repository or guaranteed access to one that includes all logistics support data acquired during the acquisition process. The model and repository will allow managers to assess life-cycle and total ownership consequences.

(b) Organize data to aid in performing DoD supply chain analysis, supportability analysis, and other analyses during the weapon system acquisition process.

(4) Coordinate with product support managers to assess design stability during the acquisition development phase and determine financial risks that are applicable to life-cycle support.

(5) Document the extrapolations and deviations from the engineering data and logistics requirements developed during the weapon system acquisition process, including the basis for any changes.

(6) Coordinate engineering changes with the developers of the change to avoid unnecessary future procurements of planned item phase-outs.

d. Materiel managers or their focal points will:

(1) Serve as a participating member of the acquisition logistics management team and sustainment related integrated process teams in acquisition programs, beginning in the materiel solution analysis phase and continuing throughout a weapon system's life cycle.

(2) Provide supporting materiel managers with current information regarding acquisition and support decisions applicable to systems that are changing or being phased out.

(3) Participate fully in formulating supply chain management concepts and developing baseline comparison systems by providing applicable historical data on similar and predecessor systems.

(4) Provide materiel management information for:

(a) Weapon system solicitation documents (e.g., requests for proposals), including the statement of work and contract data requirements lists. Adequately reflect the requirement to minimize total ownership costs of materiel support, as defined by the materiel manager.

(b) Provisioning goals and objectives for inclusion in the product support strategy, beginning in the materiel solution analysis phase. Provisioning goals and objectives must be consistent with system readiness goals and objectives and DoD supply chain management objectives.

(5) Participate in the Parts Standardization and Management Committee and command standardization office representatives in the parts control program. Place emphasis on review of the program parts selection list and the non-standard part approval request at or before preliminary design review to ensure parts control and standardization is adequately applied.

(6) Maintain weapon system application files, pipeline times, and associated logistics data containing predicted and actual weapon system experience data. Materiel managers:

(a) In coordination with product support managers, review predicted and actual data to evaluate reliability and maintainability performance and the effectiveness of DoD supply chain support to system readiness objectives.

(b) Employ key DoD supply chain management metrics to evaluate customer wait time and weapon system readiness objectives.

(7) Provide comparative information to support logistics planning for supportability starting during the early concept exploration phases. Use those comparisons to evaluate the accuracy and effectiveness of DoD supply chain management support decisions.

(8) Ensure that any proposed changes to the engineering data or logistics planning are documented and coordinated. Materiel managers:

(a) Provide necessary notice and documentation to the appropriate materiel manager and any other concerned logistics manager for coordination before implementation. Provide this information to the accountable property office for retention in the accountable system of record, when applicable, in accordance with Reference (l).

(b) Maintain an audit trail of any changes, to include a cost assessment and the rationale for change.

(c) Ensure that the designated weapon system and system component maintenance facilities are notified in sufficient time for them to make needed adjustment to repair requirements and specifications.

#### 4. INTEGRATED MATERIEL MANAGEMENT

a. A single materiel manager or commercial equivalent will manage each item in the DoD supply system. Determining management responsibility is based on item management coding criteria, as agreed on by the DoD Integrated Materiel Management Committee and approved by the ASD(L&MR).

b. To achieve integrated management, it may be necessary to reassign the logistics management of a given item from one DoD Component to another. The procedures for accomplishing such reassignments are in DoD 4140.26-M (Reference (q)).

c. The materiel manager will accomplish inventory management:

(1) At the wholesale echelon of supply.

(2) At levels below wholesale down to and including the final retail level, which issues to the ultimate user.

(3) With an inventory management strategy that seeks to integrate wholesale and retail stock levels to reduce redundant inventories while providing timely supply support to customers.

d. The materiel manager will:

(1) Use the supply support request (SSR) process to ensure that sufficient stock is available to satisfy initial requisitions received from the user and customer. Funded SSR will get first priority.

(2) Establish integrated materiel management assignments by federal supply classification (FSC) in accordance with Reference (q).

(3) Use procedures in Defense Logistics Manual (DLM) 4000.25-2 and DLM 4000.25, Volume 2 (References (r) and (s)) for logistics reassignment of consumable and reparable items.

(4) Use procedures for integrating wholesale and retail stock levels that include multi-echelon supply planning techniques for level setting and stock positioning and, for demand planning, collaboration on forecasting or collection of demand at the lowest level.

## 5. QUALITY PROGRAMS

a. The DoD supply system will include only secondary items that conform fully to contract specifications, with the identity and traceability of the items.

b. The Military Departments and DLA will:

(1) Apply quality programs to all applicable segments of the acquisition process.

