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THE SHELF-LIFE ITEM MANAGEMENT PROGRAM.(U)
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THE SHELF-LIFE ITEM MANAGEMENT PROGRAM

DEFENSE LOGISTICS ANALYSIS OFFICE

September 1978

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THE SHELF-LIFE ITEM MANAGEMENT PROGRAM

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DEFENSE LOGISTICS ANALYSIS OFFICE

September 1978

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FOREWORD

In January 1978, the Defense Logistics Analysis Office (DLAO) was given a study assignment to ascertain an appropriate method for monitoring and evaluating the effectiveness of the Department of Defense (DoD) Shelf-Life Item Management Program. Within this overall purpose, the following specific objectives were stated:

** Determine how each Component manages shelf-life items.

** Identify information needed to assess the effectiveness of the Program.

** Determine how each Component monitors the Program.

** Evaluate the adequacy of current shelf-life item management monitoring or reporting systems.

** Examine alternative methods for evaluating the effectiveness of the DoD and Component shelf-life item management program(s).

** Recommend methodology for evaluating the DoD Shelf-Life Item Management Program.

In making this study assignment, the Office of the Secretary of Defense advised that the conclusions and recommendations of the study must recognize the constraints of the Deputy Secretary of Defense Memorandum dated May 19, 1977, "Moratorium on the Establishment of DoD Information Collection and Processing Systems and Data Bases."

The research, data accumulation, and analyses aimed at the development of a DoD Shelf-Life Item Management Program evaluation system were completed in July 1978. This Report contains the findings, analyses, conclusions, and recommendations of the Study.

ROGER M. McKINLEY
Deputy Chief
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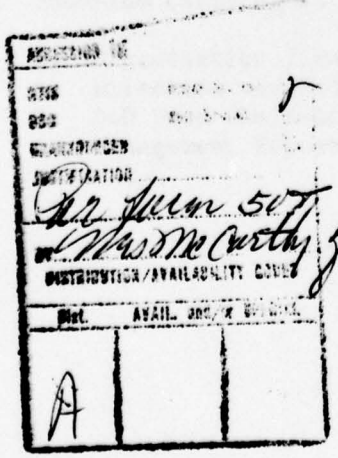

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CHAPTER I

INTRODUCTION

A. BACKGROUND

In 1969 the Analysis Division, now the Defense Logistics Analysis Office, conducted a review and examination of the Department of Defense (DoD) Shelf-Life Item Management Program. In making the study assignment, the Office of the Assistant Secretary of Defense (OASD) indicated that the Study — of 1969 — should place particular emphasis on reporting requirements for the DoD Shelf-Life Item Management Program.

The findings, analyses, and conclusions of the 1969 Study resulted in a series of recommendations for modifications of the shelf-life item program, including changes affecting definitions, policies, procedures, and management data. With regard to the key issue — the Report summarized:

"THERE IS NO EVIDENCE WHICH INDICATES THAT THE EXISTING DoD SHELF-LIFE ITEM MANAGEMENT PROGRAM IS INEFFECTIVE. CONVERSELY, HOWEVER, THERE IS NO STATISTICAL BASIS FOR ASSERTING THAT IT IS EFFECTIVE. THE MOST IMPORTANT RESULT OF THIS RE-EXAMINATION IS, THEREFORE, THE IDENTIFICATION OF MANAGEMENT DATA WHICH WILL PROVIDE THE BASIS FOR SUCH AN ASSESSMENT. THESE REVISED REPORTING DATA REQUIREMENTS SHOULD BE IMPLEMENTED AT THE EARLIEST DATE...."

Many of the proposals resulting from the 1969 Study are included in the revised DoD Instruction 4140.27, "Identification, Control, and Utilization of Shelf-Life Items," dated February 8, 1974, and/or DoD 4140.27-M, the Shelf-Life Item Management Manual of August 1976. Two specific proposals, however, were excluded and have not been implemented. These are the proposals to:

** Separately identify expendable and nonexpendable shelf-life coded items for program management purposes, and

** Establish a management data base for program assessment.

In 1977 the General Accounting Office (GAO) conducted installation level audits of disposal actions involving items with shelf-life codes. As a result of these audits, the GAO was critical of the DoD and recommended that a management reporting system be established to "routinely identify the extent to which materiel is being disposed of because of expired shelf-life."

The Office of the Secretary of Defense (OSD) response to the GAO criticism reiterated the finding of the 1969 Shelf-Life Study Report and the GAO; i.e., specific program evaluation data is not being provided, routinely. The OSD response also referred to a DoD moratorium, of 19 May 1977, on the establishment of information collection and processing systems. Finally, the response indicated that the Defense Logistics Agency (DLA), as System Administrator of the DoD Shelf-Life Program, would perform a study to determine the need and justification for a shelf-life item reporting system within the constraints of the DoD moratorium on such systems.

Subsequent to the GAO-OSD-DLA correspondence, the Director, DLA, and the Deputy Assistant Secretary of Defense (Supply, Maintenance and Services), DASD(SM&S), agreed that the Defense Logistics Analysis Office (DLAO), rather than the DoD Shelf-Life Program Administrator, should conduct the proposed study. Hence, in January 1978 the DLAO was assigned the task of determining the need and justification for a shelf-life item management information system.

B. PURPOSE AND OBJECTIVES

The purpose of the study is to ascertain an appropriate method for monitoring and evaluating the effectiveness of the DoD Shelf-Life Item Management Program. Within this overall purpose, specific objectives are to:

- Determine how each Component manages shelf-life items.

- Identify information needed to assess the effectiveness of the Program.

- Determine how each Component and/or management echelon monitors the Program.

- Evaluate the adequacy of current shelf-life item management monitoring or reporting systems.

- Examine alternative methods for evaluating the effectiveness of the DoD and/or Component shelf-life item management program(s).

- Recommend methodology for evaluating the DoD Shelf-Life Item Management Program.

C. SCOPE

The study scope considers and discusses all shelf-life items as defined in DoD Instruction 4140.27 and the Defense Shelf-Life Item Management Manual, DoD 4140.27-M. A shelf-life item is defined as:

- "An item of supply possessing deteriorative or unstable characteristics to the degree that a storage time period must be assigned to assure that it will perform satisfactorily in service.
  - "Type I Shelf-Life Item. An item of supply which is determined through an evaluation of technical test data and/or actual experience to be an item with a definite non-extendible period of shelf-life.
  - "Type II Shelf-Life Item. An item of supply having an assigned shelf-life time period that may be extended after completion of inspection/test/restorative action."

"Ammunition (Class V), perishable subsistence, and bulk petroleum commodities are excluded from the provisions" of DoD Instruction 4140.27 and DoD 4140.27-M and, therefore are excluded from the scope of this Study.

D. PROGRAM PERSPECTIVE

Very early in the progression of the review of shelf-life item management it was recognized that the number of items assigned shelf-life codes and given special management attention as "shelf-life items" is relatively small. Further, it was recognized that (a) the consumable vice nonconsumable characteristic of an item had an impact on management methodology, (b) several commodity areas (Federal Supply Classes) contain most of the shelf-life coded items, and (c) a small number of Inventory Control Points (ICPs) manage a large majority of the shelf-life items. The following data and narrative provide a broad perspective of the DoD Shelf-Life Item Management Program.

1. Shelf-Life Coded Items. Table I-1 shows the range of items assigned shelf-life codes in relationship to the total number of National Stock Numbered (NSN) items used by the Department of Defense.

Table I-1

SHELF-LIFE CODED AND NONSHELF-LIFE CODED ITEMS USED BY DoD

Item Category	Number of Items	Percent
Shelf-Life Coded:		
Consumables	36,188	0.9
Nonconsumables	7,644	0.2
Total Shelf-Life Coded	43,832	1.1
Nonshelf-Life Coded	3,818,366	98.9
Total DoD-Use Items	3,862,198	100.0

Source: Defense Integrated Data System (DIDS) Files and the 48th DoD Cataloging and Standardization Program Report.

Table I-1 illustrates that only 1.1% of the DoD interest NSNs are assigned shelf-life codes.

2. Consumable and Nonconsumable Items

The 1969 Shelf-Life Item Management Report proposed that nonconsumable items (i.e., reparable, investment or end items of supply to which shelf-life codes are assigned should be separately identified within any shelf-life reporting system. The Report also inferred that such items, with minor exception, are not managed as shelf-life items per se and, eventually, shelf-life item management reporting could exclude such items.

Headquarters level briefings, coupled with ICP visits and telephone queries confirmed the 1969 observations. That is, generally, assignment of a shelf-life code to a reparable, investment, or end item of supply is based on the fact that one of the consumable items included in the reparable, investment, or end item has a shelf-life code. These nonconsumable items, containing shelf-life consumable items as parts or components, are managed as "reparables," "investment items," or "end items"— not as shelf-life items.

While the 1969 proposal to separately identify consumable items from nonconsumables for shelf-life program management purposes was not implemented, it is possible, through the use of Defense Integrated Data System (DIDS) codes, to separately identify consumable and nonconsumable items. Table I-1 displays such a breakout for the 43,832 shelf-life coded items.

The Table illustrates that only 36,188 consumable items are assigned shelf-life codes and, hence, less than 1% of the DoD-interest NSNs are managed as shelf-life items.

3. Predominant Commodities

One or more consumable NSNs is coded for shelf-life item management in each of over 300 Federal Supply Classes (FSCs). However, 25,440 of the 36,188 consumable shelf-life coded items are in 13 FSCs. Seven of the thirteen FSCs contain over 1,000 shelf-life coded items each; these FSCs are:

FSC	Name	Items
1650	Aircraft Hydraulic, Vacuum, and De-icing System Components	1,116
5330	Packing and Gasket Materials	7,451
5910	Capacitors	5,871
6505	Drugs, Biologicals, and Official Reagents	1,314
6750	Photographic Supplies	2,249
8010	Paints, Dopes, Varnishes, and Related Products	2,190
8030	Preservative and Sealing Compounds	1,124

These seven FSCs account for nearly 60% of the consumable items managed as shelf-life items. The 13 FSCs contain 70.3% of the 38,166 consumable shelf-life coded items.

4. Shelf-Life Item Management Activities

Twenty-seven different Primary Inventory Control Activities (PICAs) manage one or more items having shelf-life codes. Of the 27, twenty PICAs manage one or more consumable items coded for shelf-life management. Within these, only seven PICAs manage a range of shelf-life items of 1,000 or more. These PICAs are:

	Shelf-Life Coded Items		
PICA	Consumable	Non-consumable	Total
Naval Aviation Supply Office	3,506	5,317	8,823
Naval Ships Parts Control Center	5,364	439	5,803
Defense Electronics Supply Center	5,900	0	5,900
Defense General Supply Center	4,864	0	4,864
Defense Industrial Supply Center	4,426	0	4,426
Defense Personnel Support Center	3,974	0	3,974
General Services Administration	5,357	0	5,357
Total	33,391	5,756	39,147

These data demonstrate that seven PICAs manage about 90% of the 43,832 shelf-life coded items and over 92% of the 36,188 consumable shelf-life items. The Naval Aviation Supply Office manages about 70% of the 7,644 nonconsumable items having shelf-life codes.

In summary, an overview of DoD-interest items having shelf-life codes indicates that:

— Approximately 1% of the DoD interest items have shelf-life codes assigned; less than 1% of the DoD interest items are consumable items managed as "shelf-life items."

— Thirteen or less commodity-oriented FSCs are predominant; these classes contain slightly over 70% of the shelf-life managed items.

— Seven PICAs are predominant, item-wise, in the shelf-life item management program.

These factors significantly influenced the approach pursued by this review and analysis, and the approach to establishment of a Shelf-Life Item Management Evaluation System.

E. STUDY APPROACH

The Study commenced with a review of OSD, Military Service, DLA, GSA, and GAO publications, reports, studies, and issuances pertaining to shelf-life items. To assure coverage of key issues, but avoid duplicative effort, special attention was given to review of:

— The DoD Shelf-Life Item Management Program Report of May 1969.

— The GAO reports of 1977.

— DoD Instruction 4140.27 of 8 February 1974 and its superceded version of 12 September 1968.

— The Shelf-Life Item Management Manual, DoD 4140.27-M of August 1976.

Subsequent to the review of various documents, headquarters level briefings were provided by each Military Service, DLA, and GSA. The objectives of these briefings were to obtain data regarding the organizational responsibility for shelf-life item management, the policies and basic procedures for management of shelf-life items,

and any program management data available. For DLA headquarters the objectives had dual purposes; that is, to ascertain DLA's role as a shelf-life item management agency and as a DoD Shelf-Life Item Management Program Administrator.

The document review and the headquarters level briefings were followed by relatively brief visits to two PICAs, two storage activities, and two Property Disposal Offices (PDOs). The objectives of these visits were to observe, on-site, the application of shelf-life item management policies and procedures for shelf-life items and to ascertain means for accumulating shelf-life item management data.

The document review indicates that shelf-life item management data is not generally available. The headquarters level briefings confirmed the absence of routinely accumulated management data for shelf-life items either by Component or, in total, for the DoD. In those cases where management data was accumulated it was not used for Component or DoD-wide shelf-life item management evaluation. At PICA level shelf-life item management reports vary widely, from a rather comprehensive quarterly report produced by Defense Supply Centers to no routinely produced report at certain Military Service ICPs.

