

# WHOLESALE INVENTORY MANAGEMENT OF SECONDARY ITEMS

## 1. Introduction.

a. The defense of the United States rests upon this Nation's ability to project its skill and technology into the combat arena. Well-trained and properly equipped units form the Nation's prime deterrence. The intricacies of equipment and the diversity of organizations necessitate a complex and versatile support mechanism. Logistics continues to evolve our supply system into more economical and effective performance.

b. This unit will address inventory management policy in the Department of Defense (DOD) and how this policy drives logistics in the U.S. Army. It is devoted primarily to the role of the item manager of secondary items at the wholesale level. You will learn the basic principles of inventory management and know the functions of an item manager.

## 2. Principal and Secondary Items.

a. Principal items (sometimes referred to as major items) are end items and replacement assemblies of such importance, relative to combat success, that management techniques require centralized individual item management throughout the supply system to include depot level and items in the hands of using units. Principal items are managed through the use of allowance documents.

b. Principal items, to a large extent, drive the requirements for other items called secondary items. Secondary items are all items such as repairable components, subsystems and assemblies, consumable repair parts, bulk items, subsistence, and expendable end items. These items are managed based on demand rates and known changes in future requirements.

**3. The Function of an Inventory.** The stockage of inventory performs the vital function of decoupling. By this, we mean that

the stocks which are available at various echelons of the supply system allow units to operate on an independent or semi-independent basis. Without inventories, it is possible that units might have to curtail their operations when essential secondary items are required, but not available.

## 4. DOD Inventory Policy Development.

a. Prior to 1947, when DOD was established, each military service operated as an independent entity. When recognizing the national security by means of the National Security Act of 1947, a trend was clearly established, and continues today, towards centralization and elimination of duplication of management, whenever possible. Some of the more significant events have been:

(1) Establishment of the General Services Administration (GSA) in 1949.

(2) Establishment of the Defense Supply Agency (DSA) in 1961 (now the Defense Logistics Agency (DLA) as of 1976)).

(3) Establishment of the Army Materiel Command (AMC) in 1962.

b. In general, it can be said that reorganization and assignment of logistics responsibilities to these agencies demonstrated both an upgrading of logistics importance and the requirement for consolidation due to increased technology and resource constraints. The military services have continued to place emphasis on the development of unified logistics policies.

## 5. Army Wholesale Inventory Management.

a. The U.S. Army Materiel Command (AMC) is the principal manager of Army wholesale logistics. AMC is organized with

numerous Major Subordinate Commands (MSC's) (Figure 1). Five of these MSC's are responsible for materiel management in specific commodity areas. For selected weapons systems, management control during development and initial distribution is sometimes vested in a single individual known as a project/program manager. The project/program manager technique provides for the consolidation of functions of planning, controlling, progress reporting, and decision making. It establishes a basis which allows for a single authority (the project/program manager) to plan, direct, and control a weapons system.

b. HQ AMC maintains cognizance over a million items used by the Army and presently manages about 85,000 items. Items within the Army wholesale level are managed according to commodity groupings; e.g., missiles, weapons and fire control, tank and automotive, aircraft, electronics, and ground support equipment. Each commodity grouping is assigned to a specific MSC. The item managers at each MSC are the focal points for wholesale logistics management of Army items. An organizational unit that is established in the U.S. Army wholesale system with the primary responsibility for materiel management is commonly referred to as a National Inventory Control Point (NICP). Several of the MSC's have consolidated the materiel and maintenance management functions and have replaced NICP with IMMC (Integrated Materiel Management Center). A service item control center (SICC), also located at the NICP (or operating from a consolidated office) provides interface with the equivalent level of DLA, GSA, and the other military services.

c. AMC has management responsibility for an inventory of approximately \$25.2 billion on hand in depots in the Continental United States (CONUS) and \$42.5 billion in ammunition and other major items in the hands of the troops or at oversea depots. It monitors an annual expenditure of approximately \$17 billion. AMC directly employs approximately 5,800 military personnel and 72,000+ civilian personnel.

d. Stockage at the wholesale level is primarily in depots to support Army and other DOD and non-DOD forces on a worldwide basis. This stockage consists essentially of Army war reserves (Army prepositioned stocks) and peacetime operating stocks.

(1) Army War Reserve (APS) Stockage.

(a) These stocks are maintained to meet increased wartime consumption. They are intended to sustain combat operations until resupply can be established. Levels are expressed in days of sustainment and vary depending upon the activity for which the stock is being maintained. HQ, Department of the Army (HQ DA) must authorize any use of these stocks. CONUS Army prepositioned stocks are categorized as:

1 Contingency support stocks (CONSSTOCS) which are for the combat consumption of approved U.S. Army forces.

2 Priority mobilization (PRI MOB) stocks containing major items for mobilization and deployment of category I and II Reserve component units.

3 Other stocks of major items and secondary items authorized for procurement less those prepositioned.

(b) Operational projects are established by major Army commands (MACOM's) (approved by HQ DA) to acquire materiel for oversea or CONUS stockage to support specific operations, contingencies, or war plans.

(2) Peacetime Stockage. The level and quantities of stocks are determined based on initial provisioning for the major item or by replenishing requirements computation.

(a) Variable demand accommodation rates are developed so that the demand accommodation rate for the AMC cost differential (COSDIF) model stocked items

equals the desired operational readiness goal directed by DA for each weapons system/major item. The rationale is that the higher the desired readiness standard, the more items that should be stocked to help meet that degree of readiness. However, there are not sufficient resources to provide 100 percent demand accommodation for every system.