(2) Include acquisition segments for a pre-contract award, contract award, contract administration, supply management, and feedback.

(3) Develop action plans to:

(a) Correct deficiencies identified in the quality process.

(b) Prevent counterfeit materiel or unauthorized product substitution items from entering the supply system.

(c) Prevent items that have otherwise been compromised (e.g., damaged from a fall, from excessive heat or cold, or from improper storage) from entering the supply system.

(d) Ensure continuous improvement in the quality of secondary items.

(4) Include performance measures in the action plans and milestones in applicable acquisition phases.

(5) Document actions and accomplishments that carry out quality program objectives.

(6) Use applicable quality assurance methods to ensure that items conform to contract and technical requirements. Such methods include contractor selection and qualification programs; proper selection and application of contractual quality requirements; pre-award surveys; U.S. Government inspection at source or destination; pre-acceptance and post-acceptance testing; and training to address counterfeit parts prevention, detection, segregation, reporting, and disposal.

(7) Use quality assurance techniques and testing to stress conforming critical application items to contract and technical requirements. Identify individual items or families of items that are critical to the safety of personnel and to the operation of weapon systems or sensitive information technology systems. If pre-qualified suppliers are not available, take appropriate counterfeit countermeasures (e.g., testing of items, visual inspection including packaging and marking of the items, and traceability of documentation). Particular attention should be given to past performance when allocating quality assurance and testing resources among contractors and items.

(8) Identify items not conforming to contract specifications and take corrective actions under the provisions of the contract. Report items not conforming and rejected by the government, items classified as having a major or critical nonconformance, or items suspected or identified as counterfeit to the GIDEP Failure Exchange Database using the appropriate submittal document consistent with the GIDEP Requirements Guide (Reference (t)). Notify the appropriate legal office of any counterfeit or unauthorized product substitutions using quality assurance procedures as described in part 46 of the Federal Acquisition Regulation (Reference (u)) and part 246 of Reference (g).

(9) Utilize criteria and methods (e.g., Excluded Parties List System; Federal Awardee Performance Integrity Information System) to identify contractors who consistently fail to meet contract requirements, and prevent future contract awards to such contractors. Use information from the GIDEP Failure Exchange Database as part of this determination.

(10) Measure the quality of secondary items and document trends in item nonconformance, and ensure that the items are authentic. Place particular emphasis on measuring and documenting trends for “critical nonconformance,” “major nonconformance,” and counterfeit materiel or unauthorized product substitution as defined in References (t) and (u).

(11) Establish quality methods in distribution depots and storage locations to verify that items accepted, stored, packaged, repackaged, marked, and issued conform to applicable quality and technical requirements. Place emphasis on critical application items. Identify quality deficiencies during receipt processing. Use the procedures in Volume 5 of this manual to report and process quality deficiencies and to address quality control of materiel in storage. Respond promptly, in accordance with locally developed procedures, to any reports that a suspected or actual counterfeit part has entered the DoD supply chain.

(12) Identify and remove nonconforming items from the supply system, wholesale and retail levels. Dispose of counterfeit items according to instructions provided through GIDEP in a manner that prevents their re-entry into the DoD supply chain or private sector supply chain.

## 6. DMSMS

a. The loss or impending loss of manufacturers of items or suppliers of items or raw materials may cause material shortages that endanger a weapon system's or equipment's development, production, or post-production support capability. The Military Departments and DLA will:

(1) Proactively take timely and effective actions to identify and minimize the DMSMS impact on DoD acquisition and logistics support efforts.

(2) Develop and fund a standard DoD strategy and program to resolve problems created by DMSMS and to resolve those problems in a way that reduces or eliminates any negative impacts.

(3) Proactively consider DMSMS through a system's life cycle by anticipating potential DMSMS occurrences and taking appropriate logistics, acquisition, and budgeting steps to prevent DMSMS from adversely affecting readiness or total ownership cost.

(4) Pursue the actions in paragraph 6b of this enclosure for DMSMS issues, particularly when those issues threaten to degrade weapon system readiness below established goals.

b. The Military Departments and DLA will designate a focal point to plan and coordinate actions to minimize the impact of DMSMS. Such actions include:

(1) Promoting technical efforts (such as using emulation and generic arrays), non-technical efforts (such as sharing government and industry reports on DMSMS), and logistics research and development efforts to identify emerging technology that will neutralize or minimize DMSMS.