Managers at all levels pointed out, and could confirm, that shelf-life items comprised a very small portion of their workload. While quantifiable data was not always available, briefings — especially at headquarters level — specified most of the key factors illustrated in paragraph D, "Program Perspective," of this Chapter.

Personnel, including managers, at all levels also pointed out that establishment of a comprehensive shelf-life item-oriented reporting system which would provide item characteristic, inventory management, and disposal rationale data in precise terms would involve data accumulation from virtually all PDOs, storage sites, and ICPs. Further, managers and technicians maintained that the magnitude of the shelf-life item management program did not justify such a comprehensive shelf-life item reporting system. Document research, headquarters briefings, and field research confirmed these assertions.

Concurrent with the observation that a bottom-up management information system for shelf-life items would be inappropriate, it became apparent that the Defense Integrated Data System (DIDS) and the Defense Property Disposal Service (DPDS), Integrated Disposal Management System (IDMS) could provide more data for a shelf-life management evaluation than is currently being provided. Further,

it was observed that DIDS shelf-life item data and IDMS disposal history data could, possibly, be coupled with Component, PICA, and PDO information to form a Shelf-Life Item Management Evaluation System.

Hence, subsequent to limited on-site field research, the review and analysis concentrated on:

— The accumulation of shelf-life item data from DIDS and the DPDS disposal data reporting system, primarily the disposal history file.

— The development of currently and potentially useful data arrays using DIDS and IDMS information.

— Means for relating DIDS and IDMS shelf-life item data to an individual Component, PICA, Storage Site, or PDO.

— Use of the DIDS and IDMS data, and their links to Components, PICAs, Storage Sites, and PDOs as a means for evaluation of the DoD Shelf-Life Item Management Program.

No single commodity area was subjected to an in-depth item management review and analysis. Most of the data displayed in Chapters II and III of this Report are based on DIDS and IDMS data. The overall results of the approach are displayed in Chapter III which describes how such data can be applied to the evaluation of Shelf-Life Item Management.

F. DATA

1. Basic Shelf-Life Item Data. The basic item data used to display the number of shelf-life items and associated item characteristics is from the DLSC-DIDS Files. These files were used to identify each item having a shelf-life code assigned. For each shelf-life item, the following data elements were identified and recorded:

- NSN
- PICA
- Unit Price
- Demilitarization Code
- Shelf-Life Code
- Consumable or Nonconsumable
- Stocked or Nonstocked

These data were used to produce the following reports:

- Shelf-Life Coded Consumable and Nonconsumable Items
- Consumable Items with Extendable and Nonextendable Shelf-Life

- Stocked and Nonstocked Shelf-Life Consumables
- Stocked and Nonstocked Shelf-Life Nonconsumables
- Distribution by Shelf-Life Code of Consumable Items
- Distribution by Shelf-Life Code of Nonconsumable Items
- Distribution by Shelf-Life Code of Stocked Consumable Items
- Distribution by Shelf-Life Code of Nonstocked Consumable Items
- Distribution by FSC of Shelf-Life Coded Consumables
- Distribution by FSC of Shelf-Life Coded Nonconsumables
- Distribution by Unit Price Group of Shelf-Life Coded Nonconsumable Items

Where these data are used in the text of this Report, the source is recorded as: "DIDS Files," and the data is as of May 1978.

2. Shelf-Life Item Disposal Data

The data used to display disposal volume for shelf-life items is from the DPDS-IDMS Disposal History File. The information was obtained by matching the shelf-life coded NSNs (from the DIDS File) against the items in the Disposal History File for Calendar Year (CY) 1977. For each CY 1977 transaction matched, the following data elements were identified and recorded:

- NSN
- Shelf-Life Code
- PICA
- Unit Price 1/ 2/
- Quantity
- PDO
- Turn-in Document Number
- Condition 1/ 3/
- Acquisition Advice Code
- Special Handling Code 1/
- Date of Transaction

1/ These data elements were not identifiable for all transactions.
2/ Two unit prices were recorded; the DIDS unit price and the IDMS unit price.
3/ The GSA condition code assigned by the PDO upon receipt of the materiel; the code does not indicate whether or not shelf-life has expired.

These data were used to produce the following reports and listings:

- Disposal of Shelf-Life Coded Consumables and Nonconsumables by FSC
- Disposal of Shelf-Life Coded Consumables by FSC
- Disposal of Shelf-Life Coded Consumables and Nonconsumables by PICA
- Disposal of Shelf-Life Coded Consumables by PICA
- Disposal of Shelf-Life Coded Consumables and Nonconsumables by Shelf-Life Code
- Disposal of Shelf-Life Coded Consumables by Shelf-Life Code
- Listing of Shelf-Life Item Disposals directed by PICAs
- Listing of Shelf-Life Consumable Item Disposals directed by PICAs

Where these disposal data are used in the text of this Report, the source is recorded as: "IDMS Disposal History File" and the data is for CY 1977.

3. Miscellaneous Data

In addition to the two primary data sources, the DIDS Files and the IDMS Disposal History File, DoD Components and GSA provided information during the headquarters briefings; PICAs, storage sites, and PDOs provided information during the on-site visits; and various activities (primarily, headquarters and PICAs) provided data in response to telephone queries.

To the extent these sources are used throughout the Report, the source and the associated time period or "as of date" are referenced.

G. REPORT FORMAT

More detailed findings, discussions, analyses, and observations plus conclusions and recommendations are presented in succeeding Chapters.

Chapter II presents brief overviews of the DoD-wide and Components Shelf-Life Item Management Programs. These overviews provide basic information regarding organizational responsibility, policies, and processes. Each provides a perspective of the shelf-life items managed in relationship to the overall item management responsibilities.

Chapter III presents a series of discussions and analyses associated with the development, establishment, and use of a Shelf-Life Item Management Evaluation System. (The Chapter is not designed for Item Managers nor as a guide for the management of individual shelf-life items.) The Chapter is designed for and can be used by an Administrator of the DoD Shelf-Life Management Program. The Chapter:

— Presents a basic set of management data and reports which (1) are of value to policy and performance evaluation and (2) can be produced readily and economically.

— Prescribes the application of these data and reports to shelf-life item management evaluation processes.

— Proposes areas in which the data and reports should be improved and/or expanded.

— Proposes analyses beyond those displayed which should be conducted by a Program Administrator.

Chapter IV summarizes the Report and sets forth recommendations for administration of the DoD Shelf-Life Item Management Program.

CHAPTER II

PROGRAM OVERVIEW

A. INTRODUCTION

Deteriorative items of supply, including items for which limited shelf-life is indicated, have been procured and used by the Defense Logistics structure throughout history. A formal program for the management of shelf-life items was recognized in 1966 with the publication and distribution of DoD Instruction 4140.27, Identification, Control, and Utilization of Shelf-Life Items. This Instruction, which prescribes the basic policies and responsibilities for shelf-life item management within the Department of Defense (DoD), has been reissued, with changes, in 1968 and 1974. In 1976, the Instruction was supplemented through publication of the Shelf-Life Item Management Manual, DoD 4140.27-M.

"Shelf-life coded" items of supply used by the DoD are managed by each Military Service, the Defense Logistics Agency (DLA) and the General Services Administration (GSA). Responsibilities for shelf-life item management program oversight and/or shelf-life item management extend from the Office of the Secretary of Defense (OSD) to each DoD Component and GSA.

The purpose of this Chapter is to provide a brief overview of the DoD Shelf-Life Item Management Program in terms of organizational responsibility, basic policies and procedures prescribed by implementing directives and instructions, and the range of items managed by the DoD Components and GSA. For the Marine Corps and GSA, the program perspective is limited to a few pertinent facts regarding the shelf-life coded items managed. For DLA, two roles are delineated; one as the designated DoD Shelf-Life Item Management Program Administrator and another as a manager of shelf-life coded items.

B. DoD-WIDE OVERVIEW

1. Organizational Responsibility

Within the Office of the Secretary of Defense the Director for Supply Management Policy, Deputy Assistant Secretary (Supply, Maintenance and Services), Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) is responsible for and has a primary interest in the Shelf-Life Item Management Program. This office has responsibility for the development, coordination, and distribution of DoD Instruction 4140.27 which delineates the objectives, policies, and responsibilities of the Program.

Three DoD-wide Shelf-Life Item Management Program responsibilities have been delegated to the Defense Logistics Agency. Paragraph V of DoD Instruction 4140.27 states that the Director, DLA, will (1) Administer the DoD Shelf-Life Item Management Program in accordance with the DLA Charter, (2) develop and maintain the DoD Shelf-Life Item Management Manual, and (3) prepare and/or evaluate reports on shelf-life management required to be submitted by the DoD Instruction.

2. Direction and Policy

Defense-wide program direction and policy is published in and distributed by DoD Instruction 4140.27 and DoD Manual 4140.27-M. Basic program goals prescribed in these documents are to:

*** Accomplish shelf-life item management in a manner which will balance the need to maintain responsive support with the risk of shelf-life expiration prior to issue of the materiel.

*** Promote compatibility within DoD for the intensive management policies and procedures applied to the management of shelf-life items.

Because shelf-life items require special management attention with attendant additional costs, the general policies associated with the program are aimed at limiting the range of items. These policies are:

-- "...the designation of shelf-life items will be held to a minimum." Only items with known or suspected critical deterioration characteristics will be included in the shelf-life program.

-- Normally, except for medical and certain "military essential" items, items of supply expected to remain suitable for use when stored more than five years will not be given a shelf-life designation.

Beyond these general policies, more specific policies are prescribed for the materiel management, procurement, and utilization areas. Among the materiel management policies are these:

— Within the DoD, each item of supply will be assigned only one shelf-life code.

— Normally items with less than six months shelf-life will not be stocked at the wholesale level.

— Items with more than six months and less than 30 months shelf-life shall normally have a stockage objective of half the rotatable quantity, or equal to one year's forecasted demand, whichever is less.

— Items with more than 30 months shelf-life shall normally have a stockage objective not to exceed the shelf-life of the item.

— Procurement cycle requirement quantities for items with less than 30 months shelf-life will normally be equal to the six months forecasted demand quantity or less.

— Periodic reviews of shelf-life items will be conducted at all levels of supply; reviews by Inventory Control Points (ICPs) will constitute a re-evaluation of an item being designated as a shelf-life item to include efforts to identify nonshelf-life replacements; retail levels will conduct stock reviews to insure that excess shelf-life items are utilized prior to expired useful life.

Among the procurement policies are these:

— Acquisition documents will include: (a) dating and marking requirements; (b) environmental protection required, to include type of preservation, packaging and packing; and (c) a minimum remaining shelf-life for shelf-life items at time of delivery by contractor.

— For commercially available items with a shelf-life of six months or less, indefinite delivery type contracts are generally a preferred means of supply (vice DoD storage).

Regarding utilization, specific policies prescribed are:

— Type II items held to satisfy requirements will be inspected and/or tested for extension of shelf-life and/or restoration to ready-for-issue condition.

— Potential excess quantities of shelf-life items with useful life of six months or less will be subject to accelerated issue or disposal, so that reutilization/sale can occur while some useful life remains.

3. DoD Used Shelf-Life Coded Item Range

DoD used shelf-life coded items are managed by each of five DoD Components and GSA. The size of the DoD Shelf-Life Item Management Program in terms of items is displayed in Table II-1.

Table II-1

DoD AND GSA MANAGED SHELF-LIFE ITEMS
(May 1978)

Managing Service/Agency	Shelf-Life Coded Items		
	Consumable	Non-consumable	Total
Army	1,360	269	1,629
Navy	8,870	6,107	14,977
Air Force	806	1,256	2,062
Marine Corps	115	12	127
DLA	19,680	0	19,680
GSA	5,357	0	5,357
Total	36,188	7,644	43,832

Source: DIDS Files

Table II-1 shows that DoD and GSA have identified and coded 43,832 items for shelf-life item management. Of the 43,832 items, 36,188 (82.5%) are consumable items. The 43,832 items coded as shelf-life items are only 1.1% of the 3,862,198 items for which the DoD Components and GSA have item management responsibility.

4. Management Reports. The recommendations of 1969 proposing the establishment and maintenance of a Shelf-Life Item Management reporting system have not been implemented. As a result, neither the sponsor, in OSD, nor the administrator, in DLA, receive management reports for evaluation of the Shelf-Life Item Management Program on a DoD-wide basis.

C. ARMY

1. Organizational Responsibility

Under the general guidance of the Deputy Chief of Staff for Logistics, the Army Materiel Development and Readiness Command (DARCOM), and the Surgeon General are responsible for direction and execution of the Shelf-Life Item Management Program within the Department of the Army. The Materiel Readiness Commands (also referred to as Commodity Commands) are responsible for the materiel management of shelf-life items for which the Army has wholesale management responsibility. The Army Medical Materiel Agency is responsible for providing policy guidance to the retail management level for medical shelf-life items used by the Army.

Since the identification of shelt-life is a technical determination and the control of shelf-life item storage and disposition involves technical review and evaluation, monitorship of these processes is vested in the DARCOM Quality Control Field Activity located near Lexington, Kentucky.