1 Items receiving 12 or more demands in a 1-year period by the NICP will be automatically stocked. This determination is made to minimize computer and manpower resources since the COSDIF model normally identifies items having 12 or more annual demands as cost-effective to stock.

2 Items receiving less than 12 demands a year will only be stocked as demand-supported items if their cost of stocking is less than or equal to the cost of not stocking.

3 Mission-essential or readiness-oriented items that do not qualify for stockage using the COSDIF model will be stocked if they meet the criteria of Numeric Stockage Objective (NSO) or insurance items.

4 NSO items include one-time or nonrecurring requirements such as modification kits, set assemblies, basic issue items, items used only in maintenance overhaul programs, life-of-type buys, or items that support low-density equipment and have repetitive but long intervals between demand because of a small number of customers. Also, those items which do not meet COSDIF stockage criteria, but are mission-essential or readiness-oriented, will be stocked because unavailability, if demanded, would cause essential weapons systems to be inoperative for any unacceptable length of time.

5 Insurance items are those mission-essential items that are source coded PB and are not expected to fail and, consequently, should not be demanded nor qualify for stockage using the COSDIF model, but must be stocked because, if they did fail, their unavailability would significantly impact on the

readiness condition of essential weapon systems.

6 All items are periodically reviewed to determine if they meet stockage, retention, and/or deletion criteria.

(b) Items not qualifying for COSDIF stockage are screened against international logistics and maintenance overhaul requirements. If no requirement exists and the item has been in the system for 3 years, it will migrate to a nonstocked category and a retention level will be computed by an economic retention model, and/or a manual contingency retention quantity will be applied.

## **6. Basic Principles of Inventory Management.**

a. Maximum Use of Automation. The supply system is worldwide and the importance of readiness directs a faster mode of transaction. No longer can we rely on the manual technique of supplying the troops. To be efficient, the computer must be used to the maximum extent possible.

b. Scientific Management.

(1) Economic Order Quantity (EOQ). EOQ is a policy for peacetime operations of supply on the most economical basis considering military necessity which is based on repetitive demands of secondary items. The economic order concept is a method of comparing the elements of the cost to supply an item. One element which affects all costs of supply is the quantity of items in the supply system. As an example, we may assume that a certain quantity of stock is carried throughout the system to meet a given rate of demand. If this quantity is increased while demand remains constant, certain costs of supply will also increase. These are the costs of stock itself, plus the related costs of maintaining the inventory, such as care and maintenance in storage, obsolescence, deterioration losses, and warehouse space costs. At the same time, other

costs associated with supply action (cost to order) will decrease because the item is required, procured, and requisitioned less often. The costs of packaging and transportation will also be reduced as the inventory manager can take advantage of carload lot shipments and larger packaging quantities per order. When quantities of stock are decreased to meet the same constant demand, the opposite effect occurs: holding costs are reduced, but ordering costs are increased because the item is requisitioned more often.

(2) Variable Safety Levels. In the past, the military departments produced segments of the materiel pipeline, treated demand as constant, and established fixed safety levels of 30 days or more for selected low-dollar value items. However, it was determined that to more closely represent the actual situation, the variability of demand had to be considered on an individual item basis. Hence, the need for variable safety levels arose.

(a) Under the variable safety level concept, some measure of total system performance must be decided upon. For example, the system must have items on hand and available to fill demands a certain percent of the time, commensurate with the availability of funds and the essentiality of the item to the customers' missions. This percentage denotes the level of protection that is afforded by a certain stockage level.

(b) In a statistical sense, 100 percent protection is impossible to achieve. There is always a definite possibility that an extremely large demand will occur, which would exhaust the on hand inventory before a replenishment arrives.

(c) The larger the safety level, the more the protection level increases. A large safety level also increases funding and holding costs. There is a point where the additional cost of both funding and holding costs would not justify the increased protection against out-of-stock positions.

(d) When funds are limited, item managers often reduce the variable safety level quantities by reducing the percentage of protection. Reduction of safety levels is a valid method of reacting to a budgetary constraint. The item managers need only to give the computer the desired level of protection and it will, in turn, compute the variable safety level.

(3) COSDIF/Operations Readiness-Oriented.

(a) The quarterly Operational Readiness-Oriented Supply System (OROSS) process selects items within a weapon system that have experienced demands within the past 2 years which have inventory management process codes (IMPC) of AA, AE, 1A, 1B, 1C, 1D, 1E, 1F, 3A, 3D, 3G, 4B, 5A, 7A, and 8A. It stratifies these items by demand frequency and rank number and displays them on the quarterly Weapon System Order of Merit Listing. The annual COSDIF process selects those items from this list having an average annual demand frequency of less than 12 and performs a cost-effectiveness analysis to determine the selection of an optimum customer shortage cost (COSDIF delta) that, when used in the cost decision mathematical model, will provide the demand accommodation required by the Operational Readiness Supply (ORS) rate assigned to the weapon system.

(b) When the selection of the optimum delta, is made, all the selected items within the weapon system are processed through the cost decision mathematical model for the selection of those items considered to be economically feasible for stockage. These items are listed in COSDIF sequence. This listing is provided for management review and necessary action for the implementation of the wholesale stockage policy, in accordance with Army Regulation (AR) 710-1.