(2) Assessing DMSMS impacts on new DoD weapon systems by:

(a) Screening parts for potential technology obsolescence to ensure, to the maximum extent practical, that identified DMSMS items are not included in DoD systems during design,

redesign, or production. This includes screening parts for current obsolescence and for near-future obsolescence (i.e., items that may be obsolete in up to 5 years) as well as assessing the vulnerability of the parts to become obsolete. If an identified DMSMS item is not dropped during design, redesign, or production, the procuring activity ensures that there is continuous part availability and post-production support.

(b) Participating in post-production support planning activities conducted as part of the logistics support program and recorded in product support planning documentation.

(3) Establishing the most cost-effective solution consistent with mission requirements when there is a DMSMS issue. Cost effectiveness takes into account all research, design, engineering, test, and logistics costs throughout the life cycle.

(4) Conserving existing and on-order stocks by challenging suspected excessive requisitions, limiting automatic issue to established users with known requirements, and issuing on a case-by-case basis to other users until a cost-effective solution to the DMSMS problem is implemented.

(5) Communicating and exchanging DMSMS information within the DoD, with other government organizations, and with industry through the maximum use of alerts and the GIDEP.

(a) For the discontinuance of manufacturers' products, at a minimum identify the item, its technical specifications, the name of the manufacturer, when the product will be discontinued, where the product is used if known, and any existent government contracts for the product itself or form, fit, and function replacements.

(b) When DMSMS may affect an item, notify weapon systems program managers and item managers within sufficient time to take action before the item is no longer available.

c. When items are difficult to obtain because they are obsolete, out-of-production, or for other reasons, weapon system program managers and materiel managers will take measures to prevent potential counterfeit materiel or unauthorized product substitution items from entering the supply system.

d. Commanders of activities with responsibility for design control, acquisition, and management of any centrally managed item used within weapon systems or equipment will implement the DMSMS program by establishing internal procedures.

e. When an item is identified as DMSMS, the managing Military Department or DLA:

(1) Implements the most cost effective solution consistent with mission requirements.

(2) Encourages the existing source to continue production. This may include establishing a long-term relationship with the source using a multi-year contract.

(3) Uses the current item specification to find another source. For example, a smaller company might undertake production that no longer is profitable for a larger company.

(4) Converts the existing item specification to a performance-based specification, which provides more flexibility in acquisition approaches and facilitates identifying another source.

(5) Obtains an existing substitute item that will perform fully (in terms of form, fit, and function) in place of the DMSMS item or one that, while it would satisfy one or more functions, might not necessarily perform satisfactorily in all of them (limited substitute).

(6) Redefines requirements through applicable engineering support activities, and consider buying from a commercial source. This redefinition may include MILSPEC tailoring. Such a course of action might induce the emergence of additional sources.

(7) Uses current manufacturing processes to produce a substitute item (form, fit, and function) for the unobtainable item. Using emulation technology is particularly effective in producing substitute microcircuits. Through microcircuit emulation, inventory is reduced as obsolete items are replaced with state-of-the-art devices that are manufactured and supplied on demand. Emulation may be a more preferred alternative if the part is used in a wide variety of functions.

(8) Makes a bridge buy of a sufficient number of parts to allow enough time to develop another solution.

(9) Makes a LOT buy. Based on estimated life-of-system requirements, a Military Department or DLA may make a one-time procurement of enough materiel to last until the end items being supported are no longer in use. Include sufficient materiel in LOT buys to provide government-furnished material (GFM) for repair and for piecework applications in the procurement of additional systems, equipment, spare assemblies, and subassemblies. The decision to make a LOT buy and the quantity procured should depend on the availability and cost of assets from all sources, including repair, reclamation, and de-installation. Unless otherwise specified, a LOT buy will require military packaging due to the anticipated long storage duration.

(10) Reclaims the government-furnished equipment (GFE) and reissues it to a new source to help establish production capabilities in accordance with the procedures in Part 245 in Reference (g), if a contractor using GFE stops production.

(11) Reclaims DMSMS parts from marginal or out-of-service equipment or, when economical, from equipment that is in a long supply or potential excess position.

(12) Reverse engineers the item to develop an exact replica of the item through a review of available technical data, testing, physical disassembly and inspection, and analysis of functions performed by the item.

(13) Modifies or redesigns the end item to drop the part in question or replace it with another. That option may be more cost effective if the end item contains several DMSMS parts.

(14) Replaces the system in which the DMSMS item is used. That alternative may require extensive cost analysis.

(15) Requires the using contractor, through contractual agreements, to maintain an inventory of DMSMS items for future DoD production demands. Weigh that option against the cost of the DoD maintaining an inventory and supplying the items as GFM.