2. Direction and Policy

DoD Instruction 4140.27 and DoD Manual 4140.27-M contain the shelf-life item control policies applied in the Army. Army Regulation (AR) 700-89, Identification, Control, and Utilization of Shelf-Life Items, is the vehicle through which the shelf-life policies and procedures are distributed. The definitions, codes, and basic policies set forth in AR 700-89 are identical to those in the DoD Instruction and DoD Manual. For certain policy statements there is minor elaboration; for procedures there is considerable elaboration.

Several additional DoD Directives and Instructions and Army Regulations influence shelf-life items control. Among these are:

— DoD Directive 4155.1, Quality Assurance

— DoD Instruction 4151.7, Uniform Technical Documentation for Use in Provisioning End Items of Materiel

— AR 700-1, Cataloging and Supply Management Data

— AR 750-1, Army Materiel Maintenance Concepts and Policies

— AR 740-1, Storage and Supply Activity Operations

— AR 740-3, Care of Supplies in Storage (COSIS)

— AR 702-7, Depot Quality Assurance System

— DARCOM 702-23, Storage Serviceability Standards

Each of these documents sets forth one or more policies or processes regarding the identification, procurement, marking, receipt, inspection, storage, test, control, issue, utilization, or disposition of shelf-life materiel.

Shelf-life items are identified by code in the Army Master Data File (AMDF) and the Commodity Command Standard System (CCSS) file. Within the CCSS, the shelf-life code flags the item resulting in quantitative and qualitative controls and/or off-line processing for shelf-life items.

3. Army Managed Shelf-Life Coded Item Range

The size of the Army segment of the DoD Shelf-Life Item Management Program in terms of items is displayed in Table II-2.

Table II-2

ARMY MANAGED SHELF-LIFE ITEMS
(May 1978)

Managing PICA	Shelf-Life Coded Items		
	Consumable	Non-consumable	Total
Armament Materiel Readiness Command	283	78	361
Communications Security Logistics Actvy	1	0	1
Comm.&Electronics Readiness Command	286	22	308
Missile Materiel Readiness Command	460	131	591
Tank-Automotive Materiel Readiness Cmd	227	0	227
Troop Support & Aviation Readiness Cmd	103	38	141
Total	1,360	269	1,629 1/

Source: DIDS Files

1/ Includes only items for which the Army has wholesale item management responsibility. As of February 1978 the Army Medical Materiel Agency had "retail management interest" in 3,450 items considered shelf-life items.

Table II-2 shows that five major Army Primary Inventory Control Activities (PICAs) have identified and coded 1,628 items for shelf-life item management. Of the 1,628 items, 1,360 (83.5%) are consumable items. The 1,629 items (including the one managed by the Communications Security Logistics Activity) coded as shelf-life items are only 0.52% of the 310,447 items for which the Army has item management responsibility.

4. Management Reports

Shelf-life item data is not routinely accumulated for program management purposes. The results of shelf-life item inspections are recorded and reported as part of the quality assurance program and/or depot inspection reporting systems.

To the extent shelf-life item data (such as that shown in Table II-2 or similar data by type of shelf-life code) is required or desired, it is obtained from the Army Master Data File maintained by the Army Catalog Data Agency.

D. NAVY

1. Organizational Responsibility

Under the general guidance of the Naval Material Command, the Naval Supply Systems Command (NAVSUP) is responsible for direction and execution of shelf-life item management policies and procedures within the Department of the Navy.

Primary Inventory Control Activities under the command of NAVSUP or within the Navy "hardware commands" are responsible for the identification, control, and utilization of shelf-life items.

2. Direction and Policy

As of the date of this review (January to May 1978) the Navy directive prescribing shelf-life item management policies was being revised and, as an interim measure, copies of DoD Instruction 4140.27 and DoD Manual 4140.27-M had been distributed to Navy activities responsible for the identification, management, storage, inspection, issue, and disposition of shelf-life items.

Since the General Accounting Office (GAO) has been especially critical of "shelf-life item control and disposal" at Navy stock points, the Naval Audit Service scheduled a Service-wide audit of shelf-life items management at these activities during Fiscal Year 1978. Concurrent with the audit, the following policy and procedural changes were initiated:

— Navy stocking activities were authorized to requisition directly from GSA;

— ADP requirements computation programs were modified to establish new, lower, stockage levels; and

— Ordering frequencies were increased.

The objectives of these changes were to:

— Preclude losses caused when multiple levels of stock, for shelf-life items, generated inventory levels exceeding the rotatable quantity.

— Reduce the number of items requiring inspection, test, and restoration because the items have reached or are approaching the shelf-life expiration date.

3. Navy Managed Shelf-Life Coded Item Range

The size of the Navy segment of the DoD Shelf-Life Item Management Program in terms of items is displayed in Table II-3.

Table II-3

NAVY MANAGED SHELF-LIFE ITEMS
(May 1978)

Managing PICA	Shelf-Life Coded Items		
	Consumable	Non-consumable	Total
Air Systems Command	0	9	9
Aviation Supply Office	3,506	5,317	8,823
Electronics Systems Command	0	63	63
Mine Engineering Facility	0	10	10
Ship Engineering Center	0	196	196
Ships Parts Control Center	5,364	439	5,803
Strategic Systems Project Office	0	3	3
Training and Equipment Center	0	70	70
Total	8,870	6,107	14,977 1/

Source: DIDS Files

1/ Includes only items for which the Navy has wholesale item management responsibility.

Table II-3 shows that two major Navy PICAs have identified and coded 14,626 items for shelf-life item management. In addition, 351 items managed by six other Navy PICAs have been assigned shelf-life codes.

Of the 14,977 items with shelf-life codes, 59.2% are consumable items. However, 60.3% of the Aviation Supply Office (ASO) items having shelf-life codes are nonconsumable. Further, the shelf-life coded items managed by Navy PICAs other than ASO and the Ships Parts Control Center (SPCC) are all nonconsumable.

The 14,977 items coded as shelf-life items are only 2.2% of the 677,976 items for which the Navy has item management responsibility.

4. Management Reports. Shelf-life item management data is not routinely accumulated for program management purposes. Quality assurance, inspection, test, restoration, and disposition reports submitted for other programs do include data for shelf-life items. Generally, however, data for shelf-life items is not separately identified for management purposes.

E. AIR FORCE

1. Organizational Responsibility

Under the general guidance of the Deputy Chief of Staff for Systems and Logistics, Headquarters, USAF, the Air Force Logistics Command (AFLC) is responsible for direction and execution of the Shelf-Life Item Management Program within the Department of the Air Force. AFLC publishes and distributes shelf-life item management policies and procedures for the Air Logistics Centers and Air Force Security Service.

The respective Air Logistics Centers and the Air Force Security Service (as PICAs) are responsible for the identification, management, receipt, inspection, storage, test, issue, and disposition of shelf-life items. Base level requisition, storage, and issue procedures for shelf-life materiel are the responsibility of the Air Force Data System Design Center in coordination with Headquarters, AFLC.

2. Direction and Policy

Within the Air Force, DoD Instruction 4140.27 and DoD Manual 4140.27-M policies and procedures are incorporated into Air Force Manual (AFM) 67-1. Basic shelf-life materiel policies are contained in AFM 67-1, Volume I, Part One, Section Q, Shelf-Life Items. AFM 67-1, Volume II, Part Two, sets forth basic shelf-life materiel procedures. Air Force Technical Order (TO) 00-20K-1, "Inspection and Control of USAF Shelf-Life Equipment," provides procedures for specific items or commodities. The Technical Order has a section for each Air Logistics Center. AFLC Regulation 66-68, "Equipment Maintenance," prescribes responsibilities and practices for provisioning of deteriorative/shelf-life items.

Based on the premise that shelf-life item management requires extra resources and therefore, shelf-life items should be kept at a minimum, the Air Force has two "unique" policies; these are:

— Shelf-life codes are not applied to items with a shelf-life exceeding five years.

— Based on Air Force experience, selected classes of non-Air Force managed items are exempt from shelf-life controls within the Air Force.

3. Air Force Managed Shelf-Life Coded Item Range

The size of the Air Force segment of the DoD Shelf-Life Item Management Program, in terms of items, is displayed in Table II-4.

Table II-4

AIR FORCE MANAGED SHELF-LIFE ITEMS
(May 1978)

Managing PICA	Shelf-Life Coded Items		
	Consumable	Non-consumable	Total
Ogden Air Logistics Center	287	258	545
Oklahoma City Air Logistics Center	45	214	259
Sacramento Air Logistics Center	212	287	499
San Antonio Air Logistics Center	147	60	207
Security Service	0	3	3
Warner Robins Air Logistics Center	115	434	549
Total	806	1,256	2,062 1/

Source: DIDS Files

1/ Includes only items for which the Air Force has wholesale item management responsibility.

Table II-4 shows that five major Air Force PICAs have identified and coded 2,059 items for shelf-life management. Of the 2,059 items only 806 (39.1%) are consumable items. The 2,062 items (including the three Security Service items) coded as shelf-life items are only 0.2% of the 816,520 items for which the Air Force has item management responsibility.

4. Management Reports. In 1974, the last year for which data was centrally accumulated and in previous years, the total number of shelf-life items reported as transferred to disposal was small and it was assumed that the dollar value of shelf-life materiel disposed of due to shelf-life expiration was also small. As a result, the reporting of shelf-life data to a central Air Force location was considered unnecessary and discontinued.

F. MARINE CORPS

Under the guidance of the Deputy Chief of Staff for Installations and Logistics, the PICA located within the Marine Corps Logistics Support Base Atlantic manages a small range of shelf-life coded items.

Within the Marine Corps, the policies and procedures prescribed in DoD Instruction 4140.27 and DoD Manual 4140.27-M are published and distributed through Marine Corps Orders P4400.71, 4400.72, 4400.74, and 4400.75.

The Marine Corps has identified and coded 127 items for shelf-life item management. Of the 127 items, 115 (90.6%) are consumable items and 12 (9.4%) are nonconsumable. The 127 items coded as shelf-life items are only 0.3% of the 38,442 items for which the Marine Corps has item management responsibility.

G. DEFENSE LOGISTICS AGENCY

1. Organizational Responsibility

In addition to having a DoD-wide responsibility for administration of the Shelf-Life Item Management Program, the Director, DLA, is responsible for implementation of shelf-life item management policy and procedures at Defense Supply Centers, depots, and disposal activities. Within Headquarters DLA, the responsibility for shelf-life item management policies and procedures are lodged primarily in the Directorates for Supply Operations and Technical Services.

The Defense Supply Centers (DSCs), Defense Depots, and the Defense Property Disposal Office (DPDO) are responsible for the identification, management, receipt, inspection, storage, test, issue, and disposition of shelf-life items.

2. Direction and Policy. The policies and procedures set forth in DoD Instruction 4140.27 and DoD Manual 4140.27-M are prescribed for DLA-wide use in DLA Manual 4140.2, Volumes I, II, and III. Volume I sets forth the policies and procedures for the DLA Distribution System. Volume II contains the standardized procedures for ICP/DSC materiel management, including the automated processes for signaling the shelf-life characteristic of an item for procurement quantity restriction and off-line processing. Volume III prescribes the specialized processes for shelf-life items at depots.

3. DLA Managed Shelf-Life Coded Item Range

The size of the DLA segment of the DoD Shelf-Life Item Management Program, in terms of items, is displayed in Table II-5.

Table II-5

DEFENSE LOGISTICS AGENCY MANAGED SHELF-LIFE ITEMS
(May 1978)

Managing PICA	Shelf-Life Coded Items
Defense Construction Supply Center	516
Defense Electronics Supply Center	5,900
Defense General Supply Center	4,864
Defense Industrial Supply Center	4,426
Defense Personnel Support Center	3,974
-- Clothing and Textiles.....	(541) 1/
-- Subsistence.....	(1,722) 1/
-- Medical.....	(1,711) 1/
Total	19,680

Source: DIDS Files

1/ Components of the Defense Personnel Support Center total of 3,974 shelf-life items.

Table II-5 shows that five major Defense Logistics Agency PICAs have identified and coded 19,680 items for shelf-life item management. All are consumable items. The 19,680 items coded as shelf-life items are only 1.0% of the 1,940,195 items for which the DLA has item management responsibility.

4. Management Reports

DLA Manual 4140.2, Volume II, prescribes a Defense Supply Center quarterly management report for shelf-life items. It is referred to as the F-281 Shelf-Life Report and its stated purpose is "to provide the DSCs with selected data for identification, control, and utilization of Shelf-Life items." The Report is prepared in three parts and displays the following:

Part 1, an Item/Dollar Value Summary shows; (1) by FSC, the number of Type I, Type II, and total shelf-life items; (2) by FSC, the dollar value of ready-for-issue, not-ready-for-issue, suspended for test, and total shelf-life materiel; and (3) grand totals for the DSC.

Part 2, a Type I and Type II Item/Dollar Value Analysis, shows separately for Type I and Type II shelf-life items: (1) by shelf-life code, the dollar value of ready-for-issue, not-ready-for-issue, suspended for test, and total shelf-life materiel, and (c) grand totals for the DSC.

Part 3, a Condition Code/Dollar Value Analysis shows by materiel condition code: (1) the dollar value of Type I, Type II, and total shelf-life items and (2) grand totals for the DSC.

