

# **CDC 2S051**

## **Materiel Management Journeyman**

### **Volume 4. Warehouse Operations and Asset Management Systems**



**Air Force Career Development Academy  
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CONGRATULATIONS! You are on the final volume for this career development course (CDC), and well on your way toward upgrade training to the five skill level!

Unit 1 begins with the receiving process and return operations. Inspector responsibilities are also covered in this unit.

Unit 2 gives you a look at the various tasks that are completed by storage and distribution. You'll learn how to store property in a warehouse. Throughout you'll also learn all about practicing safety in the warehouse.

Unit 3 covers hazardous material, miscellaneous commodities, and the special requirements associated with them.

Unit 4 covers inventory concepts and procedures from preparing and conducting them to processing discrepancies and adjustments.

In unit 5, you'll learn about bench stock establishment and bench stock review. You'll also learn about materiel handling principles and threat reduction assets.

Unit 6 introduces Asset Management and discusses how this system interfaces with the Materiel Management System.

This volume wraps up your CDC requirements necessary for upgrade training, and together with the previous volumes, you should have a solid overall understanding of the critical nature of your career field.

A glossary is included for your use.

Code numbers on figures are for preparing agency identification only.

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This volume is valued at hours and points.

**NOTE:**

In this volume, the subject matter is divided into self-contained units. A unit menu begins each unit, identifying the lesson headings and numbers. After reading the unit menu page and unit introduction, study the section, answer the self-test questions, and compare your answers with those given at the end of the unit. Then complete the unit review exercises.

To access supplemental instructional video content of materiel management procedures, please click on the below link to access the Materiel Management YouTube channel.

[https://www.youtube.com/channel/UCKciuHtUyXj1J5eGBMC1f8w/videos?disable\\_polymer=1](https://www.youtube.com/channel/UCKciuHtUyXj1J5eGBMC1f8w/videos?disable_polymer=1)



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# Unit 1. Receiving Operations and Inspector Responsibilities

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**T**HOUSANDS OF ITEMS ARE PROCESSED through the Materiel Management System daily. Because of this, prompt and accurate processing of receipts is extremely important to having an effective and efficient operation. Some of the procedures used to receive and process property into supply are identified within this unit.

## 1–1. Receiving and Return Operations

The receiving function is tasked with receiving and processing inbound shipments and on-base turn-in (TIN) into the logistics readiness squadron (LRS). Some important aspects of this responsibility include off-loading, segregating, and receiving property; and processing receipt and return transactions.

### 601. Receiving process

The receiving operation is the process to accept the property from the carrier. Whether property arrives via a 40-foot trailer/truck or an express carrier, ensure a spotter is available to help the driver to back into position. Once the vehicle is at the dock, chock the wheels to ensure it does not move forward while you are off-loading it. After the vehicle is secured safely at the dock, off-loading procedures can begin. During off-loading, there are four things you need to check:

- Bill of lading.
- Shipping label.
- Transportation control number (TCN).
- Obvious damage.

After off-loading the property into the receiving area, the asset needs to be placed in a holding location until a due-out release (DOR), notice to stock, or reject notice is processed. In deciding where to hold the property, consider the size, weight, priority, and special handling requirements of each item received.

All packages need to be in-checked at the time of receipt. Sealed containers with the proper information needed on the outer container does not require opening. However, if a package is received that is not properly tagged, labeled or even damaged, open the package and have it inspected, counted, and appropriately tagged or labeled. Consolidated shipments also require opening. Most of these shipments will have a packing list envelope on the outer container containing all the documents needed for processing its contents.

### 602. Processing consumable and expendable returns

The Air Force (AF) supports the Department of Defense (DOD) belief that all government materiel should be fully used and if possible, reused when effective, economical, and safe. This particularly holds true for consumable and expendable (XB3) assets, which can be expensive and contribute to

mission accomplishment. Although activities or work centers may no longer need certain XB3 assets, these materials should never be thrown away. Work centers may need them in the future, or other activities may have a need for them.

All XB3 items, serviceable or unserviceable, having potential use or resale value, will be collected, retained, and returned into the LRS. The LRS will reissue, redistribute, reuse, or transfer items to disposal as scrap. The only trash items can be thrown away or otherwise disposed of. Trash items are those items that are useless because of their present condition or because of the value of the materials they are made of. Examples include: used gaskets, seals, and broken plastic items.

### In-checking and inspecting

The receiving function in-checks XB3 TINs using the property and condition tags. Once the property is in-checked, the in-checker prepares the TIN documentation on an AF Form 2005, Issue/Turn-in Request (fig. 1-1). The AF Form 2005 is forwarded with the property to the materiel management inspector for verification action. The inspector works closely with the in-checker to ensure the item is correctly identified and the appropriate condition tags or labels are used on the assets.

AF Form 2005, 20080826, V4

PREVIOUS EDITION WILL BE USED.

Figure 1-1. Sample AF Form 2005 (Routine Item Turn-in document).

### Processing return

The AF Form 2005 is filled out in three copies. The required entries are:

Print Position	Field
1-3	Transaction identification code (TRIC).
4-6	Tote box/hold bay.
7	Disposal authority or shipment exception code (SEX).
8-22	Stock number.
23-24	Unit of issue.
25-29	Quantity being turned in.
30	Activity code of the TIN document (R for routine TINs and B for bench stock TINs).
31-33	Organization code.
34-35	Organization shop code.
36-39	Julian date.

Print Position	Field
40–43	Serial number.
44	Supply condition code (assigned by an inspector).
45–50	Work order code (This must be filled in for civil engineering (CE) and vehicle maintenance items).
51	Transaction exception (TEX) code.
52	Credit code (N, Y, or blank)
55–56	System designator (01).
62	Action taken code (assigned by an Inspector).
67–80	Mark for data.

The in-checker signs and dates block A of the AF Form 2005, and the inspector signs (or stamps) and dates block B.

In-checkers use document numbers from the activity code R block of serial numbers to complete the TIN documentation.

### Found-on-base

Air Force Instruction (AFI) 23–111, *Management of Government Property in Possession of the Air Force*, states, “all military and civilian personnel operate and maintain government systems, equipment, supplies, and real property in the best possible condition, in constant readiness, and in the absolute minimum quantities necessary to accomplish assigned tasks.” It requires all property found on that installation and not accounted for to be promptly recorded on the appropriate records of accountability.

Inspectors are the focal point for processing all property found-on-base (FOB). The required actions for FOB TINs are determined by their expendability, recoverability, reparability, cost designator (ERRCD). Procedures for processing FOB TINs for each ERRCD designator are contained in the following table:

ERRCD	FOB TIN Procedures
NF/ND	If ownership of the equipment item can be determined, normal equipment processing procedures are used. If ownership <i>cannot</i> be determined, the property is delivered to the LRS for processing. Process a TIN with a plus (+) in the TEX code field to account for the item.
XF/XD	Recoverable items are delivered to the LRS for research and processing. When ownership of FOB property can be determined, return the property to the organization. If the organization no longer requires the item, and it is not on that organization's accountable record, process a TIN with a plus (+) in the TEX code field to account for the item. If ownership cannot be determined, process a special inventory interrogation (1GP) and coordinate actions to perform an inventory adjustment to account for assets.
XB3	Serviceable XB3 items are delivered to the receiving function for normal TIN processing.

## Self-Test Questions

After you complete these questions, you may check your answers at the end of the unit.

### 601. Receiving process

1. When a truck arrives at the receiving section, why should a spotter be available?
2. What four things need to be checked when off-loading property?

**602. Processing consumable and expendable returns**

1. When are XB3 items turned in to the LRS?
2. What form is used to process a turn-in (TIN) request?
3. What does AFI 23-111 say about property found-on-base (FOB)?
4. What TEX code is used to process an NF/ND equipment turn-in (TIN) found-on-base (FOB) when ownership cannot be determined?

**1-2. Materiel Management Inspector Responsibilities**

As a materiel management inspector, your job is to ensure the items received and stored in the LRS are properly identified and ready for issue. Scheduling and maintaining an aggressive surveillance inspection program will help control deterioration and corrosion of items in storage. Property that has been incorrectly identified or its condition has changed will require further processing.

**603. Inspectors**

Chief inspectors within the LRS materiel management activity are responsible for identifying, monitoring, testing, protecting, and preserving warehouse stock. When applicable, chief inspectors can authorize unit personnel to perform some duties designated as inspection functions. Below are responsibilities for chief inspectors, and the limited inspectors they appoint.

**Chief inspector**

Inspection operations include verifying identity, security classification, condition (as certified by maintenance inspectors), status, markings, tagging, and labeling of property at AF activities in accordance with (IAW) Department of Defense manual (DODM) 4140.01, *DOD Supply Chain Materiel Management Procedures*, and Air Force Joint Manual (AFJMAN) 23-210, *Joint Services Manual (JSM) for Storage and Materials Handling*.

**Chief inspector responsibilities**

The logistics readiness squadron commander/accountable officer will appoint in writing an individual as chief inspector to oversee the care-of-supplies-in-storage (COSIS) program IAW Air Force Manual (AFMAN) 23-125(IP), *Stock Readiness*. This includes all inspection functions within the deployment and distribution flight. Chief inspectors are responsible for identifying, monitoring, testing, protecting, and preserving warehouse stock for the LRS CC/AO and will conduct an overall COSIS inspection for each warehouse, annually.

The minimum basic requirements considered essential for an individual to adequately perform duties and responsibilities of a materiel management inspector are:

- Have functional knowledge with the use of technical orders (TO), stock lists, parts catalogs, and specifications to determine the completeness and/or condition of an item.
- Have a working knowledge of the applicable accounting systems used at the activity where the inspector is assigned to assure the proper processing of condition/identity changes.
- Know who the functional inspector is for specialized areas such as: fuels/lubes, lumber, munitions, weapons, small arms, preservation and packing, etc.

**NOTE:** Inspection programs and inspector qualifications for munitions inspectors will be IAW AFI 21-201, *Munitions Management*, and TO 11A-1-10, *Air Force Munitions Surveillance Program and Serviceability Procedures*.

### **Limited inspector**

A chief inspector can authorize personnel to perform limited inspector duties designated as inspection functions. The limited authority must be identified in writing by the chief inspector. Inspection duties are decentralized to various asset management functions within the LRS requiring inspection actions.

### **Authorized inspection functions**

The materiel management inspector is a person authorized to perform the following inspection functions:

- Establish and maintain the final identification and classification of all property received, stored, issued, or shipped.
- Identify property known or suspected to be damaged or to have deteriorated or corroded during use, storage, or shipment.
- Ensure that reinspection dates prescribed by TOs are properly computed and entered on the applicable tags or labels or are included on the marking used in lieu of such tags and labels to identify property received, stored, issued, and/or shipped by a supply activity.
- Accept or reject property received on local purchase orders or contracts requiring inspection and/or acceptance at destination.
- Ensure documentation accompanies all property received, stored, issued, and shipped by a materiel management activity, and directed condemned property when such action is prescribed by directives of higher authority.
- Establish and maintain inspection controls on materiel within the technical order compliance (TOC) category to ensure that inspection dates will permit the availability of serviceable stock. Note: When condition status is in question or when the serviceable tag has been lost, defaced, or obliterated and not chargeable to the originator of the shipment, the logistics inspector/personnel must process the assets through authorized maintenance personnel to be bench checked to determine final condition. Under no circumstance will logistic inspectors/personnel sign documentation attesting the property condition when its status is questionable.

## **604. Inspecting and tagging property**

Materiel management inspectors are the only people in the LRS authorized to determine the identity, condition, and status of property for the supply account. Inspectors also ensure the proper tags, labels, and markings are attached to the property to reflect their proper identity and condition.

### **Determining property identity**

This is the recognition, classification, or association of an item with its next higher assembly. An item's identity includes three things:

- Reference number (part number).

- Stock number.
- Item description (nomenclature).

As an inspector, you will establish and maintain final identification and classification of all property received, stored, issued, and shipped. The primary means of accomplishing this is with the Web Federal Logistics Information Service (WebFLIS). WebFLIS is the most widely used method for determining an item's identity. It involves cross-referencing manufacturers' part numbers to national stock numbers (NSN) and NSNs to manufacturers' part numbers.

### Determining property condition

The condition is determined based upon an item's physical state (serviceable, unserviceable, or suspended). The physical state reveals how useful the item will be in carrying out its designed or intended purpose. In difficult cases, where you cannot reach a decision on an item's condition based on supply data, request the help of a maintenance inspector who has the authority to decide the final condition of property received or stored by the LRS.

### Status

Status determines the use of an item for its intended purpose in its present state. Can the item be used in its present design for the purpose it was intended, or will it require an alteration or modification before it can be used? The status of an item is any item characteristic not covered by condition or identity (e.g., price, shelf life code, and the ERRCD).

### Preparing condition tags and labels

Once you have determined the identity, condition, and status of an item, confirm that the appropriate condition tags or labels are used to mark the item. The Department of Defense (DD) Form 1570 (Program Change Request) series tags—1574, Serviceable Tag - Materiel, 1575, Suspended Tag - Materiel, 1576, Test/Modification Tag-Materiel, and 1577, Unserviceable (Condemned) Tag - Materiel—are used to ensure each item is properly identified before issuance or storage. Each tag in the series has a different color and identifies a different condition—serviceable, unserviceable, or suspended. Two other documents you should be familiar with are the DD Form 2477, Shelf-Life Extension Notice, and Air Force Technical Order (AFTO) Form 350, Repairable Item Processing Tag.

### DD Form 1570 series tags

The following table describes the different colors and conditions for each tag in this series:

Condition Tag	Tag Name/Title	Tag Color	Serviceability of Property
1574 and 1574-1	Serviceable Tag/ Label	Yellow	Serviceable materiel—new, used, repaired, or reconditioned.
1575 and 1575-1	Suspended Tag/Label	Brown	Suspended materiel.
1576 and 1576-1	Test Modification Tag/Label	Blue	Serviceable materiel that requires testing, alteration, modification, conversion, or disassembly before issue or shipment.
1577 and 1577-1	Unserviceable (Condemned) Tag/Label	Red	Materiel that is unserviceable and uneconomical to repair (condemned).
1577-2 and 1577-3	Unserviceable (Reparable) Tag/Label	Green	Unserviceable items that can be economically repaired and restored for use (reparable).

Figure 1-2 shows a completed DD Form 1577 with all the required entries. Take a few seconds to look it over.



**DD Form 2477**

The DD Form 2477 is used with DD Form 1574 or 1575 to update inspection data resulting from a re-inspection or test.

**AFTO Form 350**

An AFTO Form 350 is shown in figure 1-3. Use it with the DD Form 1577-2 or 1577-3 label. Any item turned in to the receiving function using an AFTO Form 350 must also have a completed DD Form 1577-2 attached. The AFTO Form 350 is normally attached to the outside of the container when the item is packaged, boxed, or crated for return to the repair activity.

The image shows a sample DD Form 1577, which is an inventory tag. It is a red-bordered form with a yellow background. The form is divided into several sections. A large diagonal watermark reading 'SAMPLE' is overlaid on the form. Eight numbered callouts point to specific fields:

- 1. PART NUMBER: Points to the 'P/N 84-11-MN' field.
- 2. STOCK NUMBER: Points to the '7430 00 634 5062' field.
- 3. ITEM DESCRIPTION: Points to the 'Typewriter 15 IN.' field.
- 4. INSPECTION ACTIVITY: Points to the 'AFB 3059' field.
- 5. CONDITION CODE: Points to the 'H' field.
- 6. UNIT OF ISSUE: Points to the 'EA' field.
- 7. QUANTITY: Points to the '1' field.
- 8. INSPECTOR'S NAME OR STAMP AND DATE: Points to the 'INSP. #5' field.

The form contains the following text:

**WARNING:** Unauthorized persons removing, defacing, or destroying this tag may be subject to a fine of not more than \$1,000 or imprisonment for not more than one year or both (18 USC 1361)

FSN, PART NO. AND ITEM DESCRIPTION  
7430 00 634 5062  
P/N 84-11-MN  
Typewriter 15 IN.

SERIAL NUMBER/LOT NUMBER  
74B-1131SN5

UNIT OF ISSUE  
EA

QUANTITY  
1

REMARKS

UNSERVICEABLE (CONDEMNED) TAG-MATERIEL

INSPECTION ACTIVITY  
AFB 3059

CONDITION CODE  
H

INSPECTOR'S NAME OR STAMP AND DATE  
INSP. #5  
DATE

DD FORM 1577 1 OCT 66  
SN 0102-LF-016-8800

96L13A04

Figure 1-2. Sample DD Form 1577.