(16) Obtains a production warranty, if possible, from the contractor to supply the item or items for a specified time (life of equipment) irrespective of demands.

f. The Military Departments and DLA will send to the cognizant materiel manager the information that was originally obtained from industrial sources about an actual or prospective announcement of a manufacturer's intent to stop production. This information will allow DMSMS broadcast alerts to be generated, if applicable. The cognizant materiel manager will notify the GIDEP to establish a DMSMS case.

g. The Military Departments and DLA will ensure that the ICP maintains post-action surveillance throughout the life of DMSMS items in the DoD supply system.

h. DLA or the managing Military Department as well as security assistance customers who use the specific items will:

(1) Respond to requests for requirements information needed to decide the best course of action for ensuring continued supply of DMSMS items. Timely responses are required to meet contractor-imposed final action deadlines.

(2) For DMSMS cases involving multiple parts and multiple users, establish integrated product teams to coordinate DoD assessment and response to ensure that adequate logistics support is maintained for affected weapon systems. Logistics support includes material condition assessment using methods for care of supplies in storage as described in Volume 5 of this manual.

## 7. MANAGEMENT OF EXCESS ON-ORDER ASSETS

a. The DoD Components will establish a management process for excess on-order assets that seeks to minimize those excess assets where cost effective and in the best interests of the U.S. Government. The process will apply to secondary item assets that are above an item's approved acquisition objective that are on-order either in a purchase request before contract award or in an awarded contract.

b. When changes in an item's requirements cause excess on-order assets, materiel managers will follow their Component's management process and take timely action to:

(1) Reduce or cancel orders (purchase requests) before contract award.

(2) Consider terminating items under contract.

c. Based on the dollar value of the excess on-order assets, the management process will have required levels of authority for deciding when to reduce, cancel, or retain on-order excess assets. The process will also ensure that such decisions are subject to review and approval by a management level determined by the DoD Component. As part of the process, materiel managers will:

(1) Reach and implement termination and reduction decisions in a timely fashion.

(2) Maintain records of retention, termination, or reduction decisions with the coordination of associated actions across functional areas.

d. The DoD Components will ensure that their process for managing on-order excess assets:

(1) Is fully documented, including job roles.

(2) Identifies, for materiel manager review, items for which requirements have been reduced during any phase of soliciting and awarding of a contract.

(3) Places particular emphasis on reducing or canceling purchase requests before contract award to avoid potential liability for contractor termination costs.

(4) Includes materiel reduction coordinators or decision review boards to ensure management emphasis on prompt reduction or cancellation of orders with excess assets.

(5) Establishes reasonable dollar value thresholds that ensure the application of graduated levels of authority and effort in making decisions regarding on-order excess assets and in verifying and approving those decisions. The result should be an appropriate level of management attention for the dollar value of the excess on-order assets.

e. When taking action with on-order excess assets prior to contract award, materiel managers will:

(1) Promptly request the contracting officer to reduce or cancel the order if requirements for items on order are significantly reduced or eliminated.

(2) Give particular emphasis to validating requirements data.

(3) Include security assistance and GFP requirements.

(4) Use the requirements data as the basis for contracts exceeding \$100,000.

(5) Conduct an audit according to the parameters in section 49.107 of Reference (u) for orders involving a settlement of \$100,000 or more.

(6) Pursue follow-up action on all requests for order reduction or cancellation within 20 calendar days to ensure that contract award quantities show reductions in requirements or cancellation as appropriate.

f. When taking action with on-order excess assets that are on an awarded contract, materiel managers will:

(1) Not pursue a termination action if their reviews disclose that the undelivered balance of the contract is less than \$5,000 in accordance with section 49.101, paragraph (c), of Reference (u).

(2) Promptly request a contract termination action if their reviews disclose that the undelivered balance of the contract is \$5,000 or more and a termination action is cost-effective and in the best interest of the U.S. Government.

(3) Base cost effectiveness on an economic methodology (e.g., an economic termination model) that compares the cost to complete the contract and hold items in inventory against the cost to terminate the same items from contract plus applicable re-procurement costs, considering:

(a) Estimated Completion Costs. The cost to complete the contract including costs of undelivered materiel and holding costs (e.g., storage and interest).

(b) Estimated Termination Costs. Termination costs include administrative costs and contractor fees, plus reprocurement costs, if applicable. Obtain estimated termination costs in a timely manner. In general, termination costs should be obtained within 21 calendar days of a request for termination action. If termination costs are not obtainable in a timely manner, estimates based on termination cost models may be used.

(c) Weapon System Life Cycle. Where feasible, appropriate proportion adjustments to the future requirements for items where weapon systems are in production and deployment, or disposal phases.