These ADP Reports are produced quarterly by the DSCs. At the single DSC visited, the reports were not being used extensively for management review purposes. The most extensive use was made of Part 1, for which it was pointed out that problems or potential problems — in terms of items or dollar value of inventory — could be pinpointed to specific Federal Supply Classes. Telephone inquiries to other DSCs indicated a similar pattern of usage for the F-281 Report.

The DSC F-281 Shelf-Life Reports are not routinely received and reviewed for DLA-wide management purposes at Headquarters, DLA. However, copies of the Reports are reviewed for special purposes, such as this Study or to answer OSD queries.

H. GENERAL SERVICES ADMINISTRATION

The Federal Supply Service of the General Services Administration has a Federal Government-wide responsibility for the management of selected materiel, including shelf-life coded items. The Federal Property Management Regulations (FPMRs) and the GSA catalog contain policies and procedures which are similar to those prescribed by DoD Instruction 4140.27 and DoD Manual 4140.27-M. GSA policy strongly endorses the use of indefinite delivery type contracts (vice storage) for commercially available, deteriorative items. GSA practices for shelf-life coded items reflect this policy, as only 15 shelf-life coded items are managed as stores/stocked items.

GSA has identified and coded 5,357 items for shelf-life item management. All are consumable items. The 5,357 items coded as shelf-life items are 6.8% of the 78,618 items for which the GSA has item management responsibility.

I. SUMMARY EVALUATIONS

1. Organizational Responsibilities, Policies, and Procedures

From the Office of the Secretary of Defense through the headquarters levels of each DoD Component having item management responsibilities and the General Services Administration, there are organizational

units which have a role in the identification, control, and use of shelf-life items. They are: the Office of Supply Management Policy at the OSD level; the Deputy Chief of Staff for Logistics, the Army Materiel Development and Readiness Command, and the Surgeon General, plus their subordinate agents in the Army; the Naval Materiel Command and the Naval Supply Systems Command in the Navy; the Deputy Chief of Staff for Systems and Logistics and the Air Force Logistics Command in the Air Force; the Deputy Chief of Staff for Installations and Logistics and the Marine Corps Logistics Support Base Atlantic in the Marine Corps; the Directorates of Supply Operations and Technical Services in Headquarters, DLA; and the Federal Supply Service of GSA.

Each DoD Component and GSA recognizes a category of deteriorative items, identifies these items through the application of shelf-life codes, and applies special item control techniques to these shelf-life coded items.

Each DoD Component has published and distributed policies and procedures for the identification, control, and use of shelf-life items. The basic objectives, policies, and procedures of the DoD Shelf-Life Item Management Program are contained in DoD Instruction 4140.27, "Identification, Control, and Utilization of Shelf-Life Items," and the Shelf-Life Item Management Manual, DoD 4140.27-M. In general, the objectives, policies, and procedures prescribed in these two documents are prescribed in the separate Component directives and instructions.

2. Program Size

The following listing shows the range of shelf-life coded items in relationship to the total range of items managed within various segments of the DoD interest, item range:

Program Segment	Total Items	Shelf-Life Coded	% of Total
Army Managed	310,447	1,629	0.5%
Navy Managed	677,976	14,977	2.2
Air Force Managed	816,520	2,062	0.3
Marine Corps Managed	38,442	127	0.3
DLA Managed	1,940,195	19,680	1.0
GSA Managed	78,618	5,357	6.8
DoD Interest	3,862,198	43,832	1.1

In general, the range of items coded for shelf-life identification purposes is a very small number of items and a small percentage when related to the total number of items managed. The total range of shelf-life coded items is only 1.1% of the total DoD item interest range.

3. Consumable and Nonconsumable Items

Of the 43,832 shelf-life coded items, 7,644 items managed by Military Service PICAs (primarily Navy and Air Force) are also identified as nonconsumable items; that is, the items are "reparables," "investment items," or "end items."

A unit price review of the 7,644 shelf-life coded nonconsumables shows that over 45% of the items have unit prices of $1,000 or more and over 95% have unit prices of $100 or more.

Headquarters briefings, ICP visits, and telephone queries to program managers and ICPs indicated that nonconsumable items having shelf-life codes generally receive the code because one or more of the consumable items within the nonconsumable items is shelf-life coded. Hence, the nonconsumable item is shelf-life coded as a signal that it contains a consumable shelf-life item.

Data for several other DoD studies (e.g., the Critical Item Management Study, 1977; the ICP Management Information System, 1977; and the Management of Aeronautical Materiel Study, 1964) show that nonconsumable items receive extra, special management attention because of their repairability, investment value, and item value, or because of their associated special program application. The fact that these nonconsumable items are also shelf-life items, as such or because they contain one or more shelf-life consumables, is merely identification of another item characteristics; and this characteristic along with others is considered when the item is managed — not as a shelf-life item, but as a "reparable," "investment item," or "end item."

Of the 7,644 shelf-life coded nonconsumable items, 5,317 (69.6%) are managed by a single PICA, the Naval Aviation Supply Office. The remaining 30% of these items are managed by 18 PICAs (4 Army; 7 Navy; 6 Air Force; and 1 Marine Corps), each of which manages from 3 to 434 shelf-life coded nonconsumables.

Normally, the evaluation of item management for nonconsumable items will, and should, occur within the special programs designed for reparables, investment items, and end items. Since these

items can be separately identified, they can be excluded from a shelf-life item management evaluation system (without necessarily excluding them from the shelf-life item identification process). Exclusion of these 7,644 nonconsumables limits the Shelf-Life Item Management Program Evaluation System to the 36,188 consumable shelf-life items which are managed as "shelf-life items" on a day-to-day basis. These 36,188 items represent 0.9% of the DoD interest item range.

4. Management Activities

Of the 36,188 consumable items which are managed routinely as shelf-life items, 19,680 (54.4%) are managed by DLA; 8,870 (24.5%) are managed by the Navy; and 5,357 (14.8%) are managed by GSA. The Army, Air Force, and Marine Corps manage only 2,281 (6.3%) of the consumable shelf-life items.

Within the DoD, four DLA centers and two Navy PICAs manage 28,034 shelf-life consumables, 77.5% of the 36,188 items; the PICAs are:

PICA	No. of Items	% of Total
Defense Electronics Supply Center	5,900	16.3
Naval Ships Parts Control Center	5,364	14.8
Defense General Supply Center	4,864	13.4
Defense Industrial Supply Center	4,426	12.2
Defense Personnel Support Center	3,974	11.0
Naval Aviation Supply Office	3,506	9.7

These data demonstrate (a) that DLA managed items comprise over half of the shelf-life item range and (b) that item management data for over 90% of the items managed as shelf-life items can be obtained from seven PICAs: four DSCs, two Navy ICPs, and the Federal Supply Service of GSA.

5. Management Reports and Program Evaluation

The 1969 Evaluation of the Shelf-Life Item Management Program proposed a management reporting system. The proposal has not been adopted and neither the program sponsor in OSD nor the administrator in DLA receive management reports for evaluation of the Program on a DoD-wide basis.

Similarly, the Service and Agency organizational elements responsible for the publication and distribution of shelf-life item identification and control policies and procedures do not have

management data systems oriented toward evaluation of shelf-life item management. To the extent shelf-life item data is available, required, or desired at a central location, it is obtained through other data maintenance systems, such as Component catalog data files, storage workload and effectiveness reports, or quality assurance reports. In most instances data oriented toward shelf-life item management evaluation is accumulated only if a problem or potential problem arises or in response to a specific inquiry.

Within DLA Headquarters it is possible to assemble a DLA-wide report for limited shelf-life management evaluation, quickly, by assembling data from the respective DSC quarterly management reports for shelf-life items. Again, however, this is not done routinely, but only on occasion for a special purpose.

While each management organization recognizes the existence of a shelf-life item management program, each rationalizes the absence of a management data reporting and evaluation system on the basis of small program size. Data accumulated by headquarters level personnel and presented for the purposes of this Study and item data illustrated in previous paragraphs of this Report support the general contention that the Shelf-Life Item Management Program is relatively small and indicate that a management information system for evaluation of the program should be minimal and relatively inexpensive.

Finally, as shown by the recorded "sources," most of the shelf-life item data used throughout this Report is presently maintained within and was obtained from the Defense Integrated Data System (DIDS) Files and the Integrated Disposal Management System (IDMS) Disposal History File. This data is available routinely and at a minimal cost. It shows that item management data for over 90% of the items managed as shelf-life items can be obtained by contacting seven PICAs. This combination of factors is the embryo of a readily available, low-cost shelf-life item management information system. Throughout the remainder of this Report, the DIDS and IDMS data and the links it provides to PICAs, storage sites, and disposal activities will be used to illustrate how this low cost data system can be used to evaluate the DoD Shelf-Life Item Management Program.

J. KEY OBSERVATIONS AND CONCLUSIONS

1. Each DoD Component having item management responsibility and GSA recognize a need to (a) identify shelf-life items and (b) apply special guidelines, policies, and procedures to the management of shelf-life items.

2. In general, shelf-life item management objectives and policies published and distributed by the DoD Components and GSA are identical to the objectives and policies set forth in DoD Instruction 4140.27 and DoD Manual 4140.27-M.

3. Generally, only consumable items are managed as shelf-life items; nonconsumables are managed within other special programs as reparables, investment items, or end items.

4. A shelf-life item management evaluation system should be oriented toward shelf-life consumables.

5. The Shelf-Life Item Management Program is relatively small in terms of items managed — less than 1% of the DoD interest items; over 90% of the items managed as shelf-life items are the responsibility of seven PICAs.

6. A relatively small, simple, and low-cost data system can be developed and should suffice for evaluation of the DoD Shelf-Life Item Management Program.

CHAPTER III

PROGRAM EVALUATION

A. INTRODUCTION

1. Objectives of Evaluation

A Department of Defense (DoD) Shelf-Life Item Management Program exists. It includes over 36 thousand consumable items of supply which are given extra-special management attention because an engineer or technician has indicated that the item is subject to deterioration and has a potentially limited shelf-life. Major goals and policies of the Program are to:

** Provide responsive support to DoD users of shelf-life items, while simultaneously minimizing materiel losses due to shelf-life expiration;

** Promote the consistent, compatible application of shelf-life item management policies and procedures throughout the DoD; and

** Minimize the Program operating costs by stringently limiting the range of items receiving such extra-special management attention.

Each of these broad general goals and policies is supplemented by one or more specific policies and procedures related to item identification, control, and utilization.

The objective of a program evaluation system is to ascertain the degree to which the major program goals and policies are attained and, in certain instances, the extent to which specific program implementation policies and procedures are effective.

2. Data Required for Program Evaluation

To evaluate the degree to which basic and specific shelf-life item management program goals, policies, and procedures are being attained, the following types of data are required.

** Item Identification and Catalog Management Data as a means for determining:

-- The number of items in the program at a given point in time (a baseline); and/or

-- The program's stability or direction (trends); and/or

-- The characteristics of shelf-life items; and/or

-- The commodities or Federal Supply Classes (FSCs) requiring special attention and action; and/or

-- The Primary Inventory Control Activities (PICAs) or Secondary Inventory Control Activities (SICAs) responsible for the management of shelf-life items.

** Disposal Data as a basis for determining:

-- The volume of shelf-life items entering the disposal program in terms of number of items, number of transactions, and dollar value of materiel; and/or

-- The shelf-life items, commodities, or FSCs, requiring specific attention or action; and/or

-- Whether disposal volume for shelf-life items is proportionately less than, equal to, or greater than disposal volumes for other than shelf-life items; and/or

-- The organizational level, Inventory Control Point (ICP) or below ICP, generating the disposal actions; and/or

-- The specific ICP, retail activity, or consumer activity generating shelf-life item disposal actions.

** Materiel Management Data as a basis for determining:

-- The dollar value of shelf-life item inventory and sales/issues; and/or

-- The stock turn rate; and/or

-- The effectiveness rate, in terms of "fill" or "customer satisfaction"; and/or

-- Whether effectiveness factors for shelf-life items are lower than, equal to, or higher than the same factors for other than shelf-life items.

3. Data Sources

a. Item Identification and Catalog Management Data. Basic shelf-life item data used, in this Report, for the set of purposes outlined above were obtained from the DLSC-DIDS File. Chapter I, paragraph F. of the Report sets forth listings of the catalog management data elements and reports provided by the Defense Logistics Services Center (DLSC).

b. Disposal Data. Disposal data used, in this Report, for the set of purposes outlined above were obtained from a combination of the DPDS-IDMS Disposal History and DIDS Files. Chapter I, paragraph F. of this report sets forth listings of the disposal data elements and reports provided by the DPDS-IDMS and DLSC-DIDS.

c. Materiel Management Data. Materiel management data which can be used for the program evaluation purposes outlined above is available only at the PICAs managing shelf-life items. Data in the ICP, automatic data processing systems is item related. Hence, at these ICPs, shelf-life item data is or, with minimal programming, can be accumulated by FSC, or by Federal Supply Group (FSG), or for all shelf-life items, or in combinations of these. The item data available at ICPs also permits the accumulation of inventory, sales/issues, and supply effectiveness information by required/desired item grouping.

d. Cautions Regarding the Data

This is the first time these data (from the DLSC-DIDS Files, the DPDS-IDMS Disposal History File, and multiple PICA files) have been used, in combination, for shelf-life item management program evaluation purposes. Therefore, certain data inaccuracies and inadequacies have been identified. The degree of these varies for the three basic sources. The following are cautions regarding the data:

-- The DLSC-DIDS Data. The basic item data provided from the item identification (cataloging) program has been developed and accumulated within the cataloging program for years and is considered very accurate. The basic cataloging data expanded to include catalog management data, such as unit price or source of supply, is also well developed, but is considered less perfect than the basic item identification data. (For example, it is estimated that at least 0.7% of the shelf-life coded nonconsumables are erroneously categorized as "nonconsumable," or have one or more other catalog item management characteristics erroneously coded.) Overall, however, the DLSC-DIDS data are consistent, used with a high degree of confidence, and used to formulate conclusions.