AFTO FORM 350 JAN 93				PREVIOUS EDITION WILL BE USED	
REPARABLE ITEM				OMB NO. 0704-0188 PROCESSING TAG	
<p>Public reporting burden for this collection of information is estimated to average 10 minutes per response including the time for reviewing instructions, searching existing data source, gathering and maintaining the data needed, completing and reviewing the collection of information. Send comments regarding this burden estimate to any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 120, Arlington, VA 22202-4302, and the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, D.C. 20503. Please DO NOT RETURN your form/questionnaire to either of these addresses. Send your completed form/questionnaire to: Prime Weapon System/End item AKC Materiel Utilization and Control Office (MUCO).</p>					
1. JOB CONTROL NO. <b>6453208</b>		2. ID/SERIAL NO.		3. TM	3A. SRD <b>ATF</b>
4. WHEN DISC <b>F</b>		5. HOW MAL		5. MDS	7. WORK UNIT CODE <b>11000</b>
8. ITEM OPER TIME		9. QTY <b>1</b>		10. FSC <b>1680</b>	
11. PART/LOT NUMBER		12. SERIAL NUMBER			
13. SUPPLY DOCUMENT NUMBER <b>X113HS20640015</b>		14. DISCREPANCY			
15. SHOP USE ONLY					
15A. DMC/ACT ID		15B. SHOP ACTION TAKEN			
TAG NO.		<b>877508</b>		AFTO 350 PT. 1	
16. SUPPLY DOCUMENT NUMBER <b>X113HS20640015</b>		17. NOMENCLATURE <b>Generator</b>			
18. PART NUMBER		18A. WORK UNIT CODE <b>11000</b>			
19. NSK					
20. ACTION TAKEN		21. QTY <b>1</b>		22. RPC USE ONLY <b>RPC</b>	
TAG NUMBER		<b>877508</b>		AFTO 350 PT. 2	

Figure 1-3. AFTO Form 350.

Do not remove condition tags from the property. The materiel management inspector will remove, replace, or destroy authorized tags and labels when and if necessary.

### Correlating condition codes to condition tags

Condition codes are used to describe the condition of an item further. The condition codes that may be used for each 1570 series tag are:

Condition Tag	Condition Code	Property Description
1574	A	Serviceable property with a shelf life of more than six months.
	B	Serviceable property with a shelf life of three to six months. Issue these items before issuing property with condition code A.
	C	Serviceable property with a shelf life of less than three months. Issue these items before issuing property with condition codes A or B.
1575	J	Property in stock suspended from issue pending condition classification or analysis where the true condition is unknown.
	K	Property suspended/returned by the customer or user, awaiting condition classification
	L	Property suspended/litigation, held pending litigation or negotiation with contractors.
	Q	Quality deficiency report/materiel deficiency report (QDR/MDR). Applies to stock held as MDR or QDR exhibits, pending disposition instructions.
1576	D	Serviceable property that requires tests, alteration, modification, conversion, or disassembly. Does not include items that must be inspected or tested immediately before issue.
1577-1	H	Condemned or unusable property that should not be issued; it must be sent to Defense Logistics Agency Disposition Services (DLADS).
1577-2 1577-3	E, F, G	Unserviceable property that can be economically repaired or restored before issue. Condition code G items will include the reason for repair plus a complete list of items needed to restore the property to serviceable condition.
	W	Materiel under contract warranty that requires repair, overhaul, reconditioning, or replacement. Includes reparable items, which are radioactively contaminated. Unserviceable assets, which are still under warranty.

### 605. Processing condition and identity changes

The two types of change documents that may be initiated by an inspector are the condition changes (TRIC FCC) and identity changes (TRIC FCH). We will cover the purpose of these changes and the inputs you need to process them. Also included at the end of this lesson are procedures for handling organizational refusals.

#### Processing condition changes

Condition changes (TRIC FCC inputs) are necessary whenever property deteriorates or becomes damaged in storage. Changes can also be processed because of official directives, such as the TO 00-20K series, or when the condition tags on property are found to be in error. Storage and inventory personnel must notify the inspector whenever they suspect that items in storage are incorrect.

If you receive notification of a suspected condition error, check the condition of the property and then process an inquiry to find out the item's record balance. By checking both the serviceable and unserviceable balance on the inquiry, you can determine if a condition change input is required or not.

Processing a condition change input (TRIC FCC) will update internal records and output a condition change document, DD Form 1348-1A, Issue Release/Receipt Document. The output will vary according to the final condition of the item. If the item is unserviceable, but reparable, the document will require the item to be put in the unserviceable hold area until disposition can be made for it. If the item is condemned, the document will be followed by a transfer document to send the item to the DLADS.

If directed by the output document, the storage representative will relocate the property, enter the new warehouse location, and sign the DD Form 1348-1A. After reviewing the condition change for completion and accuracy, you will stamp or sign the document in the inspector's block and enter the reason for the condition change on the document. Figure 1-4 shows an example of an output TRIC FCC document for which the nonextendable shelf life of six items has expired. If needed, you can use the reverse side of the form for additional room for the explanation. After stamping or signing, and entering the reason for the change on the document, forward copy one to the document control section for filing.

DIC M UI S SUP SFC PRJ AC OCM UNIT:2. SHIP FROM 3. SHIP TO	
RIC & QTY E ADR I PR RI 70G PRICE:	
FCC S EA 6 R G DIS AH RDD PNT 54: 1. TOT PRICE 4. MARK FOR	
24. DOC NBR & SUFFIX	
ZOO4NS71050001	
25. STOCK NBR	
WHSE LOC:01H008N006	
5330009839878	
26. RIC, UI, QTY, COND, COG,	
END BAL: 15	
OC NBE: R920RW71050034	
**INSPECTION COND CHANGE **	
27. ADDITION	
NON-EXTENDABLE SHELF LIFE EXPIRED.	
NEW WHSE LOC:	
WHSE/SIGN-DATE:	
9710500589 97105/1233	
INPUT DEVICE 01523 OUTPUT DEVICE 01523	
INSPECTOR: 7105	
DD FORM 1348-1A, JUL 91 ISSUE/RECEIPT DOCUMENT (FACSIMILE)	

Figure 1-4. Sample FCC DD Form 1348-1A.

### Processing identity changes

To correct an identification error on a serviceable item in storage requires an identity change (TRIC FCH) input. This adjustment appears separately on the consolidated inventory adjustment document register (M10). Identity change inputs can be used for the following purposes:

- To correct identification discrepancies on serviceable items in storage when the error is the fault of the manufacturer.
- To correct identification discrepancies of items on detail records when the manufacturer caused the misidentification.
- To reidentify recapped tires with a different tread.

For any purpose other than listed above, you will have to prepare a special inventory request (1GP). Identification discrepancies not caused by manufacturer error (i.e., wrong identification plate) are corrected by record reversal if possible. The final decision of whether or not an FCH is appropriate for correcting the discrepancy belongs to the inspector.

Once you've verified that an item requires an identity change, your next step is to determine the correct identity of the misidentified item. Retag the item to reflect the correct stock number, part number, nomenclature, etc. Verify the identity of like items in the same location and segregate those misidentified from those correctly identified. Finally, process an FCH input and forward the change document to the storage section.

Like the FCC document, you must write the reason for the change on the document and stamp or sign and date it in the appropriate block (fig. 1-5). For FCH documents, the certifying official is required

**Figure 1–5. Sample DD Form 1348–1A (FCH).**

An organizational refusal occurs any time a customer refuses to accept an item that was issued or shipped to the organization. The person refusing the property (the custodian or alternate for equipment items) must annotate all copies of the issue/due-out release (ISU/DOR) document with the phrase “organization refusal,” along with a brief explanation for refusing the property, and sign the document. As an inspector, you must decide who has primary responsibility for the refusal (the customer or the LRS). Do this by inspecting the item and reviewing the reason for refusal. The LRS is responsible if the property was misidentified, unserviceable, an unsuitable substitute, or if the quantity issued was in excess of what the customer ordered.

However, the customer is responsible if the wrong item was ordered, or if the item was shipped due to his or her failure to cancel the due-out. If the LRS was primarily responsible for the refusal and the ERRCD code is XB or NF/ND, the accountable officer (AO) has the option to process a credit TIN or record reversal, whichever is the most economical to the account. In all cases, coordinate with the organization that refused the property to determine if it still has a valid requirement. If so, contact the applicable call-in point to reestablish the ISU/DOR for the correct assets.

The inspector schedules and accomplishes an aggressive surveillance inspection program for all items in storage. The purpose of the inspection is to ensure the property is ready for issue and that deterioration and corrosion are controlled.

The care and preservation of supplies in storage is important to everyone. If an aircraft is sitting on a runway waiting for a part from the LRS, and the part received is unserviceable, think of the man-hours lost because the property was not inspected for serviceability ahead of time. This is one reason an active surveillance program must be conducted on all storage facilities.



Periodic inspections are indispensable tools of management. Inspect your storage listings and programs daily to ensure all are in compliance. If your listings are incorrect, your programs are going to be useless. Make a schedule to include all warehouses and stockrooms in a thorough inspection program. You need to take the following specific actions:

- Inspect items assigned shelf life codes (dated items).
- Inspect, identify, and initiate requests for special inventory for items FOB.
- Inspect war consumables distribution objective (WCDO) items in storage.

Notify the storage section supervisor when you will be walking through checking items for serviceability. During unannounced walk-throughs, when a deficiency is noted, simply notify the supervisor in charge of the stockroom or warehouse.

If deficiencies are noted during a scheduled surveillance, write up these items, give a copy of the report to the inspected activity, and keep a copy. The inspected activity sends reports of corrective action back to the inspection section. A follow-up inspection is done within 10 days to ensure discrepancies were corrected or to establish an open item for tracking purposes.

### **General checklist**

While your surveillance checklist should be tailored to suit the needs of your inspection operation, here is an example of checklist items:

- Are good housekeeping policies being maintained? Is all trash being removed promptly and are all areas kept free of debris?
- During issue are the oldest items issued first and, while they are being stored, are the oldest items stored in front?
- Are all stored items in serviceable condition?
- Are unserviceable (reparable) materials afforded minimum protection to prevent further damage? Is the area in which they are stored separated from normal rotating stocks?
- Are all materials properly tagged?
- Are all stocked materials stored in an orderly manner?
- Are hazardous materials (HAZMAT) properly stored?
- Are items properly identified (e.g., shelf life, functional check, suspect, etc.)?
- Is an active corrosion control program in effect?

### **607. Processing supply discrepancy reports**

If you ordered something from a catalog and the item was damaged, would you just ignore the problem or report it to the company? Naturally, you would report any problem with the order and expect a replacement or credit. This is also true in the AF. If a base receives an item that is damaged, misidentified, or has any other problems, the base must report it to the source of supply for replacement or credit. In this case, a supply discrepancy report (SDR) would need to be submitted either through the Enterprise Solution-Supply (ES-S) system SDR function or the DOD Web-SDR system. These systems are the primary means to submit an SDR. If the ES-S SDR function or the DOD Web-SDR system is not available, a Standard Form (SF) 364, Report of Discrepancy (ROD) can be used.

The SDR serves two purposes:

- Notifies the shipping organization that a discrepancy exists.
- Is used as a supporting document for inventory accounting and financial adjustments.

## Preparing an SDR

In general, you must report shipping or packing discrepancies that are attributable to the shipper (that includes contractors, manufacturers, and vendors). However, not every discrepancy you come across needs to be reported. Some discrepancies require a \$100 minimum figure before reporting.

**NOTE:** The \$100 figure applies only to the value of the discrepant portion of the shipment and not necessarily to the total extended dollar value or the unit of issue. If the item is classified, you must submit an SDR regardless of the cost.

Some common discrepancies that require reporting are:

Discrepancy	Reporting Conditions/Remarks
Duplicate shipments	Report regardless of dollar value.
Incorrect items	Report incorrect or misidentified materiel or unacceptable substitutes regardless of dollar value.
Misdirected materiel	When improperly addressed and shipped to the wrong activity, regardless of value.
Misrepresented conditions	When the condition of an item, which exceeds \$100 per line item, is found to be other than that shown on the shipping document.
Overage or shortages	When valued in excess of \$100 per line item, except controlled items, which you will report regardless of dollar value.
Packing	To include improper packing, preservation, markings, and unitization discrepancies.
Product quality	For grant aid shipments, despite dollar value.
Supply documentation	When missing, incomplete, or improperly prepared, regardless of dollar value.
Technical data	Report missing or incomplete item technical data regardless of dollar value (e.g., name plates, handbooks, warranty data, specifications, manuals, technical reports, etc.).
Other	Not described above. The supply inspector makes the final determination of the requirement to submit a report of item discrepancy.

Do *not* report these activities:

- Discrepancies found while materiel is in storage.
- Discrepancies involving local base or station deliveries to or returns from internal or satellite locations.
- Discrepancies involving the shipments of privately owned vehicles.
- Discrepancies involving shipments on requisitions or purchase orders from personnel services activities that cite nonappropriated funds.
- Transportation-type discrepancies.
- Product quality deficiencies.
- Foreign military sales (FMS) and cooperative logistics materiel management support arrangements under the international logistics program.
- Shipping-type (item) discrepancies involving personal property shipments.

## Submit SDR

Submit SDRs as soon as possible, but no later than the following time standards:

- For shortages or overages of controlled items—report within 24 hours of discovery.
- All other discrepancies:
  - a) Contiguous United States (CONUS) destinations—60 calendar days from date of shipment.

- b) Overseas (United States government) destinations—120 calendar days from the date of shipment.

Time limits for reporting contractor warranties are prescribed in individual warranty clauses or contracts. These time limits override other time limits specified here.

### **Processing SDR response**

Action activities are required to reply to every SDR submitted within time limits specified in Defense Logistics Management Standards 4000.25 Volume 2, *Supply Standards and Procedures*, Chapter 17. Replies to an SDR will indicate the appropriate disposition, e.g., acknowledgement of the report, disposition of the materiel, validation of the report with authorization of financial adjustment, and/or instructions for repair or other types of corrective action. When the action activity has completed the information on the reverse side of the SDR, they will then indicate whether a billing adjustment will be issued. They will then forward the reply to the customer support element. After receiving a reply to an SDR, the customer service element will process a tracer action required (TAR) transaction with an action code R to update the date of last transaction (DOLT). Once the transaction is processed, the detail will no longer appear on the SDR listings, and it will remain in the computer until the proper billing input is processed by Defense Finance and Accounting Services (DFAS) personnel.

### **Maintaining SDR consolidated suspense file**

The reporting activity maintains a consolidated ES-S Web SDR reporting tool to serve as the control log on all SDRs submitted. If ES-S Web SDR is offline and an SF 364 is submitted, the SDR monitor will maintain a suspense file of all SDRs submitted using the SF 364.

Additionally, SDRs will remain in suspense until they are closed. An SDR is considered closed when:

- a) A reply is received or the SDR is categorized as unresolved.
- b) The shipment appears on an Integrated Logistics System–Supply (ILS-S) script providing shipment loss analysis.
- c) Part 3 of the M16, Shipment Loss Analysis Report, lists all shipments, which may be potential losses, confirmed losses, and recovered shipments. This part of the report can be used to remove RODs and SDRs from the file since they are no longer valid and should be canceled.

### **Processing SDR follow-ups**

If an action activity does not reply to an SDR within the prescribed timeframe, follow up action is required. Details requiring first follow-up action are those that appear on the list 55 days after the SDR was initially submitted. If necessary, send a second follow-up 85 days after the first follow-up. An SDR is defined as unresolved if a reply has not been received at 146 days. Forward all unresolved SDRs to your major command (MAJCOM) for assistance.

### **Processing incoming SDRs**

The customer support function is responsible for evaluating and controlling all incoming SDRs attributable to the LRS. Incoming SDRs should rarely occur since bases are primarily receiving rather than shipping activities. Additionally, most base level SDRs are considered “outgoing” SDRs, i.e., those sent to depot-level reparable (DLR), General Services Administration (GSA), commercial vendors, and other AF bases (lateral support).

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## **Self-Test Questions**

**After you complete these questions, you may check your answers at the end of the unit.**

### **603. Inspectors**

1. Who appoints in writing, an individual as chief inspector to oversee the COSIS program?



2. Who conducts an annual overall COSIS inspection for each warehouse?
3. What must be identified in writing by the chief inspector?
4. What inspection functions are performed by the materiel management inspector?

#### **604. Inspecting and tagging property**

1. What three received-property factors must be verified by the materiel management inspector?
2. An item's identity includes what three things?
3. What factor have you defined when you decide that an item can be used for its intended purpose without any alteration or modification?
4. What series tag is used to ensure each item is properly identified before issuance or storage?
5. What condition tags are used to identify unserviceable materiel that is uneconomical to repair (condemned)?
6. What condition does a green tag identify?
7. List the eight entries required on the DD Form 1570 series tag.
8. List the three condition codes that can be used with a DD Form 1574.

9. If an item is suspended from issue pending a condition classification, what condition tag and condition code is used to identify the item?
10. What condition code is used on a DD Form 1576 for serviceable property that requires test, alteration, modification, conversion, or disassembly?

#### **605. Processing condition and identity changes**

1. What circumstance requires processing a condition change input?
2. Which change input, transaction identification code (TRIC) is used to correct an identification error for serviceable items in storage?
3. Who is the certifying official that signs the FCH documents?

#### **606. Warehouse surveillance program**

1. What is the purpose of the surveillance inspection program?
2. How often should you inspect storage listings and programs for compliance?

#### **607. Processing supply discrepancy reports**

1. What are the two primary means used to submit a supply discrepancy report (SDR)?
2. Match the discrepancies in column A with the reporting responsibility in column B. Items in column B will be used more than once.