(d) Item Life Cycle. Where feasible, whether any item is being introduced to the DoD supply chain or reaching end of life, appropriate proportion adjustments to the future requirements.

(4) Reach decisions to modify, cancel, or continue the contract generally within 30 calendar days following their reviews of item requirements.

g. Upon reaching a decision regarding on-order excess assets, materiel managers will:

(1) Maintain documentation that supports their decisions, such as the factors used to make their decision and, if applicable, the results of applying an economic termination model.

(2) Ensure their decisions, including those not to terminate a contract with on-order excess assets, are passed to the required level of authority for approval.

(3) Coordinate their decisions to terminate a contract with the responsible contracting officer for implementation. The responsible contracting officer must communicate a decision not to implement a recommended termination to the required level of authority for review.

GLOSSARY

PART I. ABBREVIATIONS AND ACRONYMS

ASD(L&MR)	Assistant Secretary of Defense for Logistics and Materiel Readiness
DLA	Defense Logistics Agency
DLM	Defense Logistics Manual
DMSMS	diminishing manufacturing sources and materiel shortages
DoDD	DoD Directive
DoDI	DoD Instruction
FSC	federal supply classification
GIDEP	Government-Industry Data Exchange Program
GFE	government-furnished equipment
GFM	government-furnished material
GFP	government-furnished property
GPP	Green Procurement Procedures
GSA	General Services Administration
ICP	inventory control point
IOC	initial operational capability
LOT	life-of-type
MILSPEC	military specification
NSN	national stock number
O&S	operations and support
OST	order and shipping time
PBL	performance-based logistics
RBS	readiness-based sparing

SSR	supply support request
UII	unique item identifier
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics

## PART II. DEFINITIONS

These terms and their definitions are for the purpose of this volume and will serve as standard terminology for DoD supply chain materiel management.

accountability. The obligation imposed by law, lawful order, or regulation, accepted by an organization or person for keeping accurate records, to ensure control of property, documents, or funds, with or without physical possession. The obligation, in this context, refers to the fiduciary duties, responsibilities, and obligations necessary for protecting the public interest; however, it does not necessarily impose personal liability upon an organization or person.

acquisition. Obtaining logistics support, supplies, or services under an acquisition agreement or under a cross-servicing agreement. This includes purchasing (whether for payment in currency, replacement-in-kind, or by exchange for equal value), renting, leasing, or any method of temporarily obtaining logistics support, supplies, or services.

annual charge for funds invested in inventory. The current rate for long-term federal government securities or an alternative discount rate if that rate results in lower overall cost to the U.S. Government. Synonymous with the cost of capital.

assembly. In logistics, an item forming a portion of equipment that can be provisioned and replaced as an entity and that normally incorporates replaceable parts or groups of parts.

best value. As determined through the use of a business case analysis methodology or a methodology approved by the applicable DoD Component, the term applies to the proposed alternative that ranks the highest when cost and non-cost factors are evaluated.

case. Either an exterior container within a palletized unit load or an individual shipping container.

consumable item. An item of supply or an individual item (except explosive ordnance and major end items of equipment) that is normally expended or used up beyond recovery in the use for which it is designed or intended.

consumer level of supply. An inventory, regardless of funding source, usually of limited range and depth, held only by the final element in an established supply distribution system for the sole purpose of internal consumption.

cost-to-hold. The sum of the annual charge for funds invested in inventory, storage costs, and losses due to obsolescence, inventory losses, misplacement, theft, or damage.

counterfeit materiel. Materiel whose identity has been deliberately altered, misrepresented, or falsified including, but not limited to, any type of materiel that consists of:

A substitute or unauthorized copy of a valid product from an original manufacturer.

A product in which the materials used or the performance of the product has been changed with notice by a person other than the original manufacturer of the product.

demand. An indication of a requirement, a requisition, or a similar request for an item of supply or individual item. Demands are categorized as either recurring or non-recurring.

demand-based requirements. A requirements determination process that has a goal targeted at filling a percent of demand or at satisfying demand within a given period of time.

demand development period. The period of time extending from the date of preliminary operational capability to the time when spare and repair parts requirements can be forecasted based on actual demands using statistically valid methods.