-- The Disposal History Data. The DPDS-IDMS Disposal History File data have been used primarily for overall Disposal Program portrayal and evaluation; and the data elements used for these purposes are considered accurate. To evaluate shelf-life disposal, however, it is necessary to match data from DLSC-DIDS Files and the DPDS-IDMS Disposal History File. In certain cases, data elements, such as unit price or special handling codes, needed for evaluation purposes, are missing from the Disposal History File or are inaccurate. Further, these are programming complications associated with the determination of net disposal values. The disposal data derived from these processes are usable for shelf-life item program evaluation. However, the data are used with less confidence than the cataloging program data, and conclusions based on the data, if not supported by other data, are appropriately caveated.

-- The Materiel Management Data. Since this information comes directly from the ICP working files, it is considered extremely accurate. The major caution here is that the data must be collected separately from each ICP and special effort must be exerted to assure consistency of input from multiple ICPs; especially ICPs of different Components. Further, accumulation of data from multiple ICPs may require multiple programming effort at the ICPs. Finally, since such data has not been collected and used, centrally, for program evaluation, certain data (e.g., effectiveness indicators) are not available without additional special effort. Because of these factors and because the shelf-life item program is relatively small, it is considered advisable to accumulate materiel management data for shelf-life item management purposes from as few ICPs as possible and/or only on an exception basis.

As DLSC, DPDS, and ICP data are used repetitively for DoD Shelf-Life Item Management Program evaluation, it is expected that certain data inaccuracies will be identified and corrected and, in some areas, expanded data accumulation will be generated.

4. Use of the Data for Program Evaluation

The remainder of this Chapter describes the DoD Shelf-Life Item Management Program evaluation process. Each of the next three paragraphs will include:

** A description of the respective subject, including a brief statement of the program goal, policy, or procedure, being evaluated;

** An explanation of the evaluation process, including the data being used, its source(s), and its shortfalls;

** One or more significant observations and conclusions stemming from the evaluation; and, finally

** A statement of how a DoD Shelf-Life Item Program Administrator can use, improve, or expand the evaluation and the data used for the evaluation.

B. ITEM RANGE EVALUATION

1. Description. The purpose of this evaluation is to provide a continuing or periodic perspective of the Shelf-Life Item Management Program in terms of item range and trends. The Program goals and policies involved are:

-- "The designation of items as shelf-life items will be held to a minimum," because "shelf-life items require special management controls and attendant additional costs."

-- Only items with known or suspected critical deteriorative characteristics will be included in the Program.

-- Normally, except for medical or "military essential" items, items of supply expected to remain suitable for use stored more than five years will not be given a shelf-life designation.

2. The Evaluation

a. Number of Shelf-Life Coded Items. Tables I-1 and II-1 through II-5 contain data showing the number of items to which shelf-life codes have been assigned and the number of items to which special shelf-life item management is applied, as of May 1978. The DLSC-DIDS Files are the source of these data. In summary, these tables show that:

-- 43,832 items, 1.1% of the DoD-interest National Stock Numbered (NSN) items, have been assigned shelf-life codes.

-- 36,188 of the 43,832 shelf-life coded items (0.9% of the DoD-interest NSNs) are consumable items.

b. Item Managers. Tables II-1 through II-5 also show the item managers for shelf-life coded items. In summary, these tables show that:

-- Twenty-seven ICPs manage one or more shelf-life coded items and of these 20 ICPs manage one or more consumable shelf-life items.

-- Six DoD ICPs (two Navy and four DLA) and GSA manage about 90% of the shelf-life coded items and over 92% of the shelf-life coded consumables.

c. Commodities with Shelf-Life Items

Based on the assumption that commodities, because of varying deteriorative characteristics, would play a significant role in shelf-life item coding processes, the DLSC-DIDS data was sorted by Federal Supply Class. Over 300 FSCs contain one or more items with a shelf-life. Table III-1 shows the results for FSCs containing 500 or more shelf-life coded consumable items.

Table III-1

FEDERAL SUPPLY CLASSES CONTAINING
500 OR MORE SHELF-LIFE CODED CONSUMABLE ITEMS

FSC	Name	Items
1650	A/C Hydraulic, Vaccum and De-icing System Components	1,116
2915	Aircraft Engine Fuel System Component	584
4720	Flexible Hose and Tubing	763
5330	Packing and Gasket Materials	7,451
5910	Capacitors	5,871
6505	Drugs, Biologicals, and Official Reagents	1,314
6750	Photographic Supplies	2,249
7510	Office Supplies	660
8010	Paints, Dopes, Varnishes, and Related Products	2,190
8030	Preservative and Sealing Compounds	1,124
8040	Adhesives	903
9150	Oils and Grease: Cutting, Lubricating, & Hydraulic	609
9390	Miscellaneous Fabricated Nonmetallic Materials	606
Total		25,440

Source: DIDS Files

Table III-1 shows that 13 Federal Supply Classes contain 25,440 (70.3%) of the 36,188 shelf-life coded consumable items. The Table also illustrates that seven FSCs with over 1,000 shelf-life coded items account for 21,315 (58.9%) of the shelf-life coded consumable items. These data demonstrate a concentration of shelf-life item identification and management within a relatively narrow range of FSCs.

d. "X" Coded Items

Based on the existence of a policy statement that advocates restriction of over five-year shelf-life designations to medical or "military essential" items, it would be expected that shelf-life code "X" (indicating a shelf-life over 60 months) would be applied primarily to items in Federal Supply Group 65, "Medical, Dental, and Veterinary Equipment and Supplies," and secondarily, to a relatively small number of items within each of many weapon system oriented classes. However, shelf-life item coding data show that 5,772 (95.7%) of the 6,030 "X" coded items are in FSC 5910, "Capacitors."

Since about 95% of the "X" coded items are in a single Class and the vast majority of the items are managed by a single ICP, it was relatively convenient to obtain additional information about these items with a 60-plus months designated shelf-life. The ICP indicated that (a) many of the items had been transferred to the ICP from one of the Military Services; (b) the "X" shelf-life designation is being retained until the items require a supply action, such as purchases, or the items can be reviewed to determine whether the "X" shelf-life code should be retained; and (c) ultimately, many of the 5,772 will be removed from the Program or remain in the Program with a finite shelf-life code.

e. Trends

To evaluate the Program's size in terms of item range, determine its relative stability, growth, or contraction, and ascertain the impact of policy on procedural changes, comparable shelf-life item counts should be available for different time periods. A review of historical data from 1969 to present does not provide such comparable data arrays. The 1969 Study of Shelf-Life Item Management shows gross item counts of 84,632 shelf-life coded items, including 16,383 items with shelf-life of from 5 to 10 years. A post-1969 policy change resulted in most of the 16,283 items with a shelf-life code of over 5 years being removed from the Program. Further, the 1969 Study data is based on gross item counts vice net item counts, because net item data was not available in 1969.

Data from the DoD Materiel Utilization and Disposal Program Reports for Fiscal Years 1973 and 1974 show DoD shelf-life item counts of 41,709 and 42,503, respectively. A special report for the OSD, assembled from individual Military Service and DLA data in March 1978, shows a DoD shelf-life item count of 42,196.

When the (DIDS) net item count of 43,832 shelf-life coded items of May 1978 is related to the data for 1969, 1973, 1974, and (March) 1978, two observations may be made. First, a significant program contraction (in terms of shelf-life items managed) occurred between 1969 and 1973; probably because of post-1969 Study policy changes. Second, the Program has been relatively stable (in terms of shelf-life item management range) from 1973 to present. These observations are, in part, speculative because the data for times other than May 1978 (a) do not precisely account for the GSA managed items and (b) are dependent upon a variety of data sources — none subject to audit. The observations are presented primarily to show that shelf-life item data has been maintained, in one form or another, and efforts have been made to use such data, periodically.

3. Key Observations and Conclusions. Individually or in combination the shelf-life item range evaluations demonstrate the following:

a. DLSC-DIDS File data can be used to display (1) the range of shelf-life coded items, (2) selected characteristics for the items, and (3) the shelf-life item management activities, among other things.

b. The fact that only about one percent of the DoD-interest items are identified as shelf-life items and subjected to special management attention because of their shelf-life, indicates that Defense managers and GSA are demonstrating restraint in the designation of shelf-life items.

c. The DLSC-DIDS data does not provide the bases for (1) determining whether individual shelf-life codes are accurate or justified nor (2) identifying and solving specific materiel management problems. However, the DLSC-DIDS data does demonstrate that more definitive analysis of item identification or materiel management can be accomplished within a narrow range of commodities (i.e., 13 or less FSCs) and/or a relatively narrow range of materiel management activities (i.e., 7 or less ICPs).

d. On occasion the DLSC-DIDS data can be used to isolate a shelf-life item management problem, or potential problem, to a single FSC and/or a single ICP.

e. The DLSC-DIDS data displayed in this report can be used as a baseline, and in the future, the DLSC-DIDS File data can provide a consistent data base for ascertaining Program size and trends, in terms of shelf-life item range.

4. Program Administration Tasks. The Shelf-Life Item Management Program Administrator should:

a. Use the DLSC-DIDS shelf-life item data displayed in this Report as a baseline for shelf-life item range evaluation and a tool for pursuit of further analyses and evaluation.

b. Periodically (initially, every six months; after two years, annually) obtain similar shelf-life item data from DLSC.

c. Commence the development of trend charts to show Program size and changes; potentially valuable arrays are by:

(1) Total (net) item count to illustrate overall Program size.

(2) FSC to illustrate commodity dominance and the potential for more concentrated, detailed analysis.

(3) PICA to illustrate Component or ICP dominance and the potential for more concentrated, detailed analysis.

(4) Shelf-life code to illustrate the most commonly used codes, the potential for refinement of codes, and the potential for more concentrated, detailed analysis.

(NOTE: As the Program Administrator becomes familiar with the data and the data arrays, the most profitable arrays can be expanded; others of less value should be eliminated.)

d. Review the data, to assure the accuracy of (1) the data elements being used and (2) the programs for providing the data.

e. Use the data to evaluate item range policies, such as "the designation of items as shelf-life items will be held to a minimum" and "normally, only medical items will have a shelf-life code indicating more than five years of shelf-life"; and to identify the ICPs with actual or potential shelf-life item management problems.

C. DISPOSAL EVALUATION

1. Description

The purpose of this evaluation is to provide a continuing or periodic perspective of the disposal volume for shelf-life coded items in terms of number of items and/or transactions and/or dollar value. The primary Program goal and policy involved is:

-- "...minimize the risk of shelf-life expiration prior to issue," and hence, avoid the transfer of materiel to disposal because of expired shelf-life.

The deteriorative characteristic of a shelf-life item is a factor which in itself can generate disposal action — it is a factor beyond those which normally cause disposal action for items which are nondeteriorative. Therefore, if the disposal rate for shelf-life items is less than or equal to the disposal rate for nonshelf-life items, it can be assumed that the shelf-life item management system is satisfactory from a "shelf-life expiration" standpoint. If, on the other hand, the disposal rate for shelf-life items is higher than for nonshelf-life items, shelf-life expiration may be a cause of the higher rate. A disposal evaluation for shelf-life items is dependant on making this type of determination.

2. The Evaluation

a. Shelf-Life Item Disposal Volume

Disposal transaction data for transactions effected by National Stock Number are accumulated in a disposal history file at DPDS headquarters. By matching DLSC-DIDS NSNs for shelf-life items against the NSNs in the disposal history file it is possible to accumulate disposal information for the shelf-life items. Chapter I, paragraph F., "Data," describes the data elements identified and the disposal reports prepared using calendar year 1977 data.

Table III-2 shows summary disposal data for shelf-life items in relationship to total disposal data reported for calendar year 1977.

Table III-2

CALENDAR YEAR 1977 DISPOSAL DATA
($ Millions)

Materiel Category	ICP Directed		Non-ICP Directed		Total	
	$	%	$	%	$	%
Shelf-Life Coded:						
Consumables	$9.3	0.3	$57.6	1.7	$66.9	2.0
Nonconsumables	31.9	0.9	27.3	0.8	59.2	1.7
Total for S-L Coded Items	41.2	1.2	84.9	2.5	126.1	3.7
Not Shelf-Life Coded	810.8	23.7	2,483.1	72.6	3,293.9	96.3
Total	$852.0	24.9	$2,568.0	75.1	$3,420.0	100.0

Source: IDMS Disposal History File

As discussed in Chapter II, nonconsumable items having shelf-life codes generally are not managed as shelf-life items, but rather as "reparables," "investment items," or "end items." Therefore, shelf-life item management evaluations based on Table III-3 data are limited to the $66.9 million displayed for consumable shelf-life items.