<i>Column A</i>	<i>Column B</i>
____ (1) Overages or shortages over \$100 per line item.	a. Discrepancies to be reported.
____ (2) Discrepancies found while materiel is in storage.	b. Discrepancies not to be reported.

- \_\_\_\_ (3) Discrepancies involving the shipment of privately owned vehicles.
  - \_\_\_\_ (4) When materiel, regardless of the value, is addressed and shipped to the wrong activity.
  - \_\_\_\_ (5) When incorrect materiel, unacceptable substitutes, or duplicate shipments are received, regardless of the dollar value.
  - \_\_\_\_ (6) Product quality deficiencies.
  - \_\_\_\_ (7) Transportation-type discrepancies.
  - \_\_\_\_ (8) When supply documentation is missing or improperly prepared, regardless of the dollar value.
3. What timeframe does the receiving activity have to submit the SDR?
4. When is an SDR considered closed?
5. What materiel management function evaluates and controls the incoming SDR program?
6. What are most base-level SDRs considered?

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## Answers to Self-Test Questions

### 601

1. To help the driver back the vehicle into position for off-loading.
2. (1) Bill of lading.  
(2) Shipping label.  
(3) Transportation control number (TCN).  
(4) Obvious damage.

### 602

1. When the XB3 serviceable or unserviceable items have potential use or resale value.
2. AF Form 2005.
3. It requires all property found on that installation and not accounted for to be promptly recorded on the appropriate records of accountability.
4. Plus sign (+).

### 603

1. LRS CC/AO.
2. Chief inspector.
3. Anyone authorized limited authority inspector duties.
4. Establish and maintain the final identification and classification of all property received, stored, issued, or shipped; identify property known or suspected to be damaged or to have deteriorated or corroded during use,

storage, or shipment; ensure that re-inspection dates prescribed by TOs are properly computed and entered on the applicable tags or labels, or are included on the marking used in lieu of such tags and labels, to identify property received, stored, issued, and/or shipped by a supply activity; accept or reject property received on local purchase orders or contracts requiring inspection and/or acceptance at destination; ensure documentation accompanies all property received, stored, issued, and shipped by a materiel management activity as well as directed condemned property, when such action is prescribed by directives of higher authority; and establish and maintain inspection controls on materiel within the technical order compliance (TOC) category to ensure that inspection dates will permit the availability of serviceable stock.

**604**

1. (1) Identity
- (2) Condition.
- (3) Status.
2. (1) Reference number (part number).
- (2) Stock number.
- (3) Item description (nomenclature).
3. Item status.
4. DD Form 1570 series.
5. DD Form 1577 and 1577-1.
6. Unserviceable items that can be economically repaired or restored for use (reparable).
7. (1) Part number.
- (2) Stock number.
- (3) Item description.
- (4) Inspection activity.
- (5) Condition code.
- (6) Unit of issue.
- (7) Quantity.
- (8) Inspector's name or stamp and date.
8. Condition codes A, B, and C.
9. DD Form 1575 with a condition code J.
10. D.

**605**

1. Whenever property deteriorates or becomes damaged in storage.
2. FCH.
3. The chief of the function making the change.

**606**

1. To ensure that property is ready for issue and that deterioration and corrosion are controlled.
2. Daily.

**607**

1. ES-S SDR function and the DOD Web SDR system.
2. (1) a.
- (2) b.
- (3) b.
- (4) a.
- (5) a.
- (6) b.

- (7) b.
- (8) a.
- 3.
  - (1) Within 24 hours of discovery for controlled items.
  - (2) Within 60 calendar days from date of shipment for CONUS destinations.
  - (3) Within 120 calendar days from date of shipment for overseas destinations.
- 4. When the SDR is categorized as unresolved; the shipment appears on an ILS-S script providing shipment loss analysis, or when Part 3 of the M16, Shipment Loss Analysis Report, lists all shipments, which may be potential losses, confirmed losses, and recovered shipments., .
- 5. The customer support function.
- 6. Outgoing SDRs.

**Complete the unit review exercises before going to the next unit.**

### Unit Review Exercises

**Note to Student:** Consider all choices carefully, select the *best* answer to each question, and *circle* the corresponding letter. When you have completed all unit review exercises, transfer your answers to the Field-Scoring Answer Sheet.

**Do not return your answer sheet to the Air Force Career Development Academy (AFCDA).**

**Please read the unit menu for unit 2 and continue ➔**

## Unit 2. Storage and Distribution

<b>2–1. Storage Facilities.....</b>	<b>2–1</b>
608. Types of storage facilities .....	2–1
609. Planning a warehouse layout .....	2–4
<b>2–2. Warehouse Locations .....</b>	<b>2–7</b>
610. Assigning, changing, and deleting stock locations .....	2–7
611. Validating warehouse locations .....	2–14
<b>2–3. Storage Principles and Products .....</b>	<b>2–18</b>
612. General storage techniques .....	2–18
613. Updating warehouse indicative data .....	2–21
614. Pulling property .....	2–24

**A**FTER PROCESSING RECEIPT OF PROPERTY, either move for delivery to the customer or to the storage area for safe keeping. To provide proper care for property in storage, you need to have a basic knowledge of storage facilities, warehouse locations, and general storage practices.

### 2–1. Storage Facilities

This section briefly covers some of the storage facilities you may work in as a materiel management journeyman and some of the factors that influence a storage layout plan.

#### 608. Types of storage facilities

There are two types of storage facilities—covered storage and open storage. Covered storage includes facilities such as general purpose, refrigerated, and flammable warehouses; and shed storage. Open storage is any uncovered space used for storage purposes.

##### **Covered storage**

Covered storage is any storage space within a roofed structure. It is AF policy to use all existing covered storage facilities to the maximum extent possible. Covered storage offers the best protection for items against adverse weather conditions. Within the covered storage category, a variety of structural types exists.

##### *General-purpose storage*

The general-purpose warehouse is the most common type of storage facility found in the AF. It is constructed with a roof, solid sides, and end walls. General-purpose warehouses are usually single-story buildings, but some are multistoried. They are used for storing a wide variety of items having optimum protection and can be either heated or unheated. To aid the movement of supplies and equipment, two main aisles run the length of the warehouse to allow MHE and supplies to move straight through the length of the building. Typically, the main aisles are connected by cross aisles. Warehouses of this type usually have truck-level loading docks with an overhead canopy. The loading platforms ensure the efficient handling of materiel as it is hauled to the various organizations throughout the base.

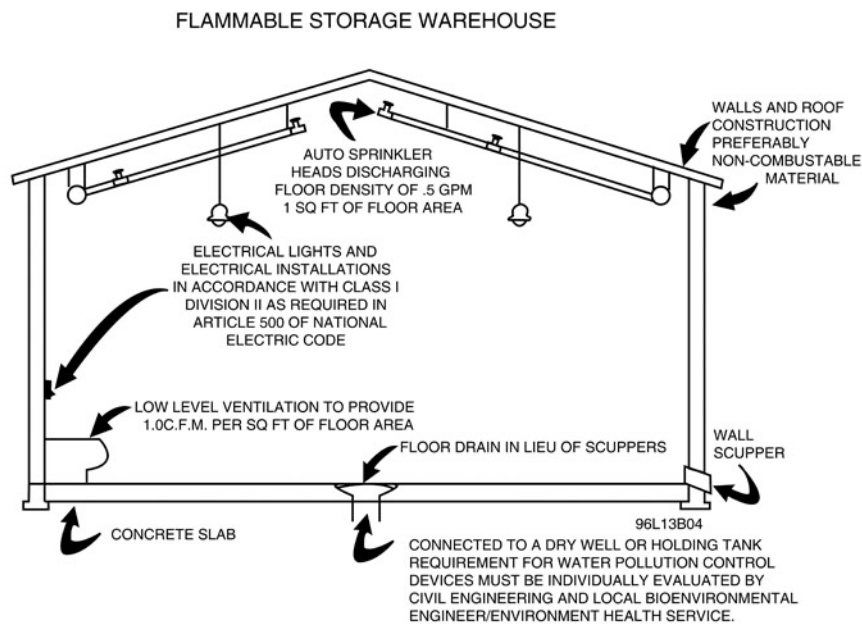
##### *Refrigerated warehouse*

Outwardly, the refrigerated storage warehouse resembles a general-purpose warehouse, although it's usually much smaller. Sometimes, a storage *area* will be used as a refrigerated stockroom instead of using a complete warehouse. The temperature is controlled between 32 and 50 degrees Fahrenheit (°F) (0 and 10 degrees Celsius [°C]) in the interior of a warehouse or stockroom designated as a refrigerated chill space. There are no main aisles running the length of a refrigerated storage area. Instead, cross aisles

provide access to truck docks and storage bins. Normally, refrigerated storage is used to store such perishable items as batteries and photographic film.

### *Flammable/hazardous materiel warehouse*

The flammable storage building is a single-story, detached facility of noncombustible fire resistant construction. Flammable storage buildings must be at least 50 feet from other facilities. It cannot have a basement or crawl space. This building will have low-level ventilation, using an exhaust ventilating system to prevent the accumulation of combustible vapors. An automatic sprinkler protection system provides additional safety. Buildings with floor drains or wall scuppers present, to expedite the removal of water discharged from sprinklers and hose streams, will have an appropriate dry well or holding tank connection. Walls should have a fire-resistance rating of at least four hours. Figure 2-1 shows an example of a flammable materiel storage warehouse.



**Figure 2-1. Flammable materiel warehouse.**

### *Shed storage*

A shed is a roofed structure with incomplete side and end walls. Most are considered permanent structures since they are not easily dismantled for relocation. However, some are transitory in that they are prefabricated structures that can be dismantled for movement and reassembly. The AF uses sheds for storing materiel that does not require complete protection from the weather.

### **Open storage**

Open storage areas are designed for storing items that do not require protection from the weather. There are two types of open storage areas—improved and unimproved.

### *Improved open storage*

This storage area (fig. 2-2) includes space that has been graded and surfaced with concrete, tar or asphalt, crushed stone or gravel, or another suitable surface material. Steel mat topping may be used, but it's the least desirable type of surface material. Property that is not readily susceptible to damage by adverse weather conditions can be stored in this type of storage area. Adequate drainage protects supplies from wet ground conditions and provides a running surface for operation of MHE.





Figure 2-2. Improved open storage.

Storage layouts for improved open areas can vary due to terrain features and the commodities being stored. In general, the aisles become roadways because the sizes of some items require MHE to be moved. A perimeter fence with a main gate serves as protection for the items stored and provides boundary limits that define the storage area. Some items that may be found in outside storage areas are 55-gallon drums, aircraft wings, and aerospace ground equipment.

#### *Unimproved open storage*

An unimproved area (fig. 2-3) is any open storage area that has not been surfaced. A significant disadvantage of this type of storage is in the limitation on the use of materiel handling equipment (MHE). Drainage from adverse weather conditions significantly reduces use of unimproved open areas. Storage managers must be very selective of the type of items designated for this type of storage. Use unimproved open areas as a last resort; and use them *only* when open improved storage space is unavailable. When unimproved open storage is used, position supplies along aisles or roadways, without much regard to conventional storage practices, to take advantage of existing drainage. These areas, while not commonly used on AF installations, may be used under bare base exercise or warfare conditions.

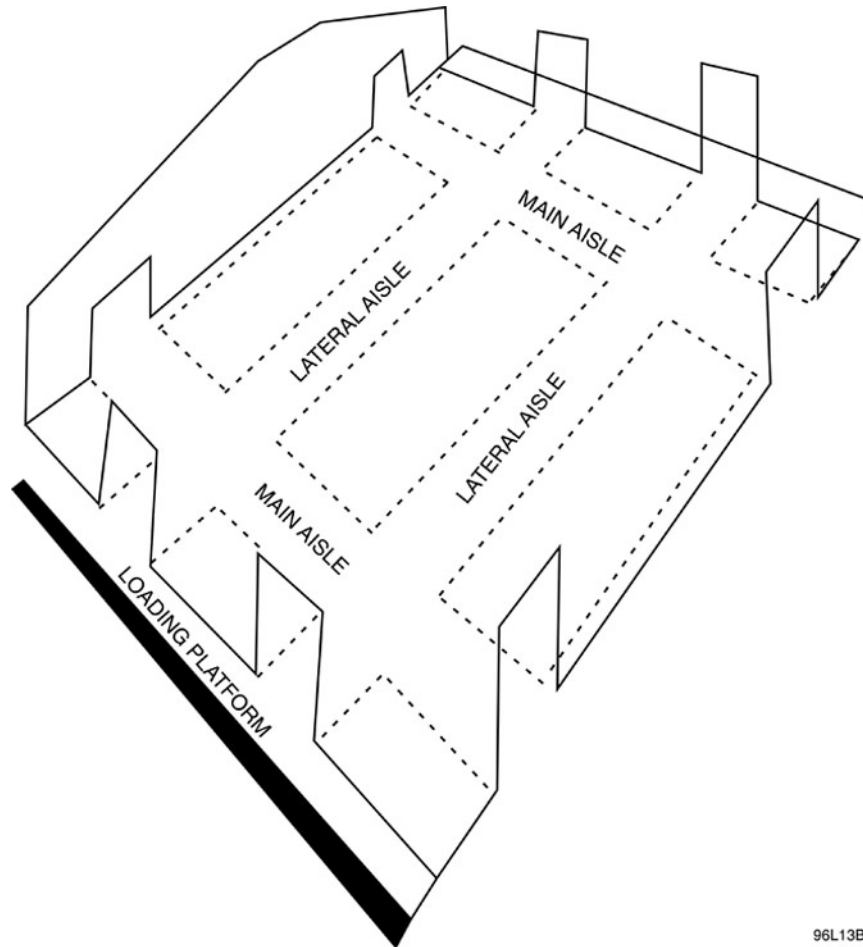


Figure 2-3. Unimproved open storage.

## 609. Planning a warehouse layout

Storage space is the basic resource in any materiel management and distribution operation. With proper planning, you can make effective use of this space and provide for efficient warehouse operations.

Some things you will need to consider in planning a storage layout are aisle positioning, working/nonstorage areas, allowable floor loads, sprinkler systems, and the available MHEs used to move property. Also, consider the size of the warehouse, number of stockrooms, and number of bins or pallets that will hold the property. Other considerations are the number and size of warehouse doors and the location of lights, lighting circuits, and switches. Figure 2-4 is an example of a stockroom storage area. In this lesson, you will learn some of the factors to consider in planning a storage layout.



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Figure 2-4. Stockroom storage area.

### Aisle layout

Aisle layout is determined by the structure of a warehouse; quantity, nature, and popularity of materiel stored; and types and capacity of MHE available for use. Aisles should only be wide enough to provide maneuvering room for the equipment used in moving property. When practical, aisles should lead directly to doorways. Judiciously apply aisle placement. When the placement of an aisle results in considerable loss of space or is otherwise inefficient, the benefit of the less desirable layout must be balanced against its impact on storage operations. A particularly important factor in aisle placement is the location of structural columns. Space lost due to columns can be reduced if columns are used as aisle and bay boundaries.

### Work areas

Working areas are nonstorage areas that include: receiving and distribution bays, property inspection, floor space, vehicle parking areas, offices, and break rooms. Because such space reduces actual storage area, they should be held to a minimum. Working areas are normally located in those portions of a warehouse that have the lowest ceilings. Offices and break rooms are usually located in the center section of the building or against a sidewall, so they don't interrupt work in storage areas. These areas should be located to minimize the time required for personnel and equipment to travel between storage locations and working areas. No set rules are established for the allocation of space for working areas, but it's essential to keep these spaces to a minimum to increase storage efficiency and space utilization.

### Effective utilization

How storage areas will be used must be planned before the actual start of the storage operation to ensure the floor and cubic capacity of the warehouse will be used to the greatest extent possible (i.e., with large lots in large areas, medium lots in medium areas, and small lots in end zones or other short storage areas). Plan storage so all stored materiel faces an aisle. When this manner of storage is used, a warehouse can hold a greater quantity of materiel and the property will be readily accessible for issue and inventory. After all, space is the basic resource of storage, so it must be used wisely.

### Item similarity

Store items with similar handling requirements together when practicable. This facilitates the storage and issue of items and contributes to effective storage care. Normally, there is no requirement to segregate materiel by stock class or group.

### Item popularity

Activity or popularity is an important factor in planning a storage layout for materiel. Store fast-moving items of great demand in locations where they are easily accessible needing as little handling as necessary and slow-moving items in less convenient locations. To the extent feasible, plan the placement of items with the slowest turnover rate in areas progressively farther from active stock processing areas. Store bulky heavy items near doors, gates, or aisles that lead directly to issuing, shipping, and receiving areas. An example of the popularity concept is shown in figure 2-5.