(c) The delta used for each weapon system is posted to sector 00, MMD, for use in the IMPC migration routines of the Supply Control Study (SCS) process. This system will

analyze all selected items within a weapon system, and select those averaging less than 12 annual demands. The COSDIF process will perform a cost-effectiveness analysis of these items by using the cost decision mathematical model.

(d) In summary, the COSDIF/operation readiness-oriented theory is to analyze the cost to stock an item minus the cost to not stock an item.

(4) Retention Levels. Retention levels are composed of two elements:

(a) Economic retention formulas enable the inventory manager to know how many of an item to retain or how many to remove from the system. The formula determines at what point the cost of keeping an item is equal to disposing of it and then having to procure at a later date. If the decision is to dispose, the items are turned over to DLA.

(b) Contingency retention is a level established by the item manager based upon his knowledge of end item density, phase out dates, foreign-owned major items, etc. for the following reasons:

1 Item could have a functional use in future contingencies and the cost to hold is less than the future cost to procure.

2 Item has a current and future use but quantities must be procured earlier than required because of a declining production base.

3 Economic retention stock items for which potential demand in a contingency exceeds the economic retention level.

4 Item has potential use for foreign military sales, not identified under a Cooperative Logistics Supply Support Arrangement (CLSSA).

(5) Economic Cutback. Economic cutback is a formula used to determine if the

amount of an item on contract above the RO is worth the cost to cancel. It will also determine if it is cost-effective to continue that procurement and then hold the inventory. Some of the data terms are:

- (a) Unit price.
- (b) Average year demand.
- (c) Holding cost.
- (d) Shortage cost factor.
- (e) Average requisition size.
- (f) Administrative and penalty cost.

c. Selective Management/Management By Exception.

(1) The first policy of DOD is to manage Army inventories on an "exception" basis. This means that management attention is devoted to those secondary items which are "in trouble" or causing problems. To complement this policy, items are managed on a selective basis. This principle is based on the fact that approximately 20 percent of the inventory will account for 80 percent of the dollar value of annual inventory turnover. Naturally, we will devote most of our attention to the top 20 percent. In the Army, we categorize four groups for management purposes (Figure 2).

(a) Very-high dollar value items, which receive more than \$1,000,000 worth of demands per year. These items are reviewed whenever a transaction occurs or at least monthly.

(b) High-dollar value items, which receive between \$100,000 and \$1,000,000 worth of demands per year. These items are reviewed at least every 3 months.

(c) Medium-dollar value items, which receive between \$25,000 and \$100,000 worth of demands per year. These items are reviewed every 6 months at a minimum.

(d) Low-dollar value items, which receive less than \$25,000 worth of demands per year. This category needs to be reviewed only once a year.

(2) The top groups, the higher dollar value items, receive the most attention, while those items which are in the low-dollar value group receive the least. The system allows for exceptions to this general policy where items whose dollar value of annual demand may be relatively low but whose essentiality demands more management. The policy recognizes that managerial talent is a scarce and expensive commodity which must be apportioned on a priority basis. In addition, it allows for purchasing relatively large quantities of inexpensive items and substituting management for large inventories of expensive items.

(3) Since management resources are scarce and valuable, they must be applied to items which most require attention. In the Army, we employ the term "management by exception" to mean that certain problems or conditions will trigger the item manager's attention; the manager will likely give very little attention to items without problems. Some of the situations calling for management attention include:

- (a) Past-due back orders.
- (b) Changing demand or leadtime patterns.
- (c) Excess stock on hand.
- (d) Large dollar value of demands or procurement.
- (e) Criticality of the item.

(4) For stocked items, the wholesale item manager seeks to keep the pipeline full of materiel; that is, to maintain a continuous flow of materiel from the producer to the customer.

d. Defense Integrated Materiel Management (DIMM). This came about from the joint logistics commanders to eliminate unnecessary duplication in the management and logistics support, multi-used consumables, and nonconsumable items. The DIMM has become known as the one-item-one-manager concept. To implement and understand this system, let's look at the two groups (consumable and nonconsumable) individually.

(1) Management of Consumables. The current published policy contained in DOD 4140-26-M reveals the "Two Worlds of Logistics" concept originated in the early 1970's. In general, the policy established that those Federal Supply Classes (FSC's) wherein generic relationships dominate item use, FSC's, and items within those FSC's would be assigned to the Defense Logistics Agency (DLA) or the General Services Administration (GSA) for Commodity Integrated Materiel Management (CIMM). However, each item identified in the CIMM FSC's would be subjected to a service review by applying the Item Management Coding (IMC) filter of those specific items found to be weapon-system related. Those items identified as exceptions to the DLA/GSA management in the CIMM FSC's would be assigned to the military services for item management. All other FSC's and items within those FSC's would be assigned to the military services for Weapons Integrated Materiel Management (WIMM) or identified as excluded FSC's for various reasons; i.e., ammunition because of special storage and handling requirements, cryptomateriel because of special security measures required to safeguard the items, etc. On 15 Dec 83, the ASD(MRA&L) approved a new weapon system management sensitive definition and directed its implementation. This action abolished the WIMM and CIMM ("Two World's of Logistics") concept and subjects all items to item management coding. With the abolishment of the WIMM/CIMM concept, certain federal supply classes continue to be excluded from item management coding for reasons such as single agency, security, engineering/

procurement control, etc. Those federal supply classes which were unassigned under the WIMM/CIMM concept are assigned to DLA for integrated materiel management.