The disposal value of $66.9 million associated with shelf-life consumable items is a relatively low dollar value in contrast to the overall total of $3.4 billion; however, the consumable shelf-life item disposal value represents 2.0% of the total disposal value, and is disproportionally large when related to the fact that shelf-life items represent only about 1.0% of the total item range.

The disposal data accumulation system does not provide a means for precisely identifying the disposal actions accuracy because of shelf-life expiration. The data in Table III-2; however, indicates that disposal due to shelf-life termination during calendar year 1977 could have been as high as $33.5 million or about 1.0% of the overall disposal value. The actual extent of shelf-life termination can only be determinated by further analysis.

Table III-2 provides data for one more step in a shelf-life item management disposal evaluation. This is based on the differentiation of where, ICP or non-ICP, the disposal action is initiated. The table shows that ICPs directed shelf-life consumable item disposals for materiel valued at only $9.3 million (0.3% of the CY 1977 total), while non-ICPs (e.g., retail managers or users) directed disposals for materiel valued at $57.6 million (1.7% of the total).

This information indicates that from a disposal evaluation standpoint the management of shelf-life materiel at the wholesale ICP level is excellent, but a problem may exist at the retail/user level.

b. Item Managers

Of the $9.3 million of shelf-life consumable item dispositions initiated by ICPs, approximately $8.5 million (over 90%) was initiated by eight ICPs. Each of the ICPs initiated shelf-life item disposal actions of $100 thousand or more in CY 1977. The ICPs are:

Army: CERCOM and TSARCOM
Navy: ASO and SPCC
Air Force: OOALC
DLA: DGSC, DISC, and DPSC

The two Navy and three DLA ICPs are among the seven ICPs managing over 90% of the shelf-life consumable items. The other three ICPs each manage between 200 and 300 consumable shelf-life items.

Review of data for the non-ICP directed disposals shows that, generally, the same ICPs as listed above are managers for the shelf-life materiel entering the disposal system. However, three additional ICPs are involved to a significant degree. The additional materiel managers are TARCOM (Army), DESC (DLA), and GSA.

c. Commodities with Shelf-Life Item Disposal

Again, as with item range data, based on the assumption that commodities because of varying deteriorative characteristics would play a significant role in shelf-life disposal processes, the disposal data was sorted by FSC. Over 200 FSCs show disposal transactions for one or more consumable shelf-life items during calendar year 1977.

Table III-3 provides a listing of the 12 FSCs with the highest dollar value of disposals as directed by ICPs; each FSC had disposal values of $100 thousand or more.

Table III-3

FSCs WITH HIGH DOLLAR VALUE
OF ICP-DIRECTED SHELF-LIFE ITEM DISPOSALS
(CY 1977)

FSC	Name	Disposal Value (Millions)
1420	Guided Missile Components	$0.1
1560	Airframe Structural Components	0.1
1650	A/C Hydraulic, Vacuum, & De-icing Components	0.5
1670	Parachutes; Aerial Pick-up Systems	0.8
2915	Aircraft Engine Fuel System Components	0.8
4810	Powered Valves	0.1
5330	Packing and Gasket Materiel	0.1
6135	Primary Batteries	1.1
6750	Photographic Supplies	0.2
6850	Miscellaneous Chemical Specialties	0.1
8405	Men's Outerwear	3.8
8960	Nonalcoholic Beverages	0.1
12 FSCs	Total Value	$7.8

Source: IDMS Disposal History File and DLAO Analysis

The 12 FSCs displayed in Table III-3 accounted for $7.8 million (83.9%) of the ICP directed CY 1977 disposal actions for shelf-life consumable items. The disposal transaction data could also be used to identify the ICP managing the shelf-life item and directing the disposal action. As a result, additional information was sought regarding specific disposal transactions in a few Classes. For example, queries regarding the ICP-directed disposal actions in FSC 8405 revealed that a dozen NSNs accounted for nearly all of the disposal value. The items are various sizes of a defective, unissued raincoat for which the disposal decision was cleared at the OSD level — and the disposal action was not related to "shelf-life expiration."

Table III-4 provides a listing of the 12 FSCs with the highest dollar value of disposals as directed by "other than ICPs"; each FSC had disposal values of $500 thousand or more.

Table III-4

FSCs WITH HIGH DOLLAR VALUE OF OTHER THAN ICP-DIRECTED SHELF-LIFE ITEM DISPOSAL (CY 1977)

FSC	Name	Disposal Value (Millions)
1420	Guided Missile Components	$0.9
1670	Parachutes, Aerial Pick-up Systems	3.6
2640	Tire Rebuilding, & Tire & Tube Repair Materiel	0.7
6115	Electrical Generators and Generator Sets	1.1
6140	Secondary Batteries	33.9
6750	Photographic Supplies	1.2
6850	Miscellaneous Chemical Specialties	0.5
8010	Paints, Dopes, Varnishes, & Related Products	1.9
8030	Preservatives and Sealing Compounds	0.9
8405	Men's Outerwear	0.5
8430	Men's Footwear	0.8
9150	Oils & Greases: Cutting, Lubricating, & Hydraulic	1.6
12 FSCs	Total Value	$47.6

Source: IDMS Disposal History File and DLAO Analysis

The 12 FSCs displayed in Table III-4 account for $47.6 million (82.6%) of the non-ICP directed CY 1977 disposal actions for shelf-life consumable items. The disposal transaction data could also be used to identify, by activity address code, the turn-in activity. Associated NSN and DLSC-DIDS data could be used to identify the item manager for the Class or NSN. As with other data, the vast majority of transactions are associated with a very limited range of commodities. Review of data in Tables III-3 and III-4 shows that disposal transactions for certain commodities, such as Guided Missile Components (FSC 1420), Cargo Parachutes (FSC 1670), Photographic Supplies (FSC 6750), Miscellaneous Chemical Specialties (FSC 6850) and Men's Outerwear (FSC 8405) generate high value disposals by ICP and non-ICP direction. Other commodities, including those managed by GSA (Paints and Preservatives), show significant disposal quantities only as directed by other than ICPs. Both of these observations provide leads to more finite analyses at specific organizational locations.

Drugs, Biologicals, and Official Reagents (FSC 6505) and Nonperishable Subsistence are DLA, Defense Personnel Support Center (DPSC) managed materiel categories having a significant inventory value for shelf-life items. These materiel categories did not receive

a special in-depth review and analysis as part of this Study. Since these commodities are managed by DLA, they are subject to a limited degree of management reporting, through the DPSC Quarterly Shelf-Life Report. It is assumed that close scrutiny by a shelf-life item program administrator would confirm the consistently low rates of disposal revealed by other studies. However, neither of these commodities utilizes the routine PDO processes to an appreciable extent; and therefore, disposal data from other sources than the IDMS may be required.

Disposal transaction data is not designed for and, as presently constituted, does not provide information to show the extent shelf-life items are disposed of solely because of expired useful life. The mechanized materiel management system used throughout the DoD could provide this information. Its provision would be facilitated by use of the MILSTRAP Condition Codes for the inventory accounting of shelf-life assets. Condition Code "H" is now prescribed to designate those shelf-life items that are condemned when transferred to disposal. Hence, the coding mechanism is available. However, to fill the management reporting information need regarding "disposal due to shelf-life expiration," a program manager will have to arrange for the collection and display of "Code H" data.

3. Key Observations and Conclusions. Individually or in combination, the shelf-life item disposal evaluations demonstrate the following:

a. DPDS-IDMS Disposal History File data coupled with DLSC-DIDS data can be used to display the volume of shelf-life materiel input to disposal when the input is identified by NSN. (The vast majority of disposal transactions are identified by NSN.)

b. The disposal history file data can be used to ascertain the volume of disposal for shelf-life coded items vice nonshelf-life items; however, it does not provide the specific reason for disposal, such as the fact that "the shelf-life has expired." Obtaining such detailed information requires further research of Class or item data.

c. A comparison of shelf-life item disposal value to overall disposal value indicates that from a materiel disposal standpoint shelf-life coded items are managed by PICAs as well, or better, than the overall item range; however, the volume of disposals generated by other than ICPs indicates that a problem may exist at retail/user level.

d. The DPDS-IDMS Disposal History data coupled with the DLSC-DIDS data demonstrate that more definitive analyses of shelf-life item

disposal volume can be accomplished within a narrow range of commodities (i.e., 19 or less FSCs) and/or a relatively narrow range of materiel management activities (i.e., 10 or less DoD ICPs).

e. On occasion, the IDMS Disposal History data, coupled with the DIDS data, can be used to isolate a shelf-life item disposal problem, or potential problem, to a single FSC and/or a single ICP; and with some additional effort "other than ICP" directed disposals could be identified by turn-in activity or to the DPDO receiving the materiel.

f. Precisely identifying "disposals due to shelf-life expiration" will require the collection and display of MILSTRAP Code H, "Condemned," data for consumable shelf-life items as they are transferred to disposal.

g. The type of disposal data displayed in this Report can be arrayed to show (1) comparisons or contrasts (shelf-life materiel vice nonshelf-life materiel) by Class or managing ICP and, if produced periodically, (2) trends associated with Class or managing ICP.

4. Program Administration Tasks. The Shelf-Life Item Management Program Administrator should:

a. Use the DPDS-IDMS Disposal History data coupled with the DLSC-DIDS data as a basis for shelf-life item disposal evaluation and a tool for pursuit of further analyses and evaluations.

b. Periodically (at least annually) obtain data similar to that displayed in this report from the DPDS and DLSC.

c. Commence the development of trend charts to show shelf-life item disposal volume and changes; potentially valuable arrays are by:

(1) Total shelf-life consumable item disposal vice total disposal program to ascertain overall Program relationships.

(2) FSC to illustrate commodity dominance and the potential for more concentrated, detailed analysis.

(3) PICA to illustrate Component or ICP dominance and the potential for more concentrated, detailed analysis.

(4) Shelf-life code to seek relationships between shelf-life and disposal volume.

(5) Turn-in activity to determine whether a particular Component, retail manager, or user is generating an unusual volume of shelf-life disposals.

(6) DPDO to determine whether activities or geographical conditions within an area are causing an unusual volume of shelf-life disposals.

(NOTE: While data arrays such as those suggested in (4), (5), and (6) — immediately above — were not displayed for this Study, the data is available and such arrays can be programmed.)

d. Review the data and the programs used for the disposal analyses to assure the accuracy of the data elements being used and the programs for providing the data, as well as to identify additional meaningful data arrays.

e. Use the data to evaluate the extent to which "the risk of shelf-life expiration" is being "minimized" as a result of shelf-life item identification, control, and utilization.

D. MATERIEL MANAGEMENT EVALUATION

1. Description

The purpose of this evaluation is to ascertain how well item managers or PICAs are managing shelf-life coded items; individually, as a category, or in relationship to other categories. The primary Program goal and policy involved is:

-- "....maintain the requisite level of stock availability," to assure responsive support, while minimizing the risk of shelf-life expiration.

Subsidiary policies state that, normally:

-- Items with less than six months shelf-life will not be stocked at the wholesale level;

-- Items with more than six months and less than 30 months shelf-life shall have a stockage objective of half the rotatable quantity, or equal to one year's forecasted demand, whichever is less;

-- Items with more than 30 months shelf-life shall have a stockage objective not to exceed the shelf-life of the item;

-- Procurement cycle requirement quantities for items with less than 30 months shelf-life will be equal to the six months forecasted demand quantity or less; and

-- For commercially available items with a shelf-life of six months or less, indefinite delivery type contracts are a preferred means of supply (vice DoD storage).

These policies are designed to restrict inventory levels in relationship to shelf-life and thereby avoid shelf-life expiration. Implementation of the policies can be ascertained in part through the use of DLSC-DIDS file data and DPDS-IDMS Disposal History data. However, the inventory, sales/issues, and stock availability data required for evaluation can be obtained only from the PICAs managing the shelf-life items. The use of DLSC-DIDS data exclusively and the application of DLSC-DIDS information coupled with PICA data is illustrated in the following shelf-life item management evaluations.

2. The Evaluations

a. Stocked and Nonstocked Shelf-Life Items

To ascertain whether (1) the shelf-life items with a designated shelf-life of six months or less are managed, "normally," without wholesale inventory and (2) the shelf-life designation impacts on a stock versus nonstock management decision, DLSC-DIDS item management data was arrayed by stocked and nonstocked items within shelf-life code. The results are summarized in Table III-5.