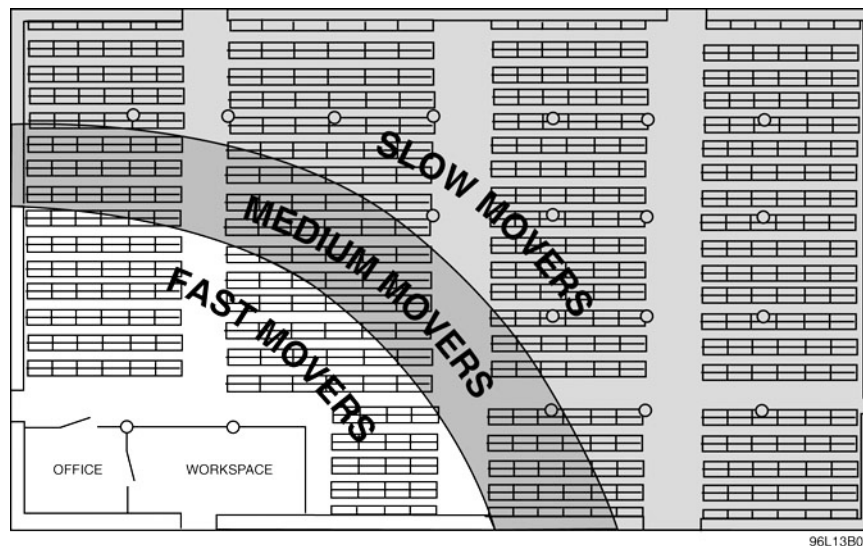


Figure 2-5. Storage layout using item popularity.

**Item size and weight**

The dimensions and weight of individual items affect not only the amount of storage space allotted, but also the location in which items are to be stored. For example, store an aircraft wing element in a location that would provide a balance between accessibility to required MHE and the least amount of intrastorage transport. The density of an item requires it be stored in an area that provides ample support plus accessibility.

**Item quantity**

The quantity of materiel on hand affects the amount of space required on the layout. It frequently may be desirable to increase the amount of space allocated to an item in a single location to eliminate overflow into another item's location. This reduces effort and personnel travel time when replenishing stock locations. It also reduces constant relocating of items and assignment of new locations on computer records.

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**Self-Test Questions**

After you complete these questions, you may check your answers at the end of the unit.

**608. Types of storage facilities**

1. Define covered storage.
2. What is the most common warehouse facility found throughout the AF?
3. What is the temperature range of a refrigerated chill space in a storage warehouse?
4. Define an open storage area.
5. What are the two types of open storage areas?
6. What serves to define and protect an open storage area?

**609. Planning a warehouse layout**

1. What is the basic resource of any materiel management distribution operation?
2. What factor is particularly important in planning aisle placement in a warehouse?

3. What type of warehouse area should be kept to a minimum to increase storage efficiency and space utilization?
4. When items with similar handling requirements are stored together, what storage factor is being observed?
5. What storage factor encourages slower moving items to be placed farther away from active stock processing areas?

## 2-2. Warehouse Locations

The warehouse location system allows you to pinpoint the exact location of any item in your warehouse inventory. By understanding a simple warehouse location code, you can easily locate where each item is stored.

### 610. Assigning, changing, and deleting stock locations

Each warehouse location is identified using an alphanumeric 10- or 11-position code (no fewer than 10 positions and no more than 11). This position code is arranged in a set number-letter sequence to distinguish one location from another. For example, look at location 01A002B003C.

Breakdown of warehouse location 01A002B003C					
01	A	002	B	003	C
Warehouse or Lot	Stock room or Storage block	Bin row	Storage level	Individual bin	Bin subdivision

Each part of the warehouse location code refers to an element of the storage area. These elements and their code breakdowns are described below:

#### Warehouse

The first part of the warehouse location code is the warehouse. All warehouses are identified with a two-position number. Warehouse number 1 will, for example, be shown and called warehouse 01. Warehouse 15 will be shown as 15. An example of a warehouse numerical breakdown appears in figure 2-6.

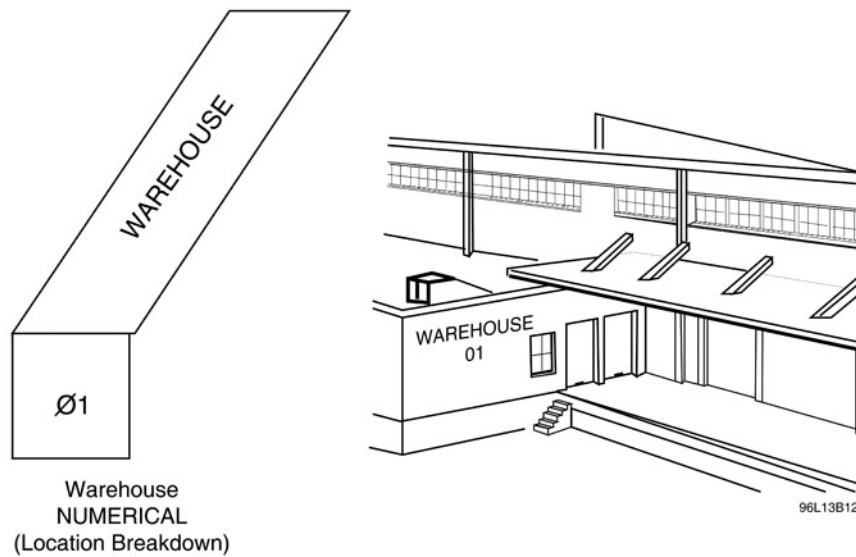


Figure 2-6. Warehouse (numerical) location breakdown.

### Storage lot

In an open storage area, the term *storage lot* is used to describe a large storage area. When the location refers to an open-storage location, a storage lot is identified in the same way that a warehouse is identified, using the first two positions of the location code.

### Stockroom

A warehouse may be separated into more than one section called stockrooms. Each stockroom is identified by a single capital letter. This letter follows the warehouse number in the location code.

Two factors influence how to identify a stockroom.

- Stockrooms are sequenced from left to right and from front to rear. The main aisle is the determining point of this left-to-right alignment of the warehouse.
- NEVER use the capital letters I or O to identify a stockroom. These letters are easily mistaken for the numbers *1* and *0* (fig. 2-7).

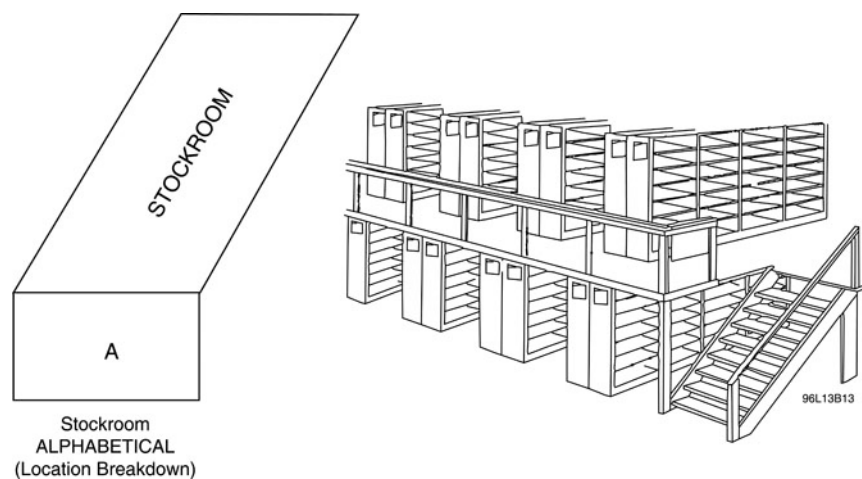


Figure 2-7. Stockroom (alphabetical) location breakdown.



### Storage block

In an open storage area, the storage lot is divided by storage blocks. Storage blocks are identified in the same way as the stockroom.

**NOTE:** The remaining parts of the location code are applicable to both covered and open storage.

### Bin row

Within a stockroom, items are stored in bin rows—also called storage rows, palletized rows, bulk bays, or rack storage. Bin rows are normally found in bulk storage and identify the aisle-side of bay storage areas. The row is identified with a three-digit number. For example, row 1 is labeled as row 001; row 25, row 025; and row 105, as 105. This makes up the third part of the warehouse location code (fig. 2-8).

Row numbers run from the front of a stockroom to the rear. The main aisle, which runs through the stockroom, is considered the determining point as to which side of the stockroom is assigned even or odd numbers. Odd numbers are assigned to the left of the main aisle, while even numbers are assigned to the right of the main aisle. When numbering bin units or rows, all numbers should be in plain view and as uniform as possible.

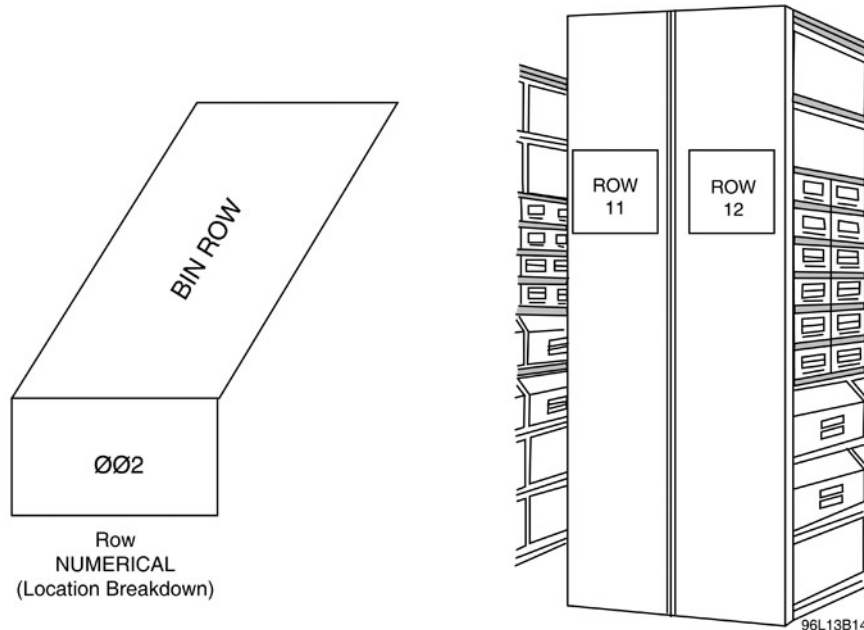


Figure 2-8. Bin row (numerical) location breakdown.

### Storage level

The fourth part of the warehouse location code is the level of storage. Each vertical level is identified by a single capital letter, where *A* designates the lowest level, *B* the next level up, and so on. The letters indicating levels in a series should be placed approximately every six feet along the bin row. This is so you do not have to return to the front of the row to find out what level you are looking at. Figure 2-9 provides an example of the use of alphabetical letters to identify levels of storage vertically.

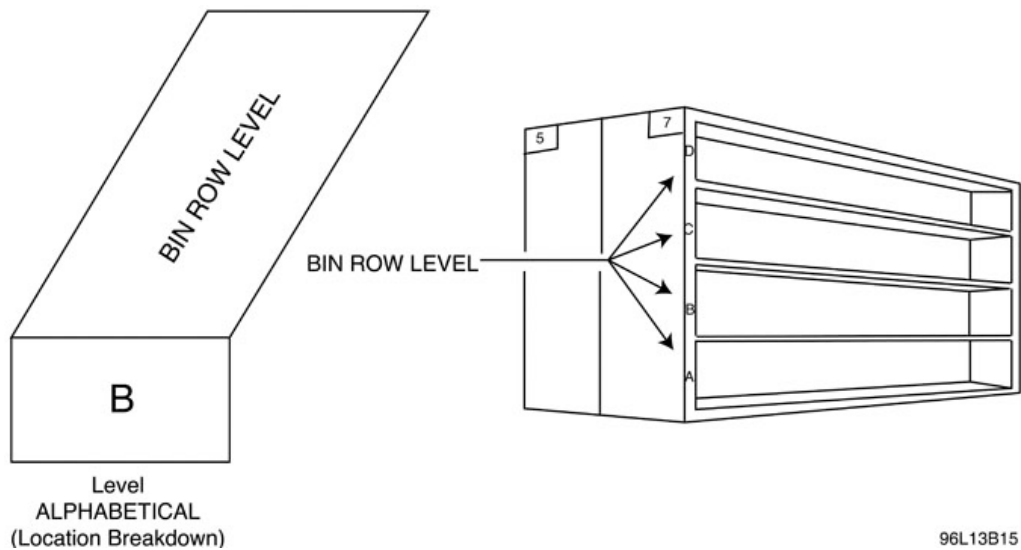


Figure 2-9. Storage level (alphabetical) location breakdown.

### Individual bin

The fifth part of the warehouse location code is the individual bin. Each individual bin, bay subdivision, or individual pallet is identified using a three-position number. When numbering the individual bins, the sequence will start at the bin nearest the main aisle and continue away from the main aisle in numerical sequence. The first bin of each level is designated bin 1 and is written as bin 001 (fig. 2-10).

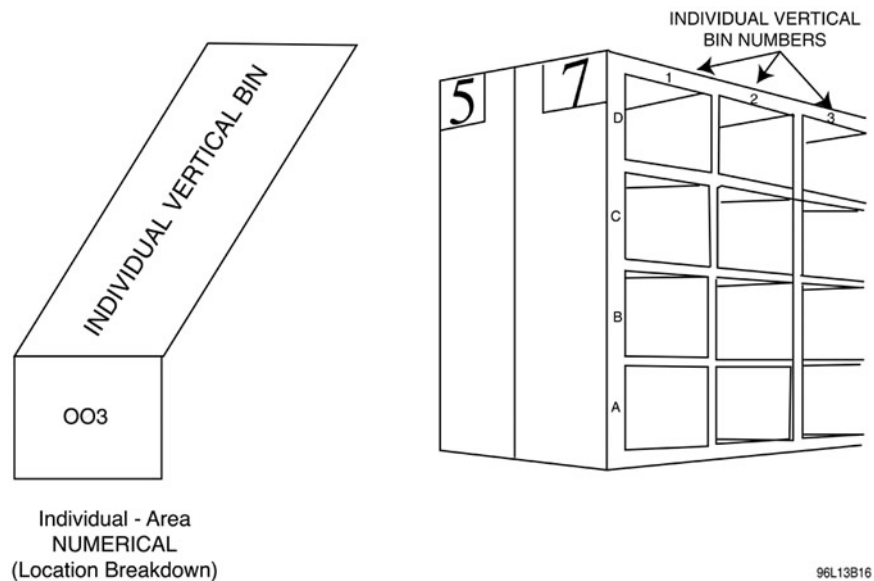
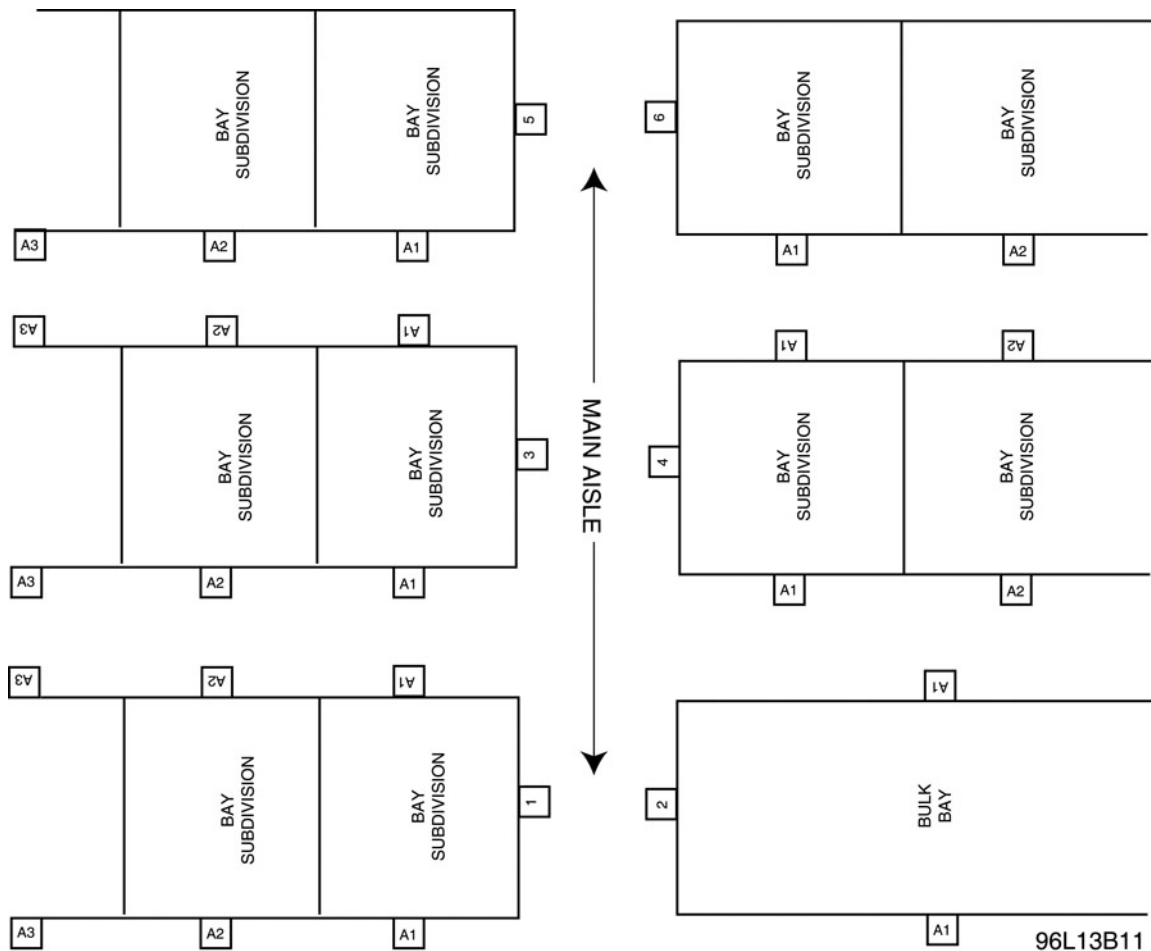


Figure 2-10. Individual bin (numerical) location breakdown.