(2) Management of Nonconsumable Items. This is also referred to as a reparable. The items in this section were selected to be managed by the service who is heavily involved with the use of that item.

(a) Primary Inventory Control Activity (PICA). All nonconsumable items used by two or more services are identified and reviewed to determine which service should be the materiel manager. Assignment of materiel management responsibilities is weighed heavily in favor of the service having the largest technical and depot maintenance capability supporting the item, and considers the capabilities of the service initially developing the item.

(b) Secondary Inventory Control Activity (SICA). The military service(s) receiving materiel support from the PICA for selected logistics functions.

**7. Functions of Item Management.** The item managers, in managing specific Army items within the commodities assigned to them, perform the broad wholesale function of:

a. Cataloging. In any large supply system, it is necessary that every person involved in the system use the same "name" for the same item. To eliminate the confusion, items in the supply system have standard names and numerical identifications as well as standard descriptions. This permits all Army, the other military services, and DOD agencies to create a uniform means of communicating management information. The NSN is the standard means of identifying items in the Federal Supply System. The system that provides a standard language for this process is the Federal Logistics Information System. It applies to all items purchased, stocked, and controlled in the management, reporting, and distribution of

supply items. The Federal Logistics Information System is used for listing and identifying supply items in a common language. Several functional programs are associated with it that are carried out through DOD. These programs are used by item managers in their jobs, and the item manager helps to keep them functioning because it is up to him to ensure that information about supply items is accurate and up-to-date.

b. Acquisition (Procurement). The item manager has the authority to direct procurement to be accomplished subject to limitations of approved programs and directions from higher authority. Close coordination between the item manager and acquisition personnel is essential. The item manager's reorder point is only as good as the acquisition operation's ability to deliver materiel within the predicted acquisition leadtime.

c. Distribution. The distribution function involves the control of inventories to ensure that they are adequate but not excessive, and that they are strategically located so as to be most responsive to customers' demands. Redistribution action in lieu of acquisition is also a part of this distribution function.

d. Maintenance. The item manager has the authority to require that reparable items be repaired. In computing requirements, all assets (serviceable and economically repairable unserviceables) must be considered. Close coordination between the item manager, equipment specialists, and maintenance personnel is necessary to consider repair capacities versus related quantities and time schedules devised by the item manager. The users are of prime importance in this function, as no maintenance program can succeed without the timely return of unserviceable assets.

e. Disposal/Reutilization. In any supply system, there comes a time when it must be decided whether all or a part of the stock of an item should be kept for future use or should be removed from the system. Economic retention formulas enable the item manager to know how

many of an item to remove from the system. These formulas determine at what point the cost of keeping an item is equal to the cost of disposing of it and reprocurring it at a later point in time. After it has been decided to remove items from the system, they are turned over to DLA. DLA is responsible for the reutilization or disposal of DOD excess items.

f. Requirements Determination. Once support determinations are made as to which items are to be stocked, it then becomes the responsibility of the item manager to fill the materiel requirements as replenishable demands begin to develop. The item manager must maintain adequate stock levels in support of recurring demands and establish the appropriate records. In support of demands, the item manager must forecast how many items will be requested by customers and place orders for resupply even before the items have been actually requested. The forecasting process uses basic concepts of probability. Forecasted stock levels must be tempered by relative costs, item essentiality, and the availability of funds. If levels are too low, the system cannot satisfy demand, and costly weapons systems lay idle or essential combat forces are reduced in effectiveness. If levels are too high, not only has money been spent on inventories that may never be used, but a series of unnecessary expenditures is set in motion. More warehouses, more transportation, and more personnel are required; and the excesses thus generated must be purged from the system. Thus, the vital importance of requirements determination.

## 8. Basic Wholesale Requirement Elements.

a. Secondary items of supply which experience demands are usually “stocked”; that is, purchased in anticipation of customer demand. “Nonstocked” items are only purchased after a customer demand has been received. Requirements determination is the process of deciding how much inventory should be acquired and maintained for stocked items.

(1) For new items of supply, this is done through initial provisioning computation. A Forecast Average Monthly Demand (FAMD) is predicted based upon end item densities and upon anticipated failure rates.

(2) For established items of supply, an FAMD is based primarily upon past experience, modified by a Program Change Factor (PCF) if end item densities are changing. The PCF is calculated by dividing the forecast period density by the base period density. For example:

$$\frac{1,200 \text{ trucks (forecasted end item density)}}{1,000 \text{ trucks (historical end item density)}} = 1.2$$

The base period demand rate is then multiplied by the PCF to obtain the forecast demand rate.

(3) For medium-, high-, and very high-dollar value items, depot program consumption forecasting does not come from past program experience. Instead, the “maintenance parts explosion” process is the source of the parts consumption forecast. This process relies upon depots to report how many parts were used per 100 end items for each overhaul, repair, or other program completed. Once this usage factor is known for each repair part, it remains for the MSC to identify how many end items will be scheduled and when, for a similar program in the future. The forecast depot program consumption thus obtained is incorporated into the FAMD for each repair part.

(4) FAMD accuracy is greatly affected by the quality of the Army’s major item management. Density changes which are not properly recorded in the database will lead to incorrect PCF’s. Depot programs which are changed at the last minute can easily cause out-of-stock or excess stock positions for the repair parts affected.

b. Having forecast future peacetime demands, it remains to calculate how much inventory is needed. This is done by

determining how long the “pipeline” is; that is, how many months of supply should be ordered and stored. The elements of the pipeline are:

(1) Army War Reserve Stock (Army Prepositioned Stocks). These quantitative requirements are added for selected critical and essential repair parts to permit support of higher consumption in the event of war. They are not expressed in months of peacetime supply.