Table III-5

STOCKED VERSUS NONSTOCKED
CONSUMABLE SHELF-LIFE ITEMS BY SHELF-LIFE CATEGORY
(May 1978)

Shelf-Life Category	Stocked		Nonstocked		Total Items
	Items	%	Items	%	
6 months or less	218	11.2	1,726	88.8	1,944
7 thru 12 months	714	16.3	3,654	83.7	4,368
13 thru 18 months	733	46.6	840	53.4	1,573
19 thru 24 months	2,082	44.5	2,600	55.5	4,682
25 thru 36 months	3,489	70.7	1,449	29.3	4,938
48 months	1,156	84.6	210	15.4	1,366
60 months	9,431	83.6	1,856	16.4	11,287
< 60 months	4,053	67.2	1,977	32.8	6,030
Total	21,876	60.5	14,312	39.5	36,188

Source: DIDS File and DLAO Analysis

Table III-5 data demonstrates that for items having a shelf-life designator of six months or less, only about 10% are managed with stock. For items with shelf-life designators of six months to one year, the chance of stockage is about 15%. For items with shelf-life designators of one to two years, nearly 50% are managed with stock. For items having shelf-life designators greater than two years, from two-thirds to 85% of the items are managed with stocks. This type of progression indicates that the projected shelf-life of an item does play a role in the materiel management decisions for the items.

Of the 218 stocked items, shown in Table III-5, having a shelf-life designation of "6 months or less," 102 items had shelf-life designators or less than six months. This demonstrates that the policy advocating nonstockage at the wholesale level for items with less than six months shelf-life is generally being followed.

The extent to which items are managed without stock may be an indication of the extent to which indefinite delivery type contracts are being used as a means of supply. The most obvious application of this supply management approach can be observed for the GSA shelf-life item range. Data for GSA indicates that only 15 of 5,357 shelf-life coded GSA items are managed as stocked items. A review of GSA indefinite delivery type contracts shows that the GSA managed FSCs containing a large number of shelf-life coded items (e.g., FSCs 8010, 8030, and 8040) are on Federal Supply Schedules.

b. Inventory Value of Shelf-Life Items

Shelf-life item and disposal data provided from DLSC and DPDS shows that certain commodities/FSCs contain a very high percentage of the shelf-life items and account for a vast majority of the disposal value. To ascertain whether the FSCs with high shelf-life item counts also account for a large portion of the inventory value, several DLA managed Classes with high item counts were selected for review. DLA managed Classes were chosen because of the ready availability of the Quarterly Shelf-Life Item Reports for each Defense Service Center (DSC). The results of the review follow:

FSC	PICA	Inventory Situation 1/
4720	DCSC	FSC 4720 contained 313 (60.7%) of the 516 shelf-life items managed by DCSC; the Class accounted for $1.5 million (32.6%) of the $4.6 million in shelf-life item inventory.
5330	DISC	FSC 5330 contained 4,179 (94.4%) of the 4,426 shelf-life items managed by DISC; the Class accounted for $2.0 million (83.3%) of the $2.4 million in shelf-lfe inventory.
5910	DESC	FSC 5910 contained 5,445 (92.3%) of the 5,900 shelf-life items managed by DESC. The Class accounted for $1.3 million (92.9%) of the $1.4 million in shelf-life inventory.
6505	DPSC	FSC 6505 contained 1,314 (76.8%) of the 1,711 shelf-life medical items managed by DPSC; the Class accounted for $52.0 million (92.7%) of the $56.1 million in medical shelf-life inventory.
6750	DGSC	FSC 6750 contained 2,223 (45.7%) of the 4,864 shelf-life items managed by DGSC. The Class accounted for $10.1 million (34.0%) of the $29.7 million in shelf-life inventory.
9150	DGSC	FSC 9150 contained 565 (11.6%) of the 4,864 shelf-life items managed by DGSC. The Class accounted for $12.5 million (42.1%) of the $29.7 million in shelf-life inventory.

1/ Total shelf-life items managed based on DIDS file data as of May 1978; other factors based on DSC F-281 Reports of March 1978.

These data indicate that FSCs with relatively high shelf-life item counts are likely to account for a relatively high percentage of the shelf-life item inventory. Of themselves the data do not permit evaluation of shelf-life item management, but do support the premise that shelf-life item materiel management can be evaluated by reviewing and analyzing a relatively narrow range of FSCs.

c. Performance Indicators

To precisely evaluate the shelf-life item management policies outlined in subparagraph D.1. of this Chapter would require inventory and sales/issue data by shelf-life item or, at minimum, by

shelf-life code. Further, performance indicators reflecting such things as stock turn, stock availability, or long supply would have to be accumulated by, at minimum, selected shelf-life categories. Data of this nature is not maintained in this fashion; however, such data is maintained, at DSCs, by FSC.

In pursuit of a more detailed shelf-life item management evaluation two DGSC Classes — each containing a high number and percentage of shelf-life items — were reviewed, and the results were compared to overall DGSC item management evaluation data. The two Classes used for the comparative evaluation are FSC 6750, Photographic Supplies, for which three-fourth of the items have shelf-life codes and FSC 9150, Oils and Greases (cutting, lubricating, and hydraulic), for which two-thirds of the items have shelf-life codes. The results of the review are displayed in Table III-6.

Table III-6

COMPARISON OF MANAGEMENT DATA FOR PREDOMINANTLY SHELF-LIFE ITEM CLASSES TO OVERALL MANAGEMENT DATA

Data/Evaluation Factors	DGSC	FSC 6750	FSC 9150
a. Items Managed (as of 31 Dec 77)	205,843 1/	3,054 2/	850 3/
b. Inventory Value (millions) (as of 31 Dec 77)	$314.1	$12.1	$19.6
c. Issues/sales (millions) 4/ (CY 77)	$359.3	$18.3	$38.9
d. Long Supply (millions) (as of Dec 77)	$79.3	$0.5	$0.05
e. DGSC Directed Disposal (millions) (CY 77)	$31.5	$0.5	$0.2
f. Annual Stock Turn (line c ÷ line b)	1.1	1.5	2.0
g. Percent Long Supply (line d ÷ line b)	25.2%	4.1%	0.3%
h. Percent to Disposal (line e ÷ line b)	10.0%	4.1%	1.0%
i. Stock Availability (CY 77)	91.2%	93.0%	88.9%

Source: On-site review; data from DGSC management reports

1/ About 2% are shelf-life coded items.
2/ About 75% are shelf-life coded items.
3/ About 67% are shelf-life coded items.
4/ Excludes sales to schools.

Table III-6 shows that the two FSCs containing predominantly shelf-life coded items have higher "stock turns," lower "long supply" inventory, and lower "disposal rates" than is reflected for the overall DGSC item range which includes the Classes, but has an overall shelf-life item range of only 2%. These data demonstrate that DGSC and the item managers are successfully applying the shelf-life item management policies and techniques aimed at restricting inventory investment and avoiding shelf-life expiration.

On the supply responsiveness side of the picture, the data shows relatively high "Stock Availability" for DGSC and the two separately identified FSCs. For one shelf-life dominant FSC the Stock Availability was 1.8% higher than the DGSC figure; for the other FSC the stock availability was 2.3% lower. Stock Availability for February 1978 showed: DGSC overall, 89.3%; FSC 6750, 87.3%; and FSC 9150, 87.6%. The February data showed slightly lower availability for the shelf-life Classes than for DGSC overall; however, the aggregate availability differences were less than 2.0%.

The combinations of data (lower inventory investment, high stock turn, and lower disposal rates, coupled with similar or only slightly lower stock availability) for FSCs 6750 and 9150 indicate that shelf-life item management for these commodities is being applied successfully. Similar evaluations can, and should be, made for other FSCs containing a large number and/or percentage of shelf-life items.

3. Key Observations and Conclusions. Individually or in combination, the shelf-life item management evaluations demonstrate the following:

a. DLSC-DIDS item data and DPDS disposal data provide indicators of how well certain shelf-life item materiel management policies are being performed and provide a means for selectively performing more intensive reviews and analyses.

b. Generally, in-depth evaluation of shelf-life item materiel management requires that item range and disposal data be complimented by other data such as inventory values, sales/issue value, and one or more responsiveness indicators which, for shelf-life items, are available only at the managing ICP; and then only with special effort.

c. When a commodity/FSC contains a large number of shelf-life items and/or has a high volume of shelf-life item disposals, it is likely that the FSC will also account for a significant shelf-life item inventory investment and, therefore, be a candidate for shelf-life item management management evaluation at the managing ICP.

d. At DSCs managing over half of the DoD shelf-life items, shelf-life item materiel management can be evaluated based on individual item data or Class data with only a small amount of special effort.

e. The selective, annual analysis of shelf-life items in 20 or less FSCs and managed by 10 or less ICPs should provide an adequate evaluation of the materiel management aspects of the DoD Shelf-Life Item Management Program.

4. Program Administration Tasks. The Shelf-Life Item Management Program Administrator should:

a. Periodically (initially, every six months; after two years, annually) have a data array similar to that set forth in Table III-5 produced and review the data to ascertain (1) whether the nonstockage policy for items with short shelf-life is being complied with and (2) whether estimated shelf-life length is influencing the stock versus nonstock decision.

b. Periodically (at least annually) use DLSC-DIDS item data and DPDS-IDMS disposal data to select a set of FSCs and ICPs for an in-depth review of shelf-life item materiel management.

c. In conjunction with ICP personnel, conduct reviews and analyses of shelf-life item materiel management for the "bell-weather" Classes selected. The reviews may be conducted through use of telephone queries, correspondence, on-site research, or a combination of these. Initially, because of differences in materiel management processes, including terminology, at ICPs of different Components, extensive on-site review is essential.

d. Develop materiel management evaluation techniques, similar to the one displayed in Table III-6, which will minimize the effort and resources required to conduct the ICP shelf-life item materiel management evaluations.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A. THE ASSIGNMENT

In 1977 the General Accounting Office (GAO) conducted installation level audits of disposal actions involving items with shelf-life codes. As a result of these audits, the GAO was critical of the Department of Defense (DoD) and recommended that a management reporting system be established to "routinely identify the extent to which materiel is being disposed of because of expired shelf-life." The GAO proposal for a shelf-life item management reporting system is similar to internal DoD study proposals; particularly, a proposal made in a 1969 examination of the DoD Shelf-Life Item Management Program.

In response to the GAO criticism, the Office of the Secretary of Defense (OSD) admitted that specific program evaluation data is not being provided, routinely, for management purposes. In addition, the OSD response referred to a DoD moratorium, of 19 May 1977, on the establishment of information collection and processing systems.

Subsequently, in January 1978, the Defense Logistics Analysis Office (DLAO) was given a study assignment to:

> "Determine the appropriate method for monitoring and evaluating the effectiveness of the Department of Defense (DoD) Shelf-Life Item Management Program."

In making this study assignment the OSD advised that the conclusions and recommendations of the study must recognize and address the constraints of the Deputy Secretary of Defense Memorandum, dated May 19, 1977, "Moratorium on the Establishment of DoD Information Collection and Processing Systems and Data Bases."

B. SHELF-LIFE ITEM MANAGEMENT PROGRAM OVERVIEW

A review of the shelf-life item management program from a DoD-wide and individual Component standpoint provides the information for the following program overview.

1. Organizational Responsibility. Each DoD Component having item management responsibility and General Services Administration (GSA) recognize a need to (a) identify shelf-life items and (b) apply special guidelines, policies, and procedures to the management of shelf-life items.

2. Policy Directives. DoD Instruction 4140.27, "Identification, Control, and Utilization of Shelf-Life Items," dated 8 February 1974, and DoD 4140.27-M, "Shelf-Life Item Management Manual," of August 1976 contain basic guidance, policy, and procedures for the management and control of shelf-life items. In general, shelf-life item management objectives and policies published and distributed by the DoD Components and GSA are identical to the objectives, policies, and procedures set forth in DoD Instruction 4140.27 and DoD Manual 4140.27-M.

3. Shelf-Life Item Range. Only 43,832 items have shelf-life codes assigned; of these 36,188 are consumable items. Generally, only consumable items are managed as shelf-life items; nonconsumables are managed within other special programs as reparables, investment items, or end items. Hence, in terms of items managed, the Shelf-Life Item Management Program is relatively small — less than 1% of the DoD-interest items.

4. Commodity Concentration. Of the 36,188 consumable shelf-life coded items, 25,440 items (70.3%) are concentrated in 13 Federal Supply Classes (FSCs). 21,315 items (58.9%) are concentrated in seven FSCs.

5. Item Management Concentration. Of the 36,188 items managed routinely as shelf-life items, 54.4% are managed by the Defense Logistics Agency (DLA); 24.5% are managed by the Navy; and 14.8% are managed, as nonstocked items, by GSA. Within DoD, the following six Primary Inventory Control Activities (PICAs) manage 77.4% of the consumable shelf-life coded items:

PICA	No. of Items	% of Total
Defense Electronics Supply Center	5,900	16.3
Naval Ships Parts Control Center	5,364	14.8
Defense General Supply Center	4,864	13.4
Defense Industrial Supply Center	4,426	12.2
Defense Personnel Support Center	3,974	11.0
Naval Aviation Supply Office	3,506	9.7

These data illustrate that (a) DLA managed items comprise over half of the shelf-life item range and (b) item management data for over 90% of the items managed as shelf-life items can be obtained from seven PICAs: four DSCs, two Navy ICPs, and the Federal Supply Service of GSA.

6. Management Reports and Program Evaluation. Currently, neither the program sponsor in OSD nor the administrator in DLA receive management reports for evaluation of the Program on a DoD-wide basis. Similarly, the Service and Agency organizational elements responsible for

the publication and distribution of shelf-life item identification and control policies and procedures do not have management data systems oriented toward evaluation of shelf-life item management. However, because (1) the range of shelf-life coded items is small (about 1% of the DoD-interest item range); (2) the vast majority (about 70%) of the shelf-life managed items are in only 13 FSCs; and (3) over 90% of the shelf-life coded consumable items are managed by only 7 PICAs; a relatively small, simple, low-cost data system should suffice for evaluation of the DoD Shelf-Life Item Management Program.