Individual pallet locations in bulk areas are also identified by numbers. An example of a bay storage subdivision is shown in figure 2-11. The numbers will always start nearest the main aisle and continue away from it in numerical sequence.





FRONT OF WAREHOUSE 05  
STOCKROOM F

Figure 2-11. Individual bay storage.

When assigning numbers to pallet rack units having more than one height, begin with the individual pallet rack unit nearest the main aisle; this is the same manner in which individual bins are numbered. The numbers identifying individual bin locations normally appear on a decal applied to each location. Bulk-area pallet locations identify the location with either a decal or a number painted on the floor. A number will always appear on each individual location. This allows you to identify the location you are looking at.

### Bin subdivision

When storing small loose items, like nuts, bolts, screws, washers, or small electronic parts, it's often easier to place them in a bin drawer. When storing different items in the same drawer, use dividers to keep them apart. Each storage space is called a subdivision. Bin drawer subdivisions are identified using a single capital letter at the end of the warehouse location code. These letters range alphabetically from the front of the drawer to the rear, beginning with the letter A. Sometimes an individual bin will be subdivided into individual sections. When this is done, the division is identified by a letter in the same way that a bin drawer unit is identified.

Not every warehouse location code will use this position. The bin does not have to be divided if there is only one stock numbered item in it. When the bin is not divided, use the 10-position, five-part code.

Do not assign an A if there is no B. If there is a bin subdivision, use the full 11-position, six-part code to identify the warehouse location. See figure 2-12 for an example.

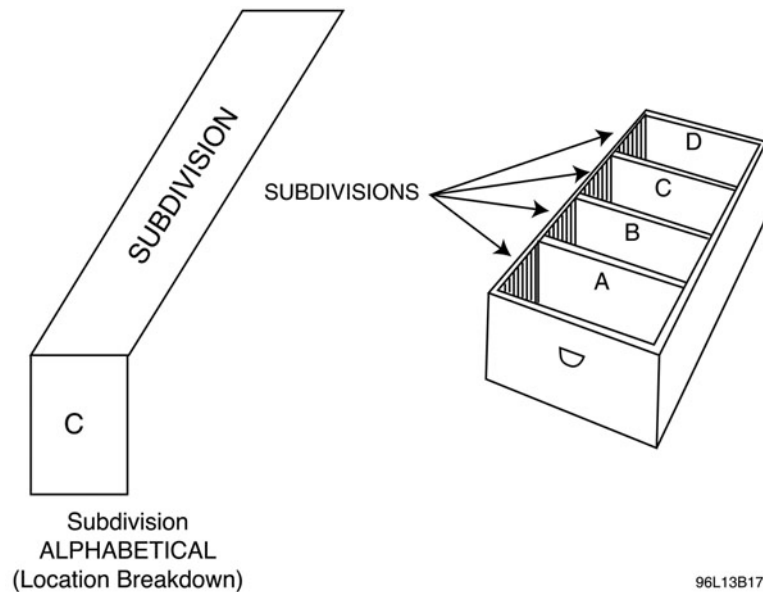


Figure 2-12. Bin subdivision (alphabetical) location breakdown.

### Processing warehouse locations

Now that you've learned how to identify and create a warehouse location, your next step is to learn how to store that location in the computer database using a warehouse location change request—commonly referred to by its TRIC code, FCS. An FCS can be processed to accomplish the following tasks:

- Load or assign a warehouse location.
- Change a warehouse location.
- Delete a warehouse location.

### Loading a warehouse location

Once you've determined the need to assign a location, your next steps are to bin the property, remove the old bin label (if necessary), and transcribe the location on the "notice to stock" document you received with the property. Handwrite a temporary bin label and place it on the bin to identify the property and location.

Using any suitable form, storage medium (e.g., backup hard drive or file-to-file transfer), or the "notice to stock" document, to provide the FCS input information to the storage computer processing area for processing. The data entries are required to process an FCS transaction are:

- TRIC—FCS.
- Stock number.
- Warehouse location.
- System designator (normally 01).

### Changing or deleting a warehouse location

There are several reasons why you may want, or need, to change a warehouse location. For example, your supervisor may want to move all of the property from stockroom A to stockroom B to make room for some special property, or you may need to relocate some property to make it safer or easier

to handle. Whatever the reason, make sure that you take the proper procedures so the property does not become lost. Place the property in its new location and put up a handwritten label to mark the location. Then, be sure to destroy the old bin label from its previous location. To process the warehouse location change, use the same format you did to load a warehouse location.

Sometimes you may need to delete a warehouse location. Normally, this is done to provide new storage space. You can delete a warehouse location by processing an FCS input with the “warehouse location” field left blank, and by entering an asterisk (\*) in the “warehouse location delete flag” field.

### Reconciling D04, daily document register

The item suspense file consists of a copy of the original FCS request. The files should be kept in stock number sequence to allow easy verification that the computer records have been updated.

To clear your warehouse suspense file, use a copy of the D04, daily document register, part two, as proof the FCS was processed to computer records. Using the D04, pull the item suspense documents from the file and dispose of them as local procedures dictate. Figure 2-13 is an example of a D04, daily document register.

```

<--STOCK NUMBER-->  ERC  FAC  IP  RID  UI  <--NOMENCLATURE--><CAGE>QNTY-><--EXT-COST-> AC <--MARK FOR--> SUPAD TIC <-DOCUMENT NBR-> MC
F B S                                     ENDING TRANS SER          STA  O/P M          REASON
I C C <-JOCAS NBR> TP TRANS PHRASE      ODT  DOLD  BALANCE DATE  NUMBR  DOLT ADV  FUNC C STOCK NBR RQSTD Y      INIT PROJ NBR
06 SEP 17 LACKLAND TX      /S 3047 01 <PART 1, TA: BEP>DAILY DOCUMENT REGISTER(D04)      NGV804/170907 17249 17249 PAGE  2
<--STOCK NUMBER-->  ERC  FAC  IP  RID  UI  <--NOMENCLATURE--><CAGE>QNTY-><--EXT-COST-> AC <--MARK FOR--> SUPAD TIC <-DOCUMENT NBR-> MC
F B S                                     ENDING TRANS SER          STA  O/P M          REASON
I C C <-JOCAS NBR> TP TRANS PHRASE      ODT  DOLD  BALANCE DATE  NUMBR  DOLT ADV  FUNC C STOCK NBR RQSTD Y      INIT PROJ NBR
8415 01 547 3473      XB32 000 03 MSMS REA PARKA,CAMOUFLAGE      0  $9001.72 6C      DIT FB3047 6077 0015
9      50 CHG FR UMMIPS      DOR      52 17249 00526 17249  A 00509  X120HQ607603033      ES01
8415 01 547 3473      XB32 000 14 MSMS REA PARKA,CAMOUFLAGE      1  $9001.72 6C GUERRERZZZZZ      DIT FB3047 6077 0015
9      5P CHG TO UMMIPS      DOR 17249      52 17249 00527 17249  A 00509  X120HQ607603033 N      ES01
8415 01 547 3486      XB34 000 03 MSMS REA PARKA,CAMOUFLAGE SS      0  $5712.63 6C      YAZ120DIT FB3047 6307 0078
9      50 CHG FR UMMIPS      DOR      33 17249 00623 17249  00509  X120HQ630803053      ES01
8415 01 547 3486      XB34 000 03 MSMS REA PARKA,CAMOUFLAGE SS      33  $5712.63 6C      YAZ120DIT FB3047 6307 0078
9      5P CHG TO UMMIPS      DOR 17249      33 17249 00624 17249  A 00509  X120HQ630803053 N      ES01
8415 01 547 3544      XB32 000 08 MSMS REA PARKA,CAMOUFLAGE      0  $47778.36 6C      YAZ120DIT FB3047 7004 0004
9      50 CHG FR UMMIPS      DOR      276 17249 00497 17249  00509  X120HQ700403015      ES01
8415 01 547 3544      XB32 000 08 MSMS REA PARKA,CAMOUFLAGE      276  $18003.44 6C BMTWHSEZZZ110J YAZ120DIT FB3047 7009 0033
9      5P CHG TO UMMIPS      DOR 17249      104 17249 00500 17249  A 00509  X120HQ700403015      ES01
8415 01 547 3544      XB32 000 08 MSMS REA PARKA,CAMOUFLAGE      0  $47778.36 6C      YAZ120DIT FB3047 7174 0010
9      50 CHG FR UMMIPS      DOR      276 17249 00554 17249  00509  X120HQ700403015      ES01

```

Figure 2-13. D04, daily document register.

### Bin labels

Bin labels are produced by processing an FCS input. You will need to place one on each active primary location. Bin labels make it easier to identify an item in that location. The AF uses bar-coded labels to aid in inventory and warehouse validation. Figure 2-14 is an example of a bar-coded bin label.

On the first line of the bin label, you will find the stock number and nomenclature. The second line has the warehouse location and unit cost. Attach bin labels to storage racks, bins, or subdivisions in a neat and uniform manner. Outside storage locations should have bin labels placed at strategic points in the area (such as on corner markers of open storage bays). Place outside storage labels in permanent weatherproof placement cards to protect them against weather conditions.

Validate the data on the bin labels by checking them against any storage document or bin notice produced. If you notice a warehouse location that has property without a bin label, or find a label with data that does not match the documentation, you will need to research the situation and request a replacement label if necessary.

To request a replacement bin label, process an FCS input with an R in the “bin label request flag” data field. The “warehouse location” field must be blank when this option is used.



Figure 2-14. Bar-coded bin label.

### *Handwritten bin labels*

You will need to create a handwritten label as a temporary location identifier until a computer printed bar coded label is received. Handwritten labels are used when relocating items to new locations or when stocking items with no warehouse locations. They are also used for unserviceable storage areas since a computer printed bin label will not be produced. As a minimum, each handwritten label should have the following information:

- Stock number.
- Warehouse location.
- Unit of issue.
- Julian date prepared.

### *Reserve locations*

Reserve locations may be necessary when you have an overflow of assets that cannot be stocked in the primary location. They can be used to store large quantities of bulky items for purposes of replenishing primary locations or may be required in cases where you have large quantities of outgoing shipments. Reserve locations should be created on an as required basis *only* and should not be a permanent fixture. The AO must implement local procedures to ensure that controls for reserve locations are established and that these locations are used *only* as a last resort. Cross-reference the primary location to show that a reserve location is present. Promptly delete reserve locations when they are no longer needed.

## **611. Validating warehouse locations**

All warehouse locations must be validated at least once a year (annually). This is normally done before a scheduled inventory. Why are location validations required?

- To verify that the asset is, in fact, stored in the warehouse location stated on the item record.
- To ensure that all item records indicating a serviceable balance are assigned a warehouse location.
- To identify records with duplicate warehouse locations.

### **Preparing schedule**

Storage personnel establish a validation schedule for each fiscal year. The schedule ensures that all assigned locations are validated at least once a year. Creating a schedule requires close coordination between the personnel in the inventory and storage functions. They must consider when they will be able to work together on the validation and inventory, and what their workloads are going to be like during those times. Warehouse validations should be completed within 10 workdays of the start of an inventory cycle or a sample inventory. When practical, the inventory schedule should follow the warehouse location validation schedule.

### **Creating validation list**

One day prior to beginning your validation, you will need to prepare a warehouse location (program R36) parameter input. The parameter input is used to select the warehouse locations you want to validate and it provides you with a printed listing. The listing will allow you to compare the location data on computer records to the actual locations in your warehouse. The parameter input lets you choose from several options to create your database file. For example, you can select a specific range of locations or you can select other elements such as the controlled item code (CIC) (ERRCD, DOLT, etc.). After you've identified your parameters, send this information to computer operations for processing.

### **Area preparation and performing the validation**

Before performing the validation and subsequent inventory, you will need to prepare the warehouse area. This involves marking the area with ropes, signs, or placards to identify and isolate the area. Limit the movement of assets and ensure that all transactions are processed promptly. Doing so ensures the warehouse is in the best condition before an inventory.

Now that you're ready to begin, you should have on hand the FCS validation file listing provided by program R36. This listing provides the beginning and ending warehouse locations you selected from your parameter input (in warehouse location sequence) and the system designator for the validation in progress. Figure 2-15 is an example of a R36, serviceable balance—no warehouse location listing.

Your first step is to compare the stock number displayed on the bin label with the stock number on the property in the bin. Check to see that this matches the information recorded on the item record. Ensure the materiel is properly tagged and identified and in its correct location. Replace any worn or missing bin labels as necessary.

Your next step is to delete any dead warehouse locations. Dead locations have an item record balance of zero, a demand level of zero, and a DOLT equal to or greater than 30 days. If the location is empty, delete it by processing an FCS. If there is stock in the bin, process a special inventory request, and forward the request to the inventory section.

### **Resolving discrepancies**

When the stock number on the property does not match the stock number on the bin label, the following actions are required:

- Process an FCS or move the property to the correct location. Determine the correct location by researching the central locator listing, reviewing the warehouse location change suspense file, researching the D04, daily document register, and/or processing inquiries.
- If the inquiry rejected because the item record was not loaded, prepare a request for a special inventory, 1GP. Ask the research section to load the item record and process an FCS. Then process the 1GP, enter the location of the property on the request, and forward it to the inventory section.
- If the inquiry indicates a zero balance, prepare a request for a special inventory, enter the location on the request, and forward it to the inventory section.

Warehouse Location	Stock Number	Nomenclature	C I C	UI	ERRC	DOLT	DOLI	Serv Balance	I E X	Demand Level	S L C	Unit Price	D e t a i l s
01B02SA001	2610005287138	TIRE, PNUE TUBLESS	U	EA	XF3	2017212	2016325	1		0	I	\$782.34	
01B02SA003	2610012141344	TIRE,PNEUMATIC,VEHI	U	EA	XB3	2016275	2016325	1		0	I	\$1,658.76	
01B02SA008	2610014437040	TIRE,PNEUMATIC,VEHI	U	EA	XB3	2016275	2016325	1		1	I	\$2,414.21	
01B02SA014	2610012865798	TIRE,PNEUMATIC,VEHI	U	EA	XB3	2017163	2017096	5		4	I	\$1,106.26	
01B02SA021	2610002626677	TIRE PNEU B/T900-20	U	EA	XF3	2017053	2016325	3		2	S	\$245.25	
01B02SA024	2610011946238	TIRE,PNEU SZ 11.00R	U	EA	XB3	2017108	2016325	1		0	I	\$506.99	
01B02SA025	2610013446705TG	TIRE, PNEU, 295/75R	U	EA	XB3	2017108	2016325	1		1	I	\$479.19	
01B02SA026	2610013116853	TIRE,PNEUMATIC,VEHI	U	EA	XF3	2016286	2016325	3		2	I	\$422.30	
01B02SA031	1560004604920UC	SUPPORT,STRUCTURAL	U	EA	XD2	2016311	2016325	1		0	0	\$18,852.49	
01B02SA039	1620002151607	BALLSCREW ASSEMBLY	7	EA	XD2	2017249	2016325	0		0	0	\$24,431.51	1
01B02SA041	1680003437650UC	WINCH 4F90000-105B	U	EA	XD2	2017227	2016326	4	5	5	0	\$123,209.00	1
01B02SA051	1620002151609	BALLSCREW ASSY	7	EA	XD2	2017249	2016325	0		0	0	\$21,634.31	1
01B02SA054	6145009486412EH	CABLE SPECIAL PURPO	U	FT	XB3	2016275	2016325	534	4	0	0	\$1.71	
01B02SA058	1630011894176	BRAKE MULTI-DISK C5	7	EA	XD2	2017229	2016326	2		0	0	\$95,418.53	
01B02SA061	5820004416902RY	RECEIVER,TRANSMITTE	7	EA	XD2	2017229	2017039	1		1	0	\$31,035.39	
01B02SA064	1680015732901SY	GEARBOX ASSEMBLY,AI	U	EA	XD2	2016122	2016325	1		1	0	\$30,320.31	
01B02SA066	5920014976857	RETAINER,FUSE	U	EA	XB3	2016187	2016325	220		0	0	\$80.00	
01B02SA071	1670007784079CT	TIE DOWN, CARGO, AI	U	EA	XB3	2017248	2016326	36		85	0	\$92.59	
01B02SA079	6115002523421HY	GENERATOR,ALT CURRE	7	EA	XD2	2017040	2016325	0		2	0	\$64,672.66	
01B02S8001	1670007251437MH	TIEDOWN,CARGO,ACFT	U	EA	XB3	2017216	2016325	268		296	0	\$23.38	
01B02S8011	4520015805937	PRTS KIT,FRONT WHEE	U	EA	XB3	2016275	2016325	2		0	0	\$413.83	
01B02S8016	1680000045322MH	COVER SEAT,BACK ACF	U	EA	XB3	2017194	2016325	133		0	0	\$85.17	
01B02S8021	1680013546304UC	PROCESSING UNIT (CP	U	EA	XD2	2017158	2016326	2		2	0	\$92,868.39	1

Figure 2-15. R36, Serviceable balance—No warehouse location listing.