(2) Variable Safety Level (VSL). The variable safety level represents that quantity of stock that should be on hand in the inventory to permit continued supply operations in the event delays occur in the delivery of stock due in, or to satisfy a short-term unexpected increase in demands. Safety level stock would never be needed if demands and leadtime could be forecast exactly.

(3) Acquisition Leadtime Requirement. Since there exists a time interval between the placement of an order to industry and the receipt of the materiel into the wholesale system, it is necessary to establish a leadtime requirement which will enable the wholesale system to have stocks on hand to issue during the time an order is being filled. This leadtime requirement is acquisition leadtime. Acquisition leadtime is the time interval between the initiation of a procurement action and the receipt of a quantity of materiel into the wholesale system. The time used to measure acquisition leadtime is based on an average of past actual procurements. Acquisition leadtime is divided into two parts: Administrative Leadtime (ALT) and Production Leadtime (PLT).

(a) ALT is time elapsing between the determination that a requirement exists and the placing of an order or letting of a contract through the generation of a Procurement Work Directive (PWD).

(b) PLT is the time interval from the date of an award of an order or contract to the receipt into the supply system of materiel purchased in a quantity sufficient to fill

forecasted issue requirements with the next delivery.

(4) EOQ (Procurement) Cycle (EOQCY). This is based on EOQ concepts, and when converted to a time element, EOQCY represents the planned interval between successive replenishment actions and is that amount of operating stock required to satisfy the forecasted demand quantity during this period of time. The EOQ is the reorder quantity that minimizes the variable costs to order and the variable costs to hold the item. These costs will be discussed in greater detail in subsequent lessons.

c. Several decision action points will surface as a result of the requirements determination process, requiring the item manager to make decisions affecting their overall management; these are: (i) when to review, (ii) when to order, and (iii) how much to order. A short discussion of these decision action points follows, showing their effect on the future activity of each item managed.

(1) Review Cycle. It was previously pointed out that a specific time interval to review each item is established. The period of time between these scheduled reviews is called a review cycle and is designed to reduce the possibility of having an item reach into an excess position without the manager’s knowledge. Review cycles are usually established based upon the dollar value of forecasted annual demand. At a minimum, the review cycles will be established as:

<u>CATEGORY</u>	<u>REVIEW CYCLE</u>
Very high dollar value items	Each transaction, but at least quarterly
High dollar value items	Quarterly
Medium-dollar value items	Semi-annually
Low dollar value items	Annually

(2) Reorder Point (ROP). Because of the leadtime in placing and receiving procurements, orders for more stock must be placed before the stock is physically needed. Assuming a case of constant demand and constant leadtime, additional stock must be ordered when the system assets fall to the number of units that will be required during the forecasted leadtime. Therefore, a level of requirements called the ROP is established. This level of requirements consists of acquisition leadtime, variable safety level, and other requirements such as protectable Army war reserve, programmed requirements, etc. When assets are equal to or less than the ROP, an order (procurement work directive) must be placed to ensure a continuous and uninterrupted flow of materiel into the wholesale system.

(3) Requirements Objective. The level which represents the total of all funded requirements which an item manager is authorized to have on hand and/or on order at any given time is called the RO. Quantitatively, the RO is the sum of all the requirements in the ROP plus the EOQCY requirement. The total system applicable assets are then subtracted from the RO to determine the total number of items to procure. If applicable assets exceed the ROP, no procurement is made. The term "applicable assets" varies with the type of item being managed. The item manager of consumable items need only be concerned with serviceable assets on hand and due in, whereas the manager of a repairable item must be concerned with serviceable assets on hand and due in, unserviceable economically repairable items on hand, items in the process of being repaired, and unserviceable items due in to the wholesale system as field returns from the retail segment.

d. Each time total assets are drawn down to the ROP, more assets are ordered. In this way, the pipeline is "kept filled" with stock. Failure to order more stock soon after the ROP is reached can lead to being out of stock. Keeping the pipeline full is a task made much more

complex by the fact that demands and leadtime vary, so the ROP itself varies.

e. The following illustrations depict how these elements are stocked in wholesale computation (Figures 3 and 4).

**9. Summary.** This unit of instruction discusses various aspects of the management of secondary items and the major areas of discussion are:

a. The development of wholesale inventory management policies within DOD established a trend which continues today towards the centralization and elimination of duplication wherever possible.

b. These developments led to the revised publication of: The Defense Integrated Materiel Management Manual for Consumable Items (DOD 4140.26-M). The Joint Services Publication, "Logistics, Elimination of Duplication in the Management and Logistics Support of Multi-used Nonconsumable Items" provides uniform guidance and procedures governing the application of PICA materiel management assignment criteria, whereby one service will be assigned responsibility to provide certain logistics support functions to all current and future military users of nonconsumable items. Those military services using the item but not selected as the PICA will be designated a SICA.

c. A brief discussion of the wholesale stockage policy outlined specific criteria established by DOD for the management of Army war reserve stocks and peacetime stockage.

d. The functions of item management were then discussed relating the efficiency of inventory control upon effective interrelationships among the six functional divisions of inventory control.

e. Having established these interrelationships of functions, the discussion then leads to selective management of secondary

items, which is a form of management in which the degree of intensity of management, and of item review, is determined by the prime characteristics of the items being managed.

f. The subject of requirements determination was then discussed. Each function of the formula used to compute requirements was covered, with emphasis on those functions relating to the “basic elements” of requirements determination (variable safety level, acquisition leadtime, and EOQCY).