C. PROGRAM EVALUATION

A series of reviews and analyses related to specific shelf-life item management program policies and practices illustrate that (1) the Defense Logistics Services Center (DLSC), Defense Integrated Data System (DIDS) files, (2) the Defense Property Disposal Service (DPDS), Integrated Disposal Management System (IDMS) files, and (3) the PICAs managing the vast majority of shelf-life coded items can provide data from existing systems for evaluation of the DoD Shelf-Life Item Management Program.

1. The DLSC-DIDS Files. The DLSC-DIDS files, as presently constituted, contain data which can be used to display:

-- The number of shelf-life coded items in the Program at a given point in time (a baseline); and/or

-- The Program's stability or direction (trends); and/or

-- The characteristics of shelf-life items; and/or

-- The commodities or FSCs which, because of the large number or percentage of shelf-life coded items, may require special attention and action; and/or

-- The PICAs and SICAs responsible for the management of shelf-life items.

Reports and listings displaying management evaluation data of this nature have been and can be produced with the application of a relatively small amount of resources. (See paragraph IV.D.3. of this Report.)

2. The DPDS-IDMS Files. Data contained in the DPDS-IDMS Disposal History File coupled with data from the DLSC-DIDS Files can be used to display:

-- The volume of shelf-life coded items entering the disposal program in terms of number of items, number of transactions, and dollar value of materiel; and/or

-- The shelf-life items, commodities, or FSCs which, because of their disposal volume, require specific attention or action; and/or

-- Whether disposal volume for shelf-life items is proportionately less than, equal to, or greater than disposal volumes for other than shelf-life items; and/or

-- The organization level, ICP or below ICP, generating the disposal actions; and/or

-- The specific ICP, retail activity, or consumer activity generating shelf-life item disposal actions.

Reports and listings displaying management evaluation data of this nature have been and can be produced with the application of a relatively small amount of resources. (See paragraph IV.D.3. of this Report.)

3. Inventory Control Point Data. In-depth evaluation of shelf-life item materiel management requires that DLSC-DIDS item range and DPDS-IMDS disposal data be complemented by other data, such as:

-- The dollar value of shelf-life item inventory and sales/issues; and/or

-- The stock turn rate; and/or

-- The effectiveness rate, in terms of "fill" or "customer satisfaction"; and/or

-- Whether effectiveness factors for shelf-life items are lower than, equal to, or higher than the same factors for other than shelf-life items.

Reports and listings displaying management evaluation data of this nature have been and can be produced. However, the data is available only at the Inventory Control Point (ICP) managing the item; and then only with special effort. Routinely producing such data for all shelf-life coded items could be expensive. However, the selective, annual analysis of such data for shelf-life coded items in 20 or less dominant FSCs and managed by 10 or less ICPs could be accomplished with only a small amount of special effort and should provide an adequate evaluation of the materiel management aspects of the DoD Shelf-Life Item Management Program.

D. CONTINUING PROGRAM ADMINISTRATION

1. General

Chapters I through III of this Report describe, briefly, the philosophies, policies, and practices for identifying and controlling shelf-life coded items used by the DoD. The Chapters also provide a perspective of the DoD-wide and Component shelf-life item management programs for calendar year 1977 and as of May 1978. The shelf-life item data set forth in Chapter I, II, and III provide, to a large extent, a baseline for evaluation of the DoD Shelf-Life Item Management Program.

To be of lasting value for program evaluation, the baseline data must be perpetuated, evaluated periodically, and modified and/or improved as management needs rise. Paragraphs III.A.3. and 4., B.4., C.4., and D.4. of Chapter III, "Program Evaluation," provide suggestions for establishing, maintaining, and improving a data base for shelf-life item management program evaluation. Such tasks must be performed by a designated program administrator.

2. The Program Administrator

Paragraph V of DoD Instruction 4140.27 states that the Director, DLA, will (1) Administer the DoD Shelf-Life Item Management Program in accordance with the DLA Charter, (2) develop and maintain the DoD Shelf-Life Item Management Manual, and (3) prepare and/or evaluate reports on shelf-life management required to be submitted by the DoD Instruction. Chapter II of this Report shows that DLA, DSCs are responsible for about 55% of the items managed as "shelf-life items" and that each DSC prepares a set of management reports oriented toward these items; in addition, GSA manages about 15% of the shelf-life coded items used by the DoD. Chapters I through III of the Report illustrate the extent to which two DLA Service Centers, DLSC and DPDS, can provide basic item and disposal data for the evaluation of a shelf-life item management program.

Since (1) the Director, DLA, is currently designated as the DoD Shelf-Life Item Management Administrator, (2) DLA has management responsibility for a majority of the items managed as shelf-life items, (3) DLA has responsibility for coordinating DoD-GSA support for DoD-used items, and (4) two DLA Service Centers can provide basic item and disposal data for program evaluation purposes, it is concluded that the Defense Logistics Agency should have a continuing role as the DoD Shelf-Life Item Management Program Administrator.

The need for this Study effort indicates that there is a program evaluation problem. Headquarters level research associated with the Study indicates that, at present, the DLA Charter (dated January 1977 and July 1978) does not refer to "Shelf-Life Item Management Program Administration." The research also indicates that shelf-life item management program administration is fragmented among two or three directorates within DLA Headquarters. Furthermore, the program administration process does not, routinely, provide program evaluation information to either the Director, DLA, or the Director for Supply Management Policy in the Office of the Secretary of Defense. In view of these shortcomings and to assure program review and evaluation in the future, it is concluded that (1) the DLA Charter should be updated to include responsibility for Shelf-Life Item Management Program Administration and (2) responsibility for DoD Shelf-Life Item Management Program evaluation should be assigned to a designated individual within a single, specific organization element of DLA Headquarters.

3. Program Evaluation Cost

Performance of the reviews and analyses leading to this Report and production of the Report consumed approximately 1.5 person-years of professional resources, supported by less than 0.5 person-year of administrative effort. This was a one-time project, involving a learning period and probing into data sources not previously used for shelf-life item management program evaluation. Hence, it is estimated that maintaining and updating a shelf-life item management program evaluation system on a continuing basis will require, at maximum, one person-year of effort at an annual cost of about $35,000.

The estimated cost of producing the DLSC-DIDS and DPDS-IDMS reports and listings used for this Study were determined by the organizations providing the data; the costs are:

Activity/Source	Programming Costs	Machine Costs
DLSC-DIDS	$3,750	$756
DPDS-IMDS	1,370	189
Total	$5,120	$945

The programming and machine costs of approximately $6 thousand are sunk costs associated with this Study effort. The programs are developed and can be reused. Based on the DLSC and DPDS cost estimates, annual modification and updates of the programs may cost a thousand dollars. Machine time for production of reports and listings, on a six-months basis, may cost about two thousand dollars annually. Hence, production of basic shelf-life item and disposal data similar to those used for this Study can be produced for an annual cost of about $3,000.

Program administrator's telephone calls and TDY to PICAs, Property Disposal Offices (PDOs), and User/Consumer activities and the provision of selective, special reports or listings (as illustrated in Chapter III) by these activities will generate additional costs. In aggregate, these annual costs are estimated at about $6,000.

The sum of these estimated annual DoD Shelf-Life Item Management Program Evaluation costs (one program administrator, $35,000; DLSC-DIDS and DPDS-IMDS basic data, $3,000; and associated administration and special data, $6,000) is $44 thousand. Of this, only about $10 thousand is associated with the development of meaningful, new management reports, listings, and indicators. In general, the data itself is accumulated from currently existing systems and programs.

4. Program Evaluation Potential

There are three basic goals underlying the philosophies, policies, and practices of the shelf-life item management program. These are:

** Minimize the Number of Items Managed as Shelf-Life Items; that is, do not waste operating funds applying special management techniques to items that do not require special management.

** Avoid Disposal of Materiel Due to Shelf-Life Expiration; that is, be aware of stock level restrictions and do not waste procurement funds on inventory that will deteriorate.

** Maintain Responsiveness; that is, provide an adequate inventory level or an alternate source of supply to assure a supply-effective system, while operating within the restraints of minimal special management and minimal stock levels.

Methodology and data in Chapters I through III of this Report provide, with a relatively small amount of effort and at a very low cost, means for:

-- Ascertaining the status of the DoD Shelf-Life Item Management Program in terms of number of items, item characteristics, and trends;

-- Identifying specific areas, in terms of FSCs, ICPs, or PDOs, "where the action is" and where specific problems regarding shelf-life item control may occur; and

-- Obtaining, selectively, specific shelf-life item management data, such as inventory, sales/issues, disposal quantities and value, and performance indicators for evaluation of the shelf-life item management policies and practices.

Obtaining and analyzing such information is vital to an evaluation of how well the goals of the DoD Shelf-Life Item Management Program are being attained.

E. RECOMMENDATIONS

In view of the foregoing findings, analyses, and conclusions, it is recommended that:

1. THE ASSISTANT SECRETARY OF DEFENSE (MANPOWER, RESERVE AFFAIRS AND LOGISTICS), ASD(MRA&L), INITIATE ACTION TO EXPAND PARAGRAPH E, FUNCTIONS, OF DoD DIRECTIVE 5105.22, "DEFENSE LOGISTICS AGENCY (DLA)," THE DLA CHARTER, TO INCLUDE:

   "SHELF-LIFE ITEM MANAGEMENT

   "a. ADMINISTER THE DoD SHELF-LIFE ITEM MANAGEMENT PROGRAM.

   "b. REVIEW AND EVALUATE THE OPERATION OF THE DoD SHELF-LIFE ITEM MANAGEMENT PROGRAM ON A CONTINUING BASIS.

   "c. PERIODICALLY, AT LEAST ANNUALLY, PROVIDE A DoD SHELF-LIFE ITEM MANAGEMENT PROGRAM EVALUATION REPORT TO THE OFFICE OF THE ASD(MRA&L).

   "d. RECOMMEND SHELF-LIFE ITEM MANAGEMENT POLICY AND PROCEDURAL CHANGES, AS REQUIRED."

2. THE DIRECTOR, DEFENSE LOGISTICS AGENCY, ASSIGN RESPONSIBILITY FOR EVALUATION OF THE DoD SHELF-LIFE ITEM MANAGEMENT PROGRAM TO A SINGLE, SPECIFIC ORGANIZATIONAL ELEMENT WITHIN THE HEADQUARTERS, DEFENSE LOGISTICS AGENCY.

3. THE HEADQUARTERS, DEFENSE LOGISTICS AGENCY ORGANIZATIONAL ELEMENT RESPONSIBLE FOR ADMINISTRATION OF THE DoD SHELF-LIFE ITEM MANAGEMENT PROGRAM DESIGNATE AN INDIVIDUAL AS THE DoD SHELF-LIFE ITEM MANAGEMENT PROGRAM FOCAL POINT, RESPONSIBLE FOR PERFORMANCE OF THE FOLLOWING TASKS:

a. ESTABLISH AND MONITOR THE DoD SHELF-LIFE ITEM MANAGEMENT PROGRAM DATA BASE. (INITIALLY, AS DESCRIBED IN CHAPTER I, PARAGRAPHS I.D. AND I.F., AND AS DISPLAYED IN TABLES II-1 THROUGH II-5 AND III-1 THROUGH III-5 OF THIS REPORT; SUBSEQUENTLY, AS EXPERIENCE AND MANAGEMENT NEEDS DICTATE.)

b. REVIEW AND EVALUATE OPERATION OF THE DoD SHELF-LIFE ITEM MANAGEMENT PROGRAM. (INITIALLY AS DEMONSTRATED IN CHAPTER II, PARAGRAPH I AND THROUGHOUT CHAPTER III OF THIS REPORT; SUBSEQUENTLY, AS EXPERIENCE AND MANAGEMENT NEEDS DICTATE.)

c. PREPARE AND SUBMIT A DoD SHELF-LIFE ITEM MANAGEMENT PROGRAM EVALUATION REPORT TO THE DIRECTOR FOR SUPPLY MANAGEMENT POLICY, OFFICE OF THE ASD(MRA&L). (INITIALLY, DISPLAYING DATA SIMILAR TO THAT SHOWN IN TABLES II-1 THROUGH II-5 AND III-1 THROUGH III-5 OF THIS REPORT, ACCOMPANIED BY NARRATIVE EVALUATIONS; SUBSEQUENTLY, AS EXPERIENCE AND MANAGEMENT NEEDS DICTATE, SHOWING TRENDS AND HIGHLIGHTING SPECIFIC COMMODITY AND/OR ORGANIZATIONAL EVALUATIONS.)

d. MAINTAIN DoD MANUAL 4140.27-M, THE SHELF-LIFE ITEM MANAGEMENT MANUAL.

e. RECOMMEND NEW OR MODIFIED DoD SHELF-LIFE ITEM MANAGEMENT POLICIES AND PROCEDURES TO THE DIRECTOR FOR SUPPLY MANAGEMENT POLICY, OFFICE OF THE ASD(MRA&L).

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