### Resolving serviceable balance—no warehouse location listing

This listing is used to identify items that have a serviceable balance on the item record, no warehouse location assigned, and a DOLT greater than three days. The listing is output in stock number sequence.

It requires research to resolve a discrepancy in the *serviceable balance, no warehouse location* listing. To do this, research transaction histories, review suspense files, look for shelved property with no bin label, look for backlogs in the warehouse, check the reject area, and so forth.

## Self-Test Questions

After you complete these questions, you may check your answers at the end of the unit.

### 610. Assigning, changing, and deleting stock locations

1. What are the minimum and maximum numbers of positions found in a warehouse location designator?
2. What two factors identify a stockroom?
3. How are storage levels identified and how will they be labeled?
4. What are the reasons for processing an FCS?



5. Why are warehouse locations normally deleted?

6. Why does the AF use bar coded bin labels?

7. When are reserve locations used?

### **611. Validating warehouse locations**

1. List the reasons for doing a warehouse location validation.

2. Who prepares the warehouse location validation schedule?

3. For what period of time is the warehouse location validation schedule prepared?

4. Ideally, when should a warehouse validation be completed?

5. When do you prepare the parameter input for your warehouse validation?

6. What corrective action do you take on a discrepancy where the NSN on the property in location does not match the NSN on the bin label and the item record is loaded?

7. What is the serviceable balance—no warehouse location listing (R36) used for?

## 2-3. Storage Principles and Products

Some storage principles are universal. By practicing basic storage techniques along with care, and safety principles, you will contribute to the overall effectiveness of your warehouse operation.

Much of the work you receive in storage is generated by documents output from the Standard Base Supply System (SBSS). Some of these documents are warehouse change, issue, shipment, and transfer documents. Your responsibilities as a storage clerk to these particular documents are described in the next two lessons.

### 612. General storage techniques

Storage space is the basic resource of any storage operation. Store property in a way that makes the best use of this space and allows for easy identification of materiel.

#### Conserve storage space

Wasted storage space is uneconomical. It creates a possible shortage of space and is not cost-efficient. To reduce this problem, stack materiel as **HIGH** as practicable and as **COMPACTLY** as possible.

#### Stack high

Storage space is three-dimensional. Stacking items high takes advantage of the most overlooked storage space—vertical storage space. It would be ridiculous to have ceilings 25 feet high in a warehouse and then stack materiel only 5 feet high. Figure 2-16 shows a very good example of just what is meant by vertical space.

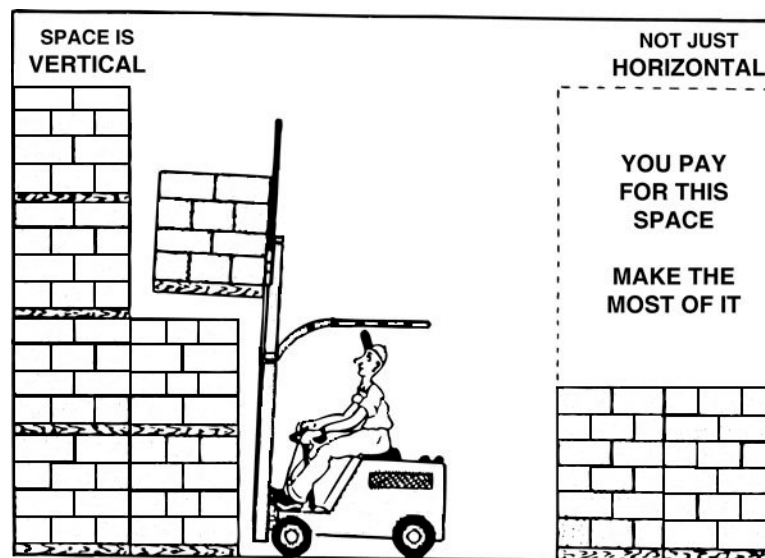


Figure 2-16. Use of vertical storage space.

The height to which supplies are stored is determined by several factors. The two major factors you must consider are the strength of the storage containers and the type of supplies to be stored. Also, keep in mind the use of available storage aids, stability, or safety of the stack, your equipment's maximum lifting height, floor load capacity of the storage areas, and ceiling clearance. Some suggestions on how items can be stored in stacks are shown in figure 2-17.



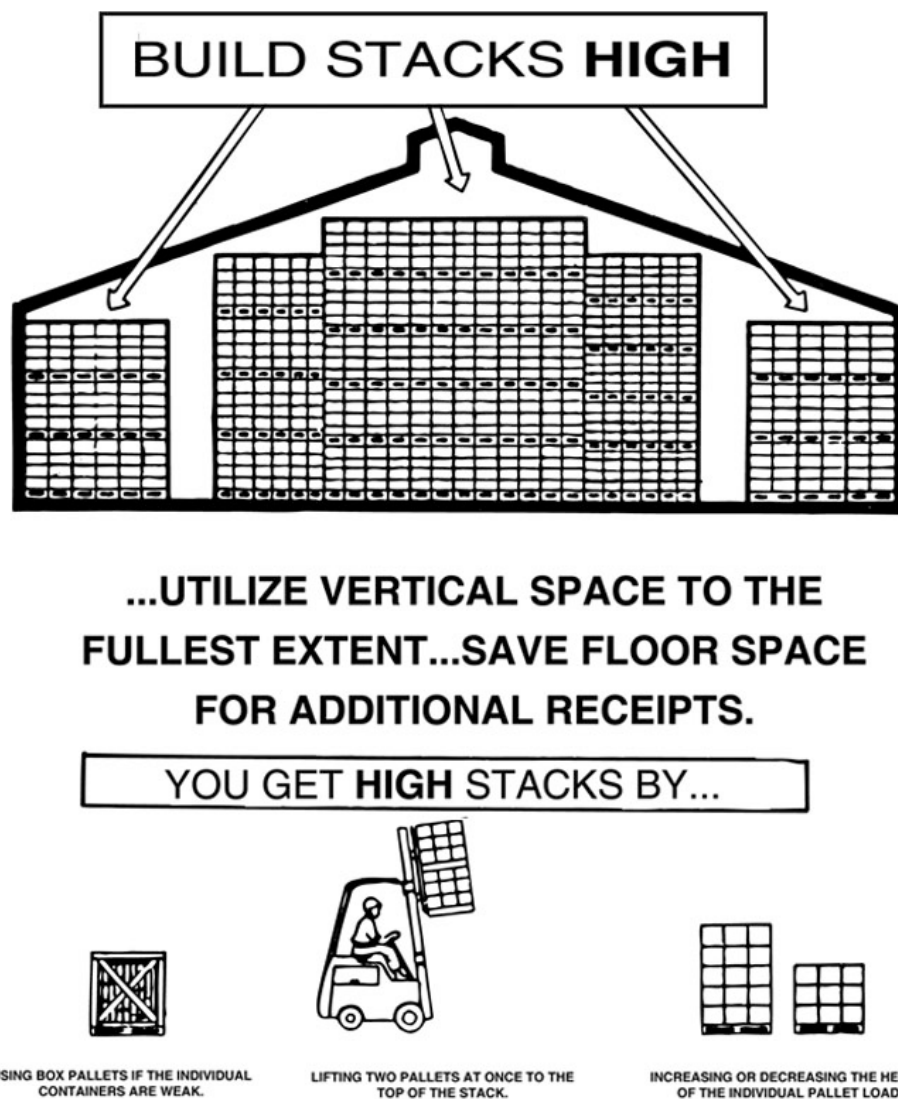


Figure 2-17. Store items as high as possible.

Most of the wasted storage space you will readily recognize will be in the bulk storage areas. The best way to prevent the loss of space in these areas is to place the items on pallets and stack like items when possible.

### *Stack compactly*

The more compactly you pack, the more you can store in a warehouse or storage area. Make an effort to match and stack containers by size. Try to avoid stacking various sized containers together of the same item since this can create wasted space. Although such care may take a little more time, it usually pays dividends in the conservation of space and convenience in inventory activities.

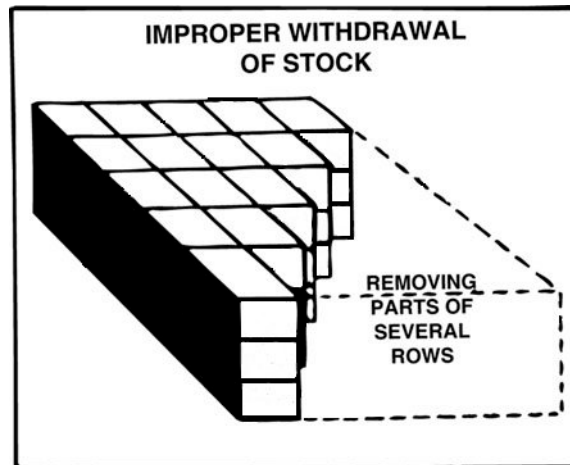


Figure 2-18. Honeycombing.

### *Avoid honeycombing*

Storing or removing items in a way that creates unusable areas of storage space in a stack is called honeycombing. Removing or storing items in such a way is not a good storage practice. Excessive stacking depth can also result in vacant space in front of stacks. This, too, is space that cannot be used for storing other items. Honeycombing is the result of poor space layout, poor storage methods, and poor planning (fig. 2-18).

### **Store systematically**

By systematically storing supplies, you will aid warehouse operations in stock selection, inventory, inspection, stock rotation, and in the elimination of unnecessary materiel handling.

### *Stack in an orderly manner*

Orderliness in stacking means straight, stable, easily accessible stacks. It also means, placing like items together so the contents of the containers may be quickly and easily identified. Make sure stacks are reasonably regular and neat in appearance. The quantity in each row needs to be uniform, with partial containers placed in front. This allows for ease of access and inventory.

### *Store for first-in/first-out*

You often will be required to store items that have limited shelf life. To properly store and issue these items, follow the system of first-in/first-out (FIFO). This method ensures that the oldest items are issued first (before they become outdated).

The FIFO method is simple. Place an item that is stocked today behind any of the same items already in storage. By doing so, when the item is to be issued or shipped, you will be more likely to select the oldest items in stock (first-in) before selecting those that arrived later. If this method is used, the number of items that will become outdated on a storage shelf will be much lower. Hopefully, the item will be in use before it reaches its shelf-life expiration date.

### **Mark materiel for storage**

Another general storage principal is to mark property for storage. Properly marked and stored individual containers and packages enhance inventory and validation. Accurate stock accounting results in credible issues and an improved inventory condition overall. Materiel that is not properly identified and marked at the time of receipt is subject to improper storage and issue. Therefore, warehouse personnel must ensure that all condition, identification, and hazardous tags/labels are in place on items when they are obtained from receiving. Furthermore, you must ensure they remain in place during the storage life of each asset.

The best method to retain the identity of materiel in open storage areas is to laminate the original condition tag/label with plastic. Use a soft black lead pencil for marking, as it deteriorates the least when laminated. Other outdoor storage marking techniques include stenciled metal tags, embossed aluminum stripping, and identification sprayed on with an outdoor paint. Obliterate any markings on containers that do not apply to the presently packaged materiel. Examples are mission capable labels or labels with 999. If you discover an asset in stock having no markings or identification labels, turn it over to an inspector for action.

### 613. Updating warehouse indicative data

A warehouse change document is produced anytime a change is made to the identity, condition, unit of issue, stock number, system designator, or CIC of an item record. When this happens, you will need to update bin labels, tags, and property as appropriate, and take any other actions as necessary.

#### Storage actions

Warehouse change documents are identified by their TRIC. The following table lists those TRICs and the changes they represent.

TRIC	Change
FCC	Condition
FCH	Identity
FCU	Unit price/unit of issue
FIC	Indicative data
1SC	Controlled item code

The specific storage actions for each type of warehouse change document are provided in the paragraphs below.

#### Condition change

A condition change (FCC) indicates a change in the condition of the property. An example of this would be when the property has deteriorated or become damaged in storage. When this happens, an inspector must process an FCC. If the change was from a serviceable to an unserviceable condition, you will need to relocate the property and enter the new warehouse location on the transaction document.

After you've relocated the property, if necessary, sign the DD Form 1348-1A. An inspector will stamp or sign the document and enter the reason for the condition change. Additional room for the explanation, if needed, can be documented on the reverse side of the form.

#### Identity change

An identity change (FCH) identifies property that has been misidentified by the manufacturer. This type of error can occur when the manufacturer stamps an erroneous number on an item. For example, an item's part number may cross-reference to an AM radio, but the item itself is an FM radio.

If you find property in stock that has been misidentified by the manufacturer, forward it to an inspector who will decide the proper identity of the item and process an FCH to correct the condition. If the total quantity for that item has been misidentified, see to it that the old location is empty, the bin label has been removed, and the stock number directory has been updated. Process an FCS to enter or change the warehouse location on the item record and annotate that information on the document.

For all other identification discrepancies of items in storage (other than the manufacturer's fault), prepare a request for special inventory. Correct identification discrepancies of items on detail records, other than those misidentified by the manufacturer, by processing a record reversal if possible. The final decision as to whether or not an FCH is proper for correcting an identification discrepancy belongs to the inspector.

### Unit price/unit of issue change

Regarding unit price/unit of issue changes (FCU), ensure all records are changed to show the correct or new information. A unit of issue change probably will require you to make some changes in how the items are packaged. This could mean either boxing the items so there will be more of the item to a unit or having to separate a boxed item into single items, tying several single items together, or taping several single items together (fig. 2-19).

1. TOTAL PRICE										2. SHIP FROM										3. SHIP TO																																							
UNIT PRICE										DOLLARS										CTS																																							
DOLLARS										CTS										4. MARK FOR																																							
5. DOC DATE										6. NMFC										7. FRT RATE										8. TYPE CARGO										9. PS																			
10. QTY. RECD										11. UP										12. UNIT WEIGHT										13. UNIT CUBE										14. UFC										15. SL									
16. FREIGHT CLASSIFICATION NOMENCLATURE										17. ITEM NOMENCLATURE										18. TY CONT										19. NO CONT										20. TOTAL WEIGHT										21. TOTAL CUBE									
22. RECEIVED BY										23. DATE RECEIVED																																																	

DD FORM 1348-1A, JUL 91 (EG) ISSUE RELEASE/RECEIPT DOCUMENT

34. DOCUMENT NUMBER  
85UPFA (50-44)

25. NATIONAL STOCK NO. & ADD (8-42)

26. RIC (4-8)  
CON CODE (71)  
DST (65-88)  
UP (74-90)

27. ADDITIONAL DATA

FCU

00000327

Y5315008892756

WHSE LOC: 01H014B011

5315008892756

OLD UNIT OF ISSUE: PG  
OLD RECORD BALANCE: 5

NEW UNIT OF ISSUE: BX  
NEW RECORD BALANCE: 0

WHSED/SIGN-DATE: Holland 7314

INSPECTOR: \_\_\_\_\_

9731400150 97314/0844

INPUT DEVICE01063 OUTPUT DEVICE01007 Adobe Designer 8.0

Figure 2-19. Sample FCU, DD Form 1348-1A.

### Indicative data change

Indicative data changes (FIC) are stock number, routing identifier code (RIC), budget code, system designator, or ERRCD changes. See to it that the bin labels, property tags, and stock number directory are updated to reflect the correct data (fig. 2-20).

### Controlled item code change

The CIC indicates the degree of security handling required for a particular item. A change in the CIC (ISC) could require you to move the item to a place where it has more protection if the change increases the security classification, or you may have to move the item out of a more secure area, if the security classification is decreased (fig. 2-21).

**NOTE:** If the CIC is changed from a classified code to an unclassified code, the materiel management flight commander or superintendent must sign the warehouse change document to approve the item's relocation.

DD FORM 1348-1A, JUL 91 (EG) ISSUE RELEASE/RECEIPT DOCUMENT

1	2	3	4	5	6	7	23	24	25	26	27	28	29	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
FIC P														1. TOTAL PRICE																2. SHIP FROM				3. SHIP TO															
24. DOCUMENT NUMBER & SUFFIX (DD-44)														UNIT PRICE																DOLLARS				CTS															
25. NATIONAL STOCK NO. & ADD (8-22)														DOLLARS CTS																																			
26. RIC (4-6) UI (23-24) CON CODE (71) DIST (55-58) UP (74-80)														5. DOC DATE																6. NMFC				7. FRT RATE				8. TYPE CARGO				9. PS							
27. ADDITIONAL DATA														10. QTY. RECD																11. UP				12. UNIT WEIGHT				13. UNIT CUBE				14. UFC				15. SL			
														16. FREIGHT CLASSIFICATION NOMENCLATURE																																			
														17. ITEM NOMENCLATURE																																			
														18. TY CONT																19. NO CONT				20. TOTAL WEIGHT				21. TOTAL CUBE											
														22. RECEIVED BY																				23. DATE RECEIVED															

DOC NUMBER: Y6830004958614

CHANGE FROM: 6830004958614

CHANGE TO: 6830013357509

CHANGE FROM:

ERRCD: XB3

RIC: S9G

OLD QTY: 0

NEW BUDGET CODE: 9

IEX CD: 8 - \*HEALTH HAZARD-MEDICAL NOTIF REQD

CHANGE TO:

ERRCD: XB3

WHSE LOC: 07B004B002

RIC: S9G

NEW QTY: 0

WHSED/SIGN-DATE: Holland 7314

INSPECTOR: \_\_\_\_\_

9726600441 97266/1029

INPUT DEVICE01063 OUTPUT DEVICE01007 Adobe Designer 8.0

Figure 2-20. Sample FIC, DD Form 1348-1A.