DLM. A set of manuals that prescribe logistics management responsibilities, procedures, rules, and electronic data communications standards for use in the DoD to conduct logistics operations in functional areas such as supply, maintenance, and finance. These manuals collectively comprise the DLMs.

economic stockage. An item with demand-based requirements stocked based on economics when the cost of being out of stock is equal to or exceeds the cost of holding stock and is stocked at the wholesale level.

end item. A final combination of end products, component parts, or materials that is ready for its intended use (e.g., ship, tank, mobile machine shop, aircraft).

end-user. An individual or organizational element authorized to use supply items. The end-user is normally the terminal point in the logistics system at which action is initiated to obtain materiel required to accomplish an assigned mission or task.

excess. Materiel that has completed reutilization screening within the DoD and is not required for the needs and the discharge of responsibilities of any DoD activity.

exterior container. A container, bundle, or assembly that is sufficient by reason of material, design, and construction to protect unit packs and intermediate containers and their contents during shipment and storage as described in Military Standard 129 (Reference (v)). It can be a unit pack or a container with a combination of unit packs or intermediate containers. An exterior container may or may not be used as a shipping container.

failure experience data. A current compilation of failure analysis reports and failure data source documents maintained by the GIDEP Operations Center for use by all GIDEP participants. These reports are used to notify GIDEP participants about nonconforming parts, components, chemicals, processes, materials, specifications, test instrumentation, counterfeit material or unauthorized product substitution, safety, and hazardous situations, including health hazards. There are four types of failure experience data reports: agency notice action, alert, problem advisory, and safe-alert.

An **agency notice action** is issued by government agencies to report problems with products or processes. Unlike **alerts**, **safe-alerts**, and **problem advisories**, **agency action notices** do not include problem solutions or manufacturers' corrective actions, but they do document the occurrence of a problem. **Agency action notices** may be designated as "U" for unlimited release to all GIDEP participants or "L" for limited release (limited to only U.S. Government agencies or only defense agencies).

An **alert** is a report of an actual or potential problem with parts, components, materials, manufacturing processes, test equipment, or safety conditions that may have multiple applications in U.S. Government or industry and be of significance to other GIDEP participants. **alerts** are not to be used to report random part failures or failures resulting from applications outside of published design requirements.

A **problem advisory** is used to report nonconformances, which, unlike **alerts**, have a low probability of causing a functional failure. They do, however, report problems with products or processes that do not meet specifications. They can also be used as preliminary **alerts** where there is a suspected problem that is not completely defined due to a lack of data.

A **safe-alert** is a report of an actual or potential problem with parts, components, materials, manufacturing processes, test equipment, or safety conditions that may have multiple applications in U.S. Government or industry, which affects the safety of people or equipment.

FSC. A series of four numbers at the beginning of the national stock number (NSN) that designates the general commodity grouping of the item of supply (e.g., Class 5130 designates hand tools, power driven).

GFE. An item of special tooling, special test equipment, or equipment, in the possession of, or directly acquired by, the U.S. Government and subsequently furnished to the contractor for the performance of a contract.

GFM. Property provided by the U.S. Government for the purpose of being incorporated into or attached to a deliverable end item that will be consumed or expended in performing a contract. GFM includes assemblies, components, parts, raw and process material, and small tools and supplies that may be consumed in normal use in performing a contract. GFM does not include material provided to contractors on a cash sale basis nor does it include equipment, special tooling, special test equipment, or items to be repaired by commercial contractors for return to the U.S. Government.

green product. A product that exhibits the environmentally positive characteristics of an environmental organization approved through the DLA-chaired Joint Group on Environmental Attributes, and has a lesser or reduced effect on human health and the environment when compared to competing products or services that serve the same purpose.

ICP. An organizational unit or activity within the DoD supply system that is assigned the primary responsibility for the materiel management of a group of items either for a particular Military Department or for the DoD as a whole. In addition to materiel management functions, an ICP may perform other logistics functions in support of a particular Military Department or for a particular end item (e.g., centralized computation of retail requirements levels and engineering tasks associated with weapon system components).

identity. Original manufacturer, trademark, or other intellectual property, performance, part number, date code, lot number, testing methods and results, inspection, documentation, warranty, origin, ownership history, packaging, storage, handling, physical condition, or previous use.

implied shortage cost. The derived cost of a shortage of stock based upon a forecast of the number of days of delay in the availability of materiel.

individual item. A single instance of a stock-numbered item, a single assembly, or a single subassembly.

insurance item. A non-demand-based, stocked, essential item for which no failure is predicted through normal usage. However, if a failure were to be experienced, or a loss should occur through accident, abnormal equipment or system failure, or other unexpected occurrence, lack of replacement item will seriously hamper the operational capability of a weapon system.

inventory. Materiel, titled to the U.S. Government, held for sale or issue, held for repair, or held pending transfer to disposal. This definition covers the same population of items as the definition for inventory in chapter 4 of Volume 4 of DoD 7000.14-R (Reference (w)). Inventory does not include tangible personal property to be consumed in normal operations, operating materials, and supplies as defined by Reference (w).