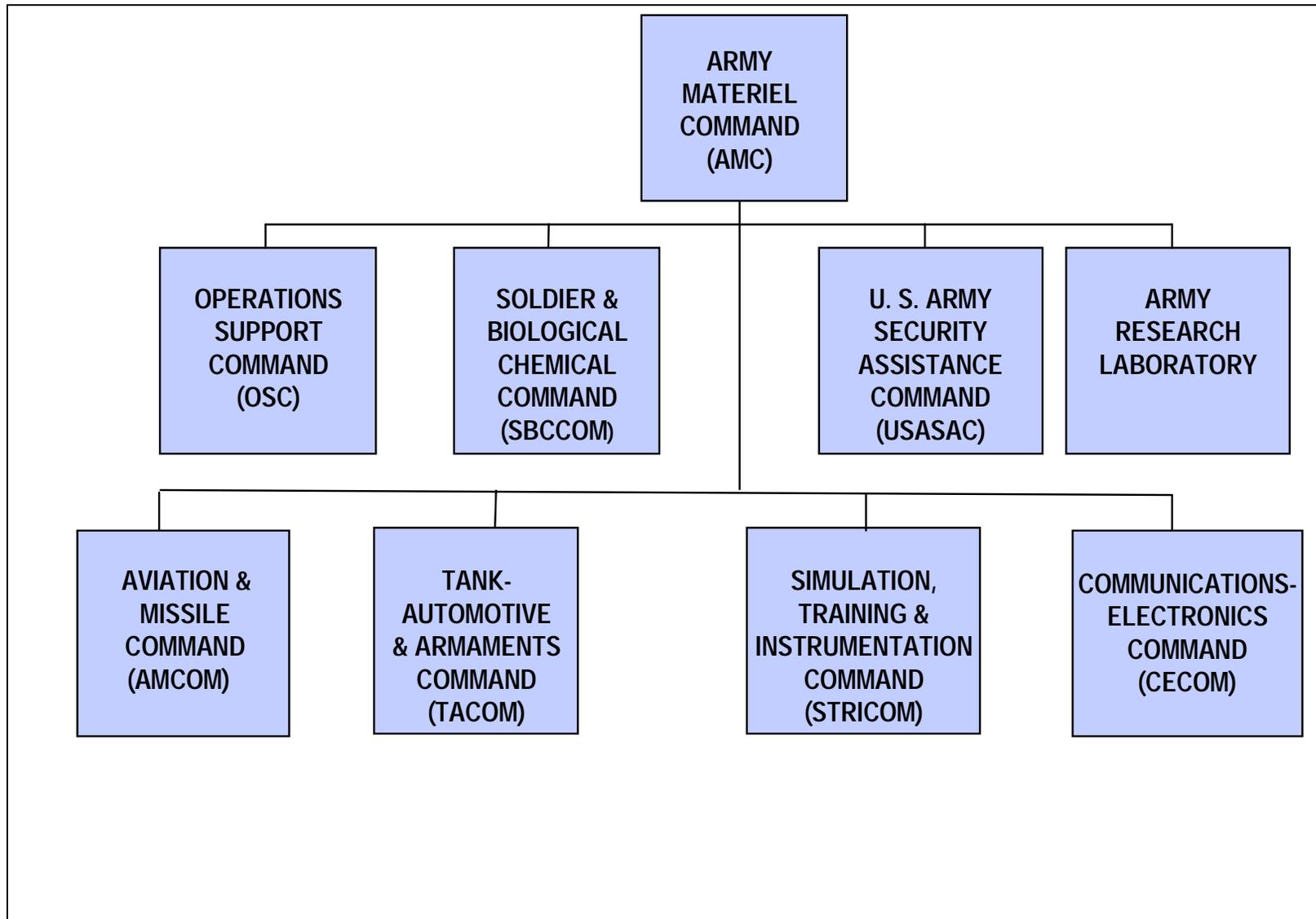
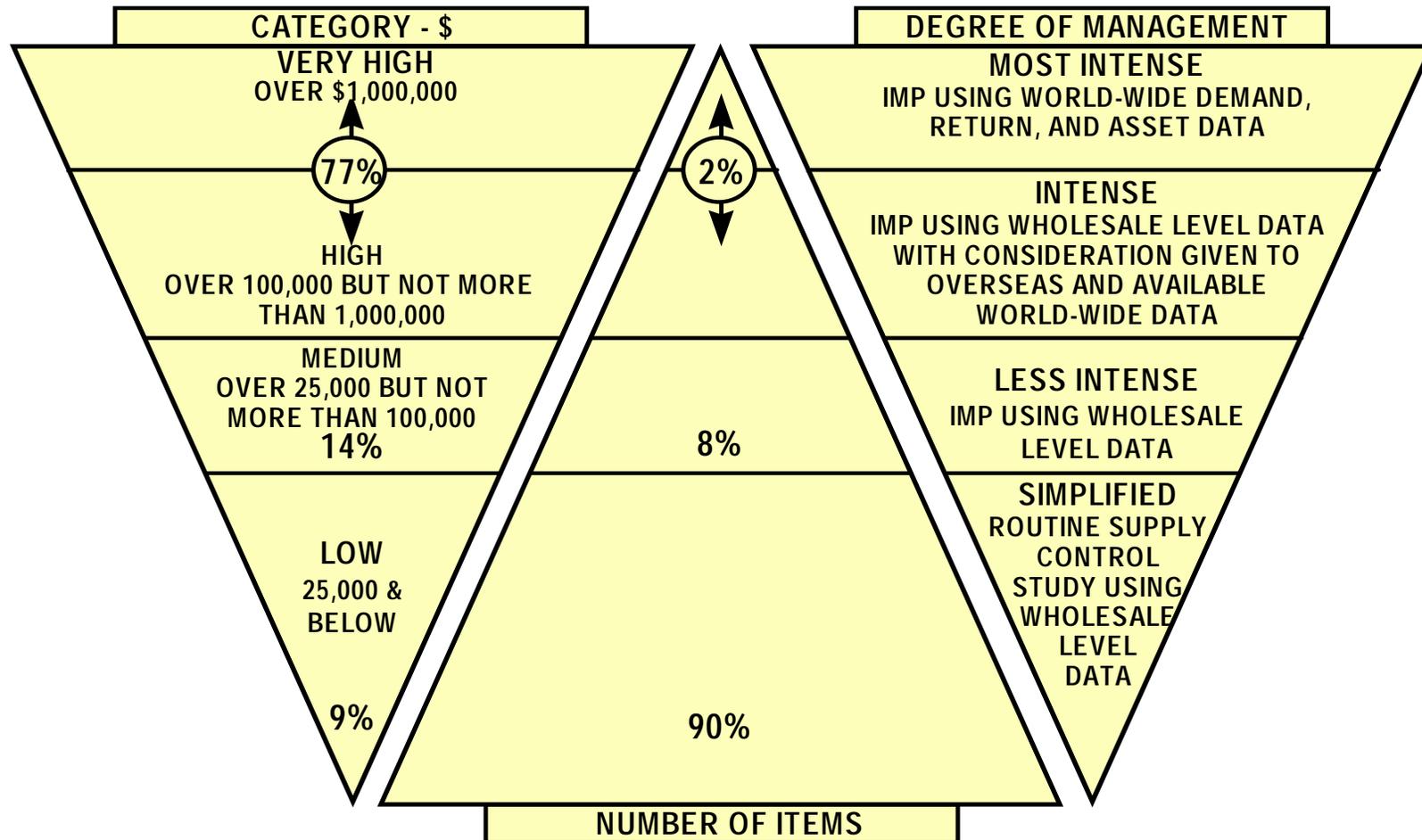