DD FORM 1348-1A, JUL 91 (EG) ISSUE RELEASE/RECEIPT DOCUMENT

1	2	3	4	5	6	7	23	24	25	26	27	28	29	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
1SC														1. TOTAL PRICE																2. SHIP FROM				3. SHIP TO															
24. DOCUMENT NUMBER & SUFFIX (DD-44)														UNIT PRICE																DOLLARS				CTS															
25. NATIONAL STOCK NO. & ADD (8-22)														DOLLARS CTS																																			
26. RIC (4-6) UI (23-24) CON CODE (71) DIST (55-58) UP (74-80)														5. DOC DATE																6. NMFC				7. FRT RATE				8. TYPE CARGO				9. PS							
27. ADDITIONAL DATA														10. QTY. RECD																11. UP				12. UNIT WEIGHT				13. UNIT CUBE				14. UFC				15. SL			
														16. FREIGHT CLASSIFICATION NOMENCLATURE																																			
														17. ITEM NOMENCLATURE																																			
														18. TY CONT																19. NO CONT				20. TOTAL WEIGHT				21. TOTAL CUBE											
														22. RECEIVED BY																				23. DATE RECEIVED															

Y9330000201890

WHSE LOC: 01E002E003

93300002021890

CHANGER CIC FM \* TO U

SERVICABLE BAL: 1

NEW WHSE LOC: \_\_\_\_\_

WHSED/SIGN-DATE: Holland 7314

INSPECTOR: \_\_\_\_\_

9731800113 97318/0829

INPUT DEVICE01063 OUTPUT DEVICE01007 Adobe Designer 8.0

Figure 2-21. Sample 1SC, DD Form 1348-1A.



### Change document entries

Once you've taken all of the required actions, sign and date the warehouse change document to signify that all storage actions have been accomplished. Send it to an inspector who will verify that everything is correct, take further action as necessary, and sign and date the document.

### FCU, FIC, and ISC entries on the D04

The FCU, FIC, and ISC entries on the D04 indicate warehouse change documents for unserviceable assets. Each entry listed on the D04 must be checked to verify the proper action was taken on the property. The entries are arranged sequentially by document number, which will have activity code "R," organization code "920," and shop code "RW" in its first seven positions. The FIC entries indicate changes to stock number, system designators, and/or ERRCD. The ISC entries indicate changes to CIC, and the FCU entries indicate changes to the unit of issue. Correct any discrepancies by changing identification tags, labels, or by moving property if necessary. Then, cross out the corresponding entry on the D04 when the action has been accomplished. Once all transactions are verified as processed by storage personnel, the D04 is destroyed. If any further questions arise, document control's original/master copy of the D04 is used.

### 614. Pulling property

As you receive documentation for items to be issued, shipped, or transferred from stock, select or pull the items from storage, annotate the documentation, and move the items to their appropriate areas for distribution. You will also need to validate zero balances and know what to do when you encounter a warehouse refusal.

### Issue documents

Issue documents are printed on DD Form 1348-1A (fig. 2-22). Issue documents can be either routine or priority. Routine documents are distributed to the various warehouse stockrooms for property selection. Priority documents require immediate attention.

1. TOTAL PRICE										2. SHIP FROM										3. SHIP TO																																							
UNIT PRICE										DOLLARS										CTS																																							
DOLLARS										CTS										FE3059																																							
4. MARK FOR										00GD212GUVAR0J																																																	
5. DOC DATE										6. NMFC										7. FRT RATE										8. TYPE CARGO										9. PS																			
97152																				3										U																													
10. QTY. RECD										11. UP										12. UNIT WEIGHT										13. UNIT CUBE										14. UFC										15. SL									
1																																																											
16. FREIGHT CLASSIFICATION										17. ITEM NO										18. TY CONT										19. NO CONT										20. TOTAL WEIGHT										21. TOTAL CUBE									
COLLOCATED										MSI										000009XC7										-FPZ																													
SENSITIVE INFO DISPLAYED										CIRCUIT CRD ASY-101										XD2																																							
22. RECEIVED BY										B. B. B.										23. DATE RECEIVED										7152																													
24. DOCUMENT NUMBER										25. NATIONAL STOCK NO. & ADD (8-22)										26. RIC (4-6)										27. ADDITIONAL DATA																													
ISUB75 EA 1 260024483701 03 AG A										J716BB71520002 R										WHSE LOC: 01A046C012 SERV BAL = 0										STOCK NUMBER: 711OPSA3672T/										SHIP TO: RAYTHON MANAIS F16 5D3										ADDRESS: BLDG 859 RM 141									
4844										80230-5350										AIRLIFT INVESTMENT ITEM																																							
TYPE TRANS: DIFM T/100001										4-REQUIREMENT										BCG ORDER CD: AA AA																																							
REUSABLE CONTAINER																																																											
9715200573										97152/0905										SIGNATURE/DATE										FRED HUDSON 7152										PRINTED NAME/TIME										FRED HUDSON 000									

INPUT DEVICE01000 OUTPUT DEVICE01001 Adobe Designer 8.0

Figure 2-22. Sample ISU, DD Form 1348-1A.

Go to the location indicated on the document. Here are four steps to ensure you select and pull the right property:

1. Ensure the bin label matches the information on the issue document.
  - a) Ensure the stock number and unit of issue on the property tag/label are correct.
  - b) Ensure proper stock rotation. In other words, select the oldest dated item in the location.
2. Select the quantity required to fill the issue document.
3. Ensure issue exception (IEX) processing is accomplished where necessary. For example, random length items (IEX 4—bar stock, sheet metal, plastic, fabric, lumber, etc.) sometimes require quantities to be issued in one continuous length.
4. Sign and date the issue document to show that you are the one that pulled the property, move the property, and then document for delivery to the customer.

### Redistribution and transfer documents

For redistribution and transfer documents, the computer prints out three warehouse copies and three cargo movement copies of the DD Form 1348-1A (fig. 2-23). The cargo movement copies will normally print in computer operations (except when they are the result of turn-in processing) and the warehouse copies will normally print on the warehouse terminal of the warehouse location assigned to them. If no warehouse location record is loaded, the warehouse copies will print out in computer operations.

1. TOTAL PRICE										2. SHIP FROM										3. SHIP TO																																							
UNIT PRICE										DOLLARS										CTS																																							
DOLLARS										CTS										FB3059																																							
FB2504										4. MARK FOR																																																	
5. DOC DATE										6. NMFC										7. FRT RATE										8. TYPE CARGO										9. PS																			
97153																																								U																			
10. QTY. RECD										11. UP										12. UNIT WEIGHT										13. UNIT CUBE										14. UFC										15. SL									
0																																																											
16. FREIGHT CLASSIFICATION NOMENCLATURE																																																											
17. ITEM NOMENCLATURE										UNCLASSIFIED										XF3																																							
COMPRESSOR, AIR41/2F																																																											
18. TY CONT										19. NO CONT										20. TOTAL WEIGHT										21. TOTAL CUBE																													
22. RECEIVED BY										Wright										23. DATE RECEIVED										7155																													
24. DOCUMENT NUMBER										850FFX(30-44)																																																	
25. NATIONAL STOCK NO. & ADD (6-22)																																																											
26. RIC (4-6)										01 (25-29)										CON CODE (71)										DIST (55-56)										UP (74-80)																			
MODE										TCN										DATE AVL SHP										TYPE HOLD CD										DATE SHP																			
OL BU 3SSW LGS										BLDG 431										BUCKL										CO 80011-9599																													
WHSED/SIGN-DATE:										Hollman										INSPECTOR:										7154																													
INPUT DEVICE01078										OUTPUT DEVICE01001																																																	

Figure 2-23. Sample SHP, DD Form 1348-1A.

A transfer is the movement of materiel to the DLADS. DLADS is a government agency that handles excess, unserviceable, and unusable materiel. They act a lot like a salvage yard, collecting, selling, or reutilizing salvageable material. A transfer of materiel to DLADS may occur because of any of the following reasons:

- Turn-in of unserviceable items meeting the disposal criteria.

- Replies to reports of customer excess.
  - a) Directed condemnations.
  - b) Condition condemnations.
  - c) Special instructions received from Air Force Materiel Command (AFMC), inventory managers, or the MAJCOM.

Transfers may be physically moved through formal LRS channels, but regardless of the mode of delivery, they must be tracked from the time of release to the time of receipt by the DLADS. The transfer may be directed or nondirected.

*Directed* transfers are replies to reports of customer excess that direct transfer to DLADS (A2\*, A4\*, FTR). They are input to the computer without manual review. If a customer has assets that need to go to DLADS and manual inputs are warranted, TRIC TRM is used to manually prepare and process *nondirected* transfers to DLADS.

### **DD Form 1348-1A, Issue Release/Receipt Document**

When the inputs are processed to transfer property to DLADS, either by input of a TRM or by a determination made under program control, all affected records are updated inline and a DD Form 1348-1A, (document identification code (DIC) A5J) is output. After storage and issue receive the A5J, they will select the materiel, sign and date the document, and forward the materiel and document to an inspector who will verify the identity, quantity, and condition of the materiel.

### **Demilitarization codes**

Before some items can be disposed of, they must be *demilitarized (DEMIL)*. DEMIL is necessary to preclude the unauthorized use of military items; destroy the military advantages inherent in certain types of property; render dangerous property harmless; protect the national interest; and preclude the compromise of security requirements. DEMIL is done according to the DEMIL code printed on the A5J document. This code is used to decide whether or not DEMIL is required and what method of DEMIL to use. Some of these codes are:

DEMIL Code	Explanation
A	DEMIL not required.
D	DEMIL by mutilation.
G	DEMIL, and if required, remove any sensitive markings or information.
X	Local determination is necessary.

If a code is available on the item record, the computer prints the code in clear text on the transfer to disposal (for example, DEMIL A). If no DEMIL code is assigned to the item record, the computer prints DEMIL X. When DEMIL X appears, a materiel management inspector must assign the proper code. He or she will draw a line through the code X and enter the proper DEMIL code. When an incorrect DEMIL code is found by an inspector, he or she will forward the documents showing the changed DEMIL requirements to records maintenance to resolve the coding conflict.

### **DLADS withdrawals**

Reutilization of excess property in DLADS is highly encouraged. The AO provides a letter to DLADS identifying the individuals authorized to authenticate requisitions for removal of assets from DLADS. When property is available in DLADS to fill a requirement, a special requisition (SPR) is submitted with a RIC of JBR. This routing identifier ensures the property is released to the customer at no charge. All property withdrawals from DLADS (regardless of the asset condition) must be for valid, documented official requirements. DLADS withdrawals are subject to the same criteria as requests from other DOD sources, i.e., all withdrawals must be properly accounted for and posted in the Materiel Management System.



### Effects of redistribution and transfer processing

Inputs of redistributions and transfers update the serviceable balance field on the item record or decreases/deletes the unserviceable detail record. For inputs resulting from a reply to customer excess, the applicable excess detail record is deleted and a *shipped, not credited* (SNC) detail record is added when credit is given for the shipment. Transaction histories are built for the item record decrease, for the unserviceable detail record decrease/deletion, and for SNC detail record additions.

Use the same procedures to select property for a shipment or transfer that you did to select for an issue. After pulling the property, enter your name and date on the DD Form 1348-1A. Then, forward the property and the document to an inspector (fig. 2-24).

1. TOTAL PRICE										2. SHIP FROM										3. SHIP TO									
UNIT PRICE										DOLLARS										CTS									
DOLLARS										CTS										FE3059 SZD038									
4. MARK FOR																													
5. DOC DATE										6. NMFC										7. FRT RATE									
97133										116250										Z									
8. TYPE CARGO										9. PS																			
10. QTY. RECD										11. UP										12. UNIT WEIGHT									
0																													
13. UNIT CUBE										14. UFC										15. SL									
16. FREIGHT CLASSIFICATION NOMENCLATURE										GENERAL CARGO																			
17. ITEM NOMENCLATURE										PILFERABLE										NF3									
18. TY CONT										19. NO CONT										20. TOTAL WEIGHT									
21. TOTAL CUBE																													
22. RECEIVED BY																				23. DATE RECEIVED									
SHIP TO ADDRESS: DPDO/OSB COM CTY800220										TIN E302AA70900033										CONDEMNED									
YEH REG NBR										ITEMS WITH NO ADP COMPONENTS										R920RW71330084									
THE DEMILITARIZATION/DISPOSAL HAS BEEN ACCOMPLISHED.																													
THERE IS/IS NOT RESIDUAL MATERIAL WHICH HAS BEEN DOWNGRADED TO																													
SCRAP/WASTE*																													
DML/DSP OFFICIAL:																													
WITNESS OFFICIAL (IF DOWNGRADED TO WASTE):																													
WHSED/SIGN-DATE:																													
INSPECTOR:										B. 7133																			

DD FORM 1348-1A, JUL 91 (EG) ISSUE RELEASE/RECEIPT DOCUMENT

14. DOCUMENT NUMBER  
8. SUFFIX (30-44)  
FE305971330084

25. NATIONAL STOCK NO. & SUFFIX (6-22)  
7430006639668

26. RIC (4-6)  
UN (72-9)  
CON CODE (71)  
DST (65-36)  
7430006639668

27. ADDITIONAL DATA

9713300504 97133/1151

INPUT DEVICE01060 OUTPUT DEVICE01060 Adobe Designer 8.0

Figure 2-24. Sample A5J, DD Form 1348-1A.

An inspector must physically check all shipments and transfers before the property can be sent off base. He or she will verify the condition of the property and stamp or sign and date the shipping document. When you have a classified or sensitive item to be shipped, three extra copies of the DD Form 1348-1A will be printed as a hand receipt for these items. Attach the hand receipt to the warehouse copies and process them along with the property, to cargo movement.

### Zero balance validations

Program control automatically identifies any issue (ISU), DOR, ship (SHP), and A5J document/transaction that reduces the item record serviceable balance to zero by printing the phrase SERV BAL = 0 on the output document. You can see an example of this phrase in figures 2-23 and 2-24. When you see this phrase on a document, validate the zero balance, and if stock remains, request a special inventory.

### Resolving warehouse refusals

Occasionally, you may go to select property for an issue or shipment and find that the storage location is empty. In another situation, you may not find the location empty, but the quantity you need to fill

the request is not sufficient. These situations are called warehouse refusals. Don't panic. There are ways to ensure the item is not misplaced in the warehouse.

- Fill the request from a reserve location if there is one.
- Check adjacent locations to see if the item might have moved or if it was stocked in the wrong location.
- Check the same and adjacent locations in the bin rows on each side of the location.
- Check the locator listing and FCS suspense file for a possible warehouse location change.
- Check with receiving or repair cycle support to determine the availability of the property.
- When all else fails, notify the warehouse or stock room supervisor of the shortage. He or she will take action to ensure that the item is actually missing before processing the document as a warehouse refusal.

---

### Self-Test Questions

After you complete these questions, you may check your answers at the end of the unit.

#### 612. General storage techniques

1. List two ways you can conserve storage space.
2. Explain what honeycombing is.
3. What system of storage ensures that the oldest items are issued before they become outdated?
4. What must warehouse personnel ensure is in place prior to storing property?

#### 613. Updating warehouse indicative data

1. Which warehouse change is used to indicate that an item in storage has deteriorated or become damaged?
2. Which warehouse change document is processed if the inspector determines that an item in storage has been misidentified by the manufacturer?
3. Which warehouse change document identifies a unit of issue change to an item?
4. Which warehouse change document may be output when, due to a change in the controlled item code (CIC), an item must be relocated to a more secure area?

**614. Pulling property**

1. What steps should you take when selecting an item for issue?
2. How many copies of DD Form 1348-1A are produced for shipments and transfers?
3. What is a transfer and what are the types of transfers?
4. What TRIC is used to transfer an item to DLADS?
5. What code printed on the transfer document is used to decide whether or not demilitarization (DEMIL) is required and what method to use?
6. What is a warehouse refusal?

---

**Answers to Self-Test Questions****608**

1. Storage space within any roofed structure.
2. General-purpose storage warehouse.
3. 32-50 °F (0 - 10 °C).
4. An open area designed for storing items that do not require protection from the weather.
5. Improved and unimproved.
6. A perimeter fence with a main gate serves as protection for the items stored and provides boundary limits that define the storage area.