IOC. The first attainment of the capability to use effectively a weapon, item of equipment, or system of approved specific characteristics that is operated by an adequately trained, equipped, and supported military unit or force.

item identification. A collection and compilation of data to establish the essential characteristics of an item that give the item its unique character and differentiate it from other supply items.

item management coding. The process of determining whether items of supply in FSCs for integrated materiel management qualify for management by the individual DoD Components other than the DLA or the GSA.

item of supply. A category of items identified by an NSN with the same form, fit, and function. The individual items (units) included in this category could be manufactured by multiple sources.

logistics reassignment. The transfer of integrated materiel management responsibilities from one manager to another.

losses due to obsolescence. Losses resulting from forecast error and obsolescence to include deterioration.

LOT buy. A one-time procurement, when all cost effective and prudent alternatives have been exhausted, for the total future requirement of an item that is no longer expected to be produced. The procurement quantity is based upon demand or engineering estimates of wear out rates or item malfunction or failure sufficient to support the applicable equipment until phased out.

material. Property that may be consumed or expended during the performance of a contract, component parts of a higher assembly, or items that lose their individual identity through incorporation into an end-item. Material does not include equipment, special tooling, special test equipment or real property.

material shortage. Shortage of any raw, in process, or manufactured commodity, equipment, component, accessory, part, assembly, or product of any kind.

materiel. All items necessary to equip, operate, maintain, and support military activities without distinction as to its application for administrative or combat purposes, excluding real property, installations, and utilities. Materiel is either serviceable (i.e., in an issuable condition) or unserviceable (i.e., in need of repair to make it serviceable).

materiel management. The phase of military logistics that includes managing, cataloging, demand and supply planning, requirements determinations, procurement, distribution, overhaul, and disposal of materiel.

materiel manager. Any DoD activity or agency that has been assigned materiel management responsibilities for the DoD and participating federal agencies. The term includes responsibilities performed by either wholesale materiel managers or retail materiel managers: managing, cataloging, demand and supply planning, requirements determination and definition, procurement, distribution, overhaul and repair of reparable materiel, and disposal of materiel.

military mission essentiality. An indicator reflecting the composite effect of an item on the overall military mission based on the most critical significant application of the item. Used in determining resource allocations, determining degree of management intensity, and communicating essentiality among the DoD Components.

modification. A U.S. Government-approved change in the configuration of a part or item that offers a benefit to the U.S. Government by correcting deficiencies, satisfying a change in operational or logistic support requirements, or effecting a life-cycle cost savings.

non-demand-based. A requirements determination process that is not based on forecasted demand, but qualifies stockage based on other criteria. Types of non-demand-based stockage are insurance stockage, LOT buys, and program-based buys.

O&S cost. Those resources required to operate and support a system, subsystem, or a major component during its useful life in the operational inventory.

operating materials and supplies. Consist of tangible personal property to be consumed in normal operations. Excluded are goods that have been acquired for use in constructing real property, stockpile materials, and inventory held for sale.

organic support. The capability of a Military Service or a Defense Agency to sustain logistics operations through U.S. Government organizational structures.

OST level. The quantities of materiel required to sustain operations during the interval between the time that an activity initiates a replenishment requisition and the time the activity receives the requisitioned materiel.

PBL. Logistics that delineate outcome performance goals of weapon systems, ensure that responsibilities are assigned, provide incentives for attaining these goals, and facilitate the overall life-cycle management of system reliability, supportability, and total ownership costs.

provisioning. The management process of determining and acquiring the range and quantity of support items necessary to operate and maintain an end item of materiel for an initial period of service.

RBS tool. An analytical capability primarily used to set sparing levels. Examples of other applications that an RBS tool can support include:

- Assessing the inventory investment required for the fielding of a new program (e.g., weapon system or subsystem).

- Negotiating supplier PBL agreements.

- Assessing the impact of reliability, maintainability, or supportability improvements on weapon system readiness.

- Planning and developing budgets.

- Conducting what-if exercises related to deployments.

readiness. A measure or measures of the ability of a system to undertake and sustain a specified set of missions at planned peacetime and wartime utilization rates. Examples of system readiness measures are combat sortie rate, fully mission capable rate, and operational availability. Measures take account of:

- The effects of system design, reliability, and maintainability.

The characteristics of the support system.