Figure 1

# SELECTIVE MANAGEMENT OF SECONDARY ITEMS

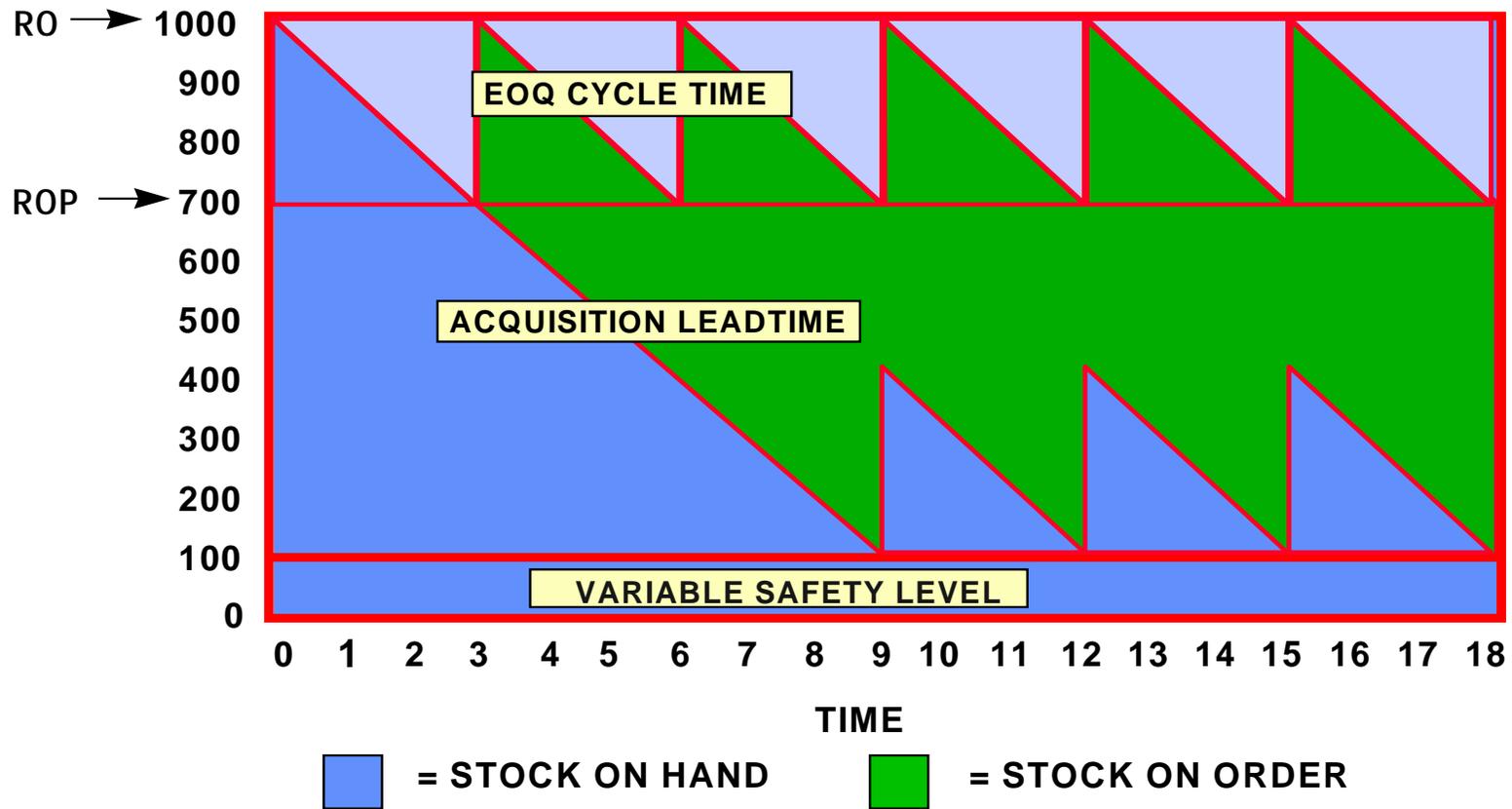


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Figure 2

# INVENTORY MODEL (WHOLESALE)

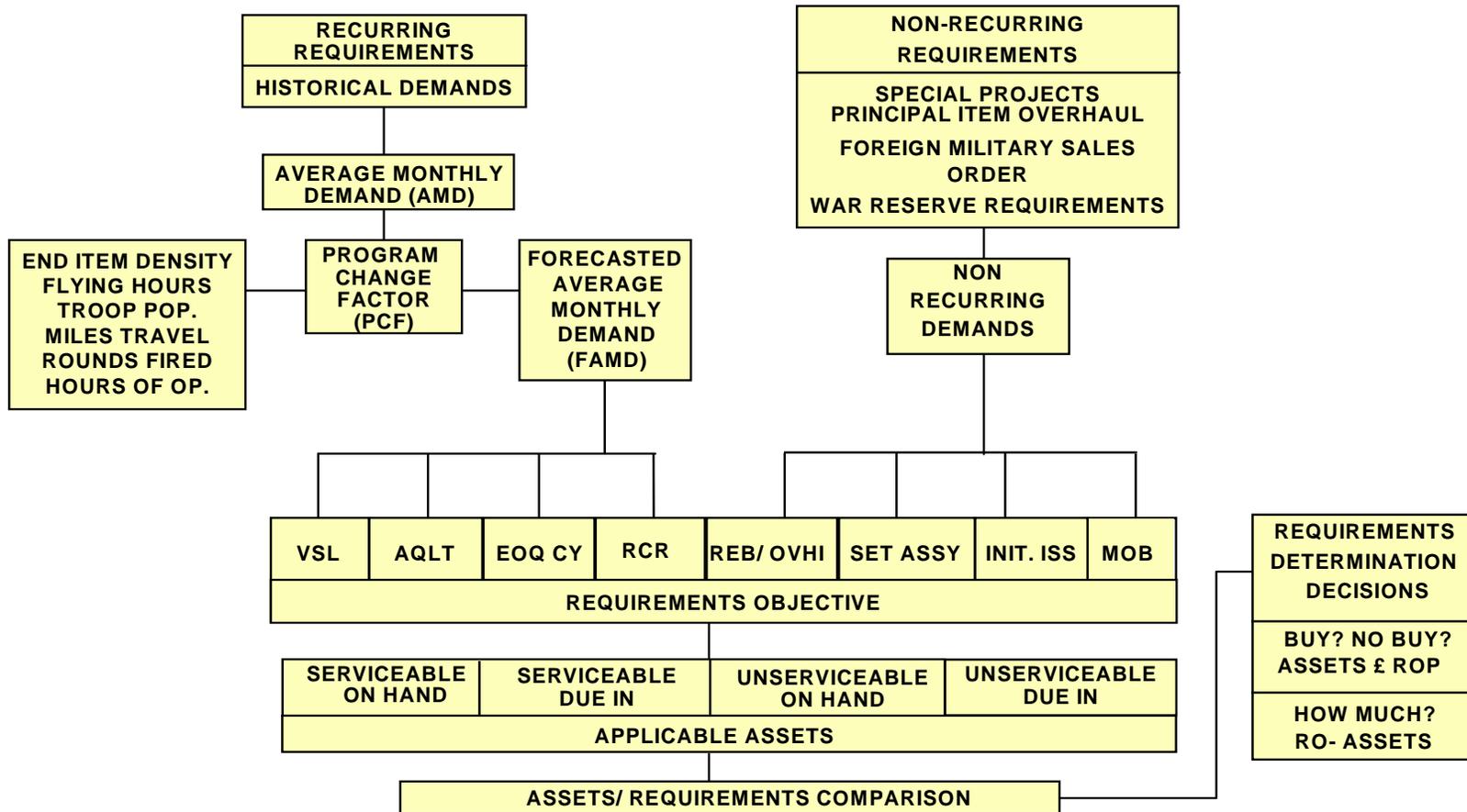
AMD = 100  
 SL = 1 MONTH  
 AQLT = 6 MONTHS  
 EOQ CT = 3 MONTHS



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Figure 3

# WHOLESALE REQUIREMENTS DETERMINATION PROCESS



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Figure 4

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