The quantity and location of support resources.

receiving. All actions taken by a receiving activity from the physical turnover of materiel by a carrier until the on-hand balance of the accountable stock record file or in-process receipt file is updated to reflect the received materiel as an asset in storage, or the materiel is issued directly from receiving to the customer.

reclamation. The process of reclaiming required serviceable and economically repairable components and material from excess or surplus property for return to the proper supply activity, whereas the residue is processed as disposable property.

reparable item. An item of supply subject to economical repair and for which the repair (at either depot or field level) is considered in satisfying computed requirements at any inventory level.

replenishment. Actions to resupply an inventory when it reaches the reorder point.

requirements computation. Any mathematical calculation performed to support requirements determination functions.

requisition. An order for materiel initiated by an established, authorized organization (i.e., a DoD or non-DoD organization that has been assigned a DoD activity address code) that is transmitted either electronically, by mail, or telephoned to a supply source within or external to the DoD (e.g., the GSA, the Federal Aviation Administration, or other organizations assigned management responsibility for categories of materiel), according to procedures specified in Reference (s) and DLM 4000.25-1 (Reference (x)).

retail. Level of inventory below the wholesale level, either at the consumer level for the purpose of directly providing materiel to ultimate users or at the intermediate or region level for the purpose of supplying consumer levels or ultimate users in a geographical area.

safety level. The quantity of materiel required to be on hand to permit continued operation in the event of a minor interruption of normal replenishment or a fluctuation in demand.

secondary item. An item of supply that is not defined as a principal item and includes reparable components, subsystems, and assemblies, consumable repair parts, bulk items and materiel, subsistence, and expendable end items, including clothing and other personal gear.

shelf-life item. An item of supply possessing deteriorative or unstable characteristics to the degree that a storage time period is assigned to ensure that it performs satisfactorily in service.

shipping container. An exterior container that meets carrier regulations and is of sufficient strength, by reason of material, design, and construction, to be shipped safely without further

packing (e.g., wooden boxes or crates, fiber and metal drums, and corrugated and solid fiberboard boxes).

SSR. A transaction identifying requirements for consumable items that is submitted by the DoD Component introducing materiel or a weapon system to the materiel manager.

storage costs. The variable costs of storing materiel. A storage cost factor is not variable (and therefore, not considered), if the cost would remain the same after eliminating 50 percent of the stored materiel. One percent of the annual average value of the relevant inventory for is used for storage costs unless actual variable storage costs are available.

supplier. Organic or commercial sources for items of supply.

supply chain. The linked activities associated with providing materiel from a raw material stage to an end user as a finished product.

supply chain management. The integrated process of supply chain materiel management begins with planning the acquisition of customer-driven materiel requirements for commercial sources and ends with the delivery of materiel to operational customers. It includes the materiel returns segment of the process, the flow of reparable materiel to and from maintenance facilities, and the flow of required information in both directions among suppliers, logistics managers, and customers.

supply pipeline. The link from the end-user to the retail level to the wholesale level of supply through which requisitions and materiel normally flow.

surplus property. Excess personal property not required by any federal agency as determined by the Administrator of the GSA.

suspect counterfeit. Materiel, items, or products in which there is an indication by visual inspection, testing, or other information that it may meet the definition of counterfeit materiel.

sustainability. Create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations.

system acquisition process. Process of providing a new or improved materiel capability in response to a validated need.

system acquisition program. A directed, funded effort that is designed to provide a new or improved materiel capability in response to a validated need.

total variable cost. The sum of the variable cost-to-order, variable cost-to-hold, and implied shortage cost. Procurement cycles and safety levels are determined through minimizing these costs for any given group of items in an inventory.

traceability. The process that connects the requirement to design implementation in parallel with life-cycle management events related to systems development, acquisition, property accountability, storage, operation, maintenance, safety, physical security, retirement, and disposal by commodity, e.g., a stock numbered product, a lot or batch of a product, a single instance of a stock numbered product, a single assembly or sub-assembly, an end item type, or a single instance of an item.

unique item identifier (UII). A set of data elements marked on items that is globally unique and unambiguous. The term includes a concatenated UII or a DoD recognized unique identification equivalent.

unauthorized product substitution. A situation arising when a supplier knowingly provides materiel other than that specified in the contract without obtaining prior approval from the contracting organization.

unique item level traceability. The requirement to trace life-cycle management events related to acquisition, storage, operation, maintenance, safety, physical security, retirement, and disposal by each individual item (e.g., for a single instance of a stock-numbered item or a single assembly or subassembly).

weapon system availability. As used in materiel management, the percent of time that a weapon system does not have a materiel failure that prevents it from performing its intended mission or missions.

wholesale. The highest level of organized DoD supply that procures, repairs, and maintains stocks to resupply the retail levels of supply. Synonymous with wholesale supply, wholesale level of supply, wholesale echelon, and national inventory.