**609**

1. Storage space.
2. The location of structural columns.
3. Work areas.
4. Item similarity.
5. Item popularity.

**610**

1. No fewer than 10 and no more than 11.
2. Stockrooms are sequenced from left to right and from front to rear; never use the letters I or O to identify a stockroom because they are easily mistaken for the numbers 1 and 0.
3. By a single capital letter. The letters will be placed at least every six feet along the bin row.
4. To load or assign a warehouse location, change a warehouse location, and delete a warehouse location.
5. To provide new storage space.

6. To aid in inventory and warehouse validation.
7. When you have an overflow of assets that can't be stocked in the primary location, and only as a last resort.

**611**

1. (1) To verify that the asset is in fact stored in the warehouse location stated on the item record.  
(2) To ensure that all item records indicating a serviceable balance are assigned a warehouse location.  
(3) To identify records with duplicate warehouse locations.
2. Storage personnel.
3. Each fiscal year.
4. Within 10 workdays of the start of an inventory cycle or sample inventory.
5. One day before starting the warehouse validation.
6. Process an FCS change or move the item(s) to the correct location based upon your research.
7. To identify items having a serviceable balance, but no warehouse location assigned to them, and a DOLT greater than three days.

**612**

1. Stack high as practical and compactly as possible.
2. Storing or removing items in a way that creates unusable areas of storage space in a stack.
3. FIFO.
4. All condition, identification, and hazardous tags/labels are in place on items.

**613**

1. FCC.
2. FCH.
3. FCU.
4. 1SC.

**614**

1. Ensure the bin label matches the information on the issue document. Ensure the NSN and the unit of issue on the property tag/label are correct. Select the oldest dated item in the location. Select the quantity required on the issue document. Sign and date the issue document.
2. Three warehouse copies and three transportation copies.
3. Movement of materiel to DLADS; directed and nondirected.
4. TRM.
5. DEMIL code.
6. When a needed issue item is not found in the location, or when the quantity needed is not sufficient to fill the request.

**Complete the unit review exercises before going to the next unit.**

## Unit Review Exercises

**Note to Student:** Consider all choices carefully, select the *best* answer to each question, and *circle* the corresponding letter.

**Please read the unit menu for unit 3 and continue ➔**

## **Student Notes**

## Unit 3. Hazardous Materiel and Miscellaneous Commodities

<b>3–1. Hazardous Material .....</b>	<b>3–1</b>
615. Identifying health-hazard items .....	3–1
616. Hazardous material storage.....	3–5
617. Monitoring health-hazard items.....	3–6
618. Disposing of hazardous property .....	3–8
<b>3–2. Miscellaneous Commodities .....</b>	<b>3–12</b>
619. Controlled items .....	3–12
620. Electronic sensitive devices and electrostatic discharge items .....	3–17
621. Functional check items .....	3–19
622. Shelf-life items .....	3–20
623. Suspect or unsuitable materiel .....	3–22
624. Counterfeit/discrepant materiel.....	3–22
625. Warranty or guarantee items.....	3–23
626. Other miscellaneous commodities .....	3–23

**T**HIS UNIT COVERS SOME SPECIALIZED COMMODITIES stored at AF installations, but it is not intended as a complete list. As you study this unit, you will learn about the key role inspectors play in the overall management of these items.

### 3–1. Hazardous Material

Many commodities used by the AF are hazardous or contain HAZMAT and have special requirements for storage and handling. The dangers posed by these items can be serious, and you need to be aware of the laws and regulations associated with them. These laws and regulations place special emphasis on communicating the hazards associated with these products because exposure could result in serious personal injury, permanent disabilities, and even death. Property and the environment could also be damaged or destroyed. No single functional area is exempt from these risks to health, safety, and property.

#### 615. Identifying health-hazard items

One step in minimizing risks associated with health-hazard commodities is the early identification, monitoring, inspecting, and reporting of these items.

It's essential that HAZMAT be accurately identified to ensure proper storage, handling, and disposal. Federal regulatory agencies require manufacturers and distributors to identify the physical, health, and environmental hazards of their commodities in several ways. Placards, markings, safety data sheets (SDS), and warning labels are just some of the means used to convey this information. Warning labels are important since they are usually the first indication to users that hazards are associated with the products. Some of these warning labels are shown in figure 3–1.

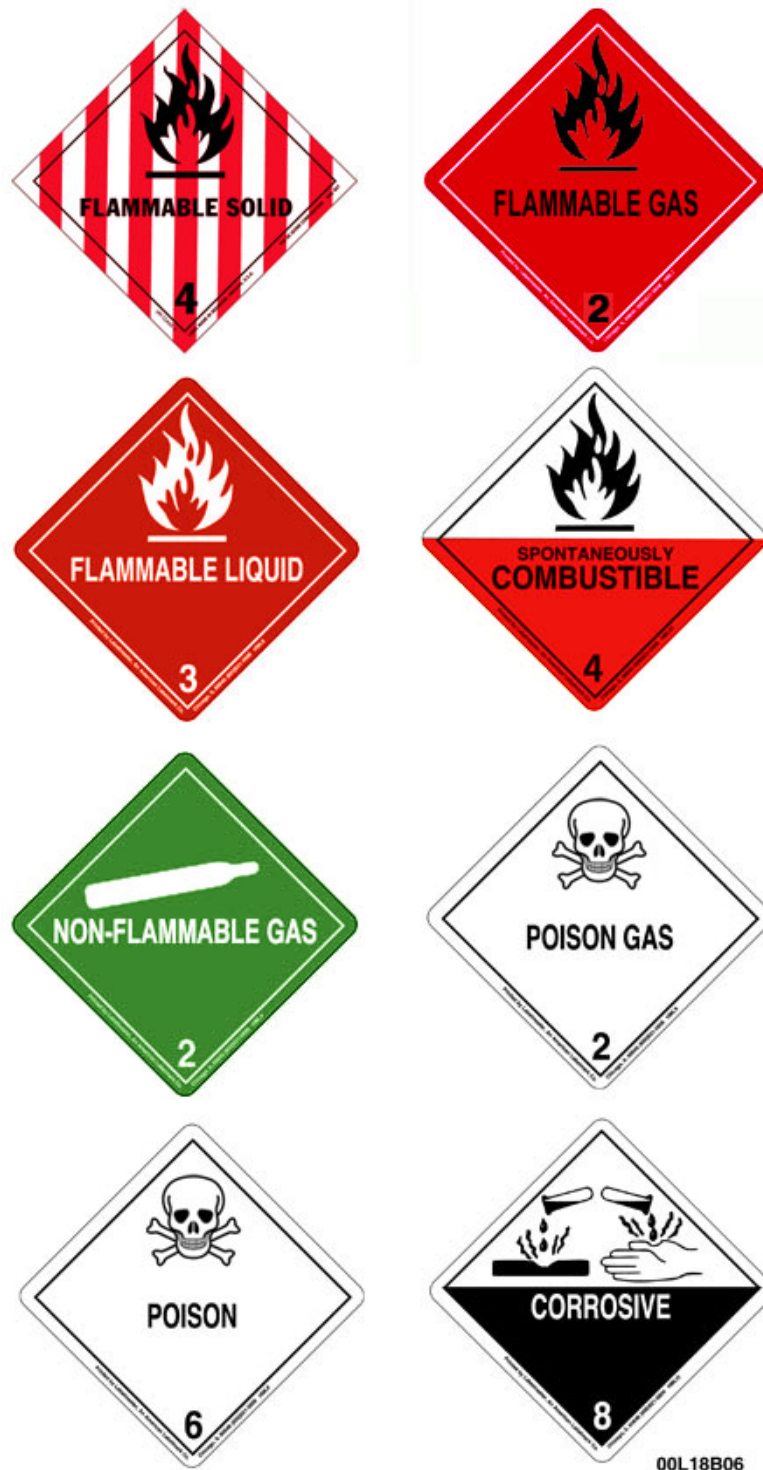


Figure 3-1. Examples of warning labels.

### *Item record identification*

The best time to identify a potentially hazardous item is when the item record is initially loaded. Federal Standard 313, *Material Safety Data, Transportation Data, and Disposal Data, for Hazardous Materials Furnished to Government Activities*, contains two tables that can be used as guides to identify potentially hazardous items.



Table I	Contains federal supply classes (FSC) in which most items are hazardous and require a safety data sheet.
Table II	Contains additional federal supply groups and lists some examples of items that may be hazardous within those groups.

Using Federal Standard 313 and Air Force Handbook (AFH) 23-123, Volume 2, Part 1, *ILS-S, Materiel Management Operations*, as a guide, materiel management inspectors must ensure that all potential health-hazard items are assigned IEX code 9, or a health-hazard flag (HHF). These codes are described below.

Code	Description	Explanation
IEX 9	Health-hazard item	Identifies an item that is a serious health hazard and requires issue control.
HHF	Health-Hazard Flag	Assigned to the item record when bioenvironmental engineering services (BES) decides that IEX code 9 does not apply at a specific installation. The HHF eliminates repetitive review of the same item and ensures all items in the categories identified in the referenced publication have been screened, identified, and controlled.

### Safety data sheets

Safety data sheets (SDS) provide another means of identifying health-hazard items. An SDS is a document that identifies the hazards and safety measures associated with a particular product. Figure 3-2 shows an example of an SDS. Using organizations must ensure the SDS is available and accessible in the work area to personnel during each work shift. SDSs are kept in many forms, including printed operating procedures or in electronic format, and may be designed to cover groups of HAZMAT in a work area where it may be appropriate to address the hazards of a process rather than of individual hazardous chemicals. However, the commander will ensure that, in all cases, the required information is provided for each chemical and is readily accessible to all personnel during each work shift. SDSs may be kept in a central location at the primary workplace as long as the information is available to employees immediately in event of an emergency. Keep in mind, the key concept here is *ready access*.

### Reporting

The determination of which IEX code (or flag) should be loaded on the item record is the decision of BES. It is the inspector's job to report potential health-hazard items to BES and ensure the codes are loaded after the determination has been made. The BES will review the items to verify the correct IEX codes are loaded on the item record.

It is not possible to list all hazardous items received into the LRS complex. Therefore, to protect life and property adequately, inspectors must be alert to potential HAZMAT, as it is received. When suspected hazardous commodities are received into the materiel management account that have not been reviewed by BES, the inspector will notify BES and the base safety office by letter, telephone, or fax machine, as determined locally, and provide them with a complete list of chemical contents and nomenclatures.

Once a month, an inspector will run a utility program to identify item records that do not have an IEX code or HHF assigned. The inspector will provide the complete chemical content and nomenclature for each item on the output listing from the utility program. The listing is furnished to BES and suspended to confirm they assign either an IEX code or HHF to each item. If a potentially hazardous item has been reviewed and the determination has been made that the item is not hazardous, the item record is flagged (with the HHF) as having been reviewed to prevent unnecessary future reviews.



## Safety Data Sheet



### 1 - Chemical Product and Company Identification

<b>Manufacturer:</b> WD-40 Company <b>Address:</b> 1061 Cudahy Place (92110) P.O. Box 80607 San Diego, California, USA 92138 -0607 <b>Telephone:</b> <b>Emergency only:</b> 1-888-324-7596 (PROSAR) <b>Information:</b> 1-888-324-7596 <b>Chemical Spills:</b> 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)	<b>Chemical Name:</b> Organic Mixture  <b>Trade Name:</b> WD-40 Aerosol  <b>Product Use:</b> Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion  <b>MSDS Date Of Preparation:</b> 3/11/10
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### 2 - Hazards Identification

#### Emergency Overview:

**DANGER!** Flammable aerosol. Contents under pressure. Harmful or fatal if swallowed. If swallowed, may be aspirated and cause lung damage. May cause eye irritation. Avoid eye contact. Use with adequate ventilation. Keep away from heat, sparks and all other sources of ignition.

#### Symptoms of Overexposure:

**Inhalation:** High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.

**Skin Contact:** Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.

**Eye Contact:** Contact may be irritating to eyes. May cause redness and tearing.

**Ingestion:** This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.

**Chronic Effects:** None expected.

**Medical Conditions Aggravated by Exposure:** Preexisting eye, skin and respiratory conditions may be aggravated by exposure.

#### Suspected Cancer Agent:

Yes No X

### 3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent
Aliphatic Hydrocarbon	64742-47-8	45-50
Petroleum Base Oil	64742-58-1	<25
	64742-53-6	
	64742-56-9	
	64742-65-0	
LVP Aliphatic Hydrocarbon	64742-47-8	12-18
Carbon Dioxide	124-38-9	2-3
Surfactant	Proprietary	<2
Non-Hazardous Ingredients	Mixture	<10

### 4 - First Aid Measures

**Ingestion (Swallowed):** Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.

**Eye Contact:** Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.

Figure 3-2. Sample SDS.

## 616. Hazardous material storage

HAZMAT has characteristics that could require them to be specially stored or handled to prevent risk to personnel or the facility in which they are located. HAZMATs are stored according to compatibility. Contact between incompatible materials will produce a reaction such as fire, explosion, polymerization, boiling or spattering, severe heat, or release of poisons or hazardous gases. In this lesson, you will learn the storage requirements of three of the most common types of hazardous items:

- Corrosives.
- Flammables.
- Low HAZMATs.

**CAUTION:** Warehouse workers and MHE operators must wear the proper safety clothing and equipment when handling HAZMAT.

### Corrosives storage

This type storage area is used to store liquid or solid corrosive materials. These materials may be either acidic or alkaline, in addition to being corrosive. Materials packaged and labeled as corrosive have a destructive effect on human tissue and both steel and aluminum.

Corrosives should be stored on pallets that are compatible with the material being stored. Pallet racks or box pallets may be used to store corrosive solids. The storage arrangement should permit constant surveillance and monitoring to detect leaking containers. When corrosive materials are stacked in pallet racks, do not place incompatible materials above or below each other. Acids and alkalis are incompatible corrosives that should be separated by a wall or an aisle, equal to or greater in width than the pile heights of the corrosives.

Corrosive storage near combustible materials must be avoided. Corrosives must be kept above their freezing point (32°F) to avoid rupture of carboys and glass containers. Other corrosives must be protected from prolonged exposure to heat. Always store organic acids under automatic water sprinklers. Sprinkler protection is not required for mineral acids. Segregate combustible and oxidizing acids from each other and from other combustible or incompatible materials.

**NOTE:** Although a building or area may be dedicated to corrosive storage, each material stored therein must be evaluated individually to determine its special storage and/or safety requirements. For example, peroxyacetic acid, a strong oxidizer, must never be stored on wooden pallets since a leak could cause a fire or explosion. On the other hand, never store hydrochloric acid on a metal pallet since a leak could cause explosive hydrogen vapors to form.

### Flammable storage

Flammable and combustible liquids, solids, aerosols, and flammable liquids with corrosive properties must be stored in a flammable storage area.

Strictly speaking, flammable and combustible liquids do not cause fires; they are merely fuel. Flammable vapors, in the presence of air and an ignition source, cause fires. The principal hazard from storing closed containers containing flammable liquids comes when the containers rupture due to increased internal pressure when they are exposed to fire. Release and vaporization of flammable liquids add to the intensity of a fire, and could cause the rupture of other containers, causing the fire to spread rapidly. Flammable solids include chemicals that are solids at 100°F or above. Flammable aerosols include flammable liquids in small, pressurized spray cans, such as hair spray or paint that have a demonstrated ability to rupture violently from internal pressure when heated in a fire. Upon explosion, these items are fireballs that become rocketing projectiles that leave a trail of burning liquid. Aerosol products have been directly involved in, and are often responsible for, extensive and costly warehouse fires.

Store aerosol cans in a room separate from other flammables, if space permits. A barrier must separate aerosol cans from other flammables, and it needs to be able to contain aerosol cans should they become self-propelled projectiles and airborne sources of ignition. If aerosol cans must be stored in the same area with other flammables, then a wire mesh, expanded metal, or chain-link type of material should be used as a floor-to-ceiling or surrounding cage-type barrier. If access through the barrier is required by MHE to service pallet racks, use a self-closing gate to maintain the effectiveness of the barrier.

Flammable storage areas at facilities include detached, flammable-liquid warehouses, and areas within general-purpose warehouses that have been modified to make them acceptable. Flammable liquids in containers are stored in pallets or pallet racks subject to quantities and height limitations. Single or double storage racks must be used. Every inside storage room must have either a gravity or mechanical exhaust ventilation system capable of completely changing the air within the room at least six times per hour.

Storing flammable liquid products in metal drums in outdoor storage is not recommended. Pressure buildup in the drums due to thermal loading from the sun, and the likelihood of subsequent rupture or drum failure due to corrosion or handling, poses a risk. This could create a significant spill containment and environmental hazard. The cost of cleanup, and the negative public reaction to HAZMAT spills, far exceeds the benefits of outdoor storage.

### **Low-hazard materials storage**

Some examples of low-hazard items are low-risk acids and pesticides, poisons, petroleum products, and certain batteries. For purposes of this lesson, it would be impossible to provide a detailed listing of all the products involved and the rationale for their classification as low-hazard materiel. Low hazard is generally assigned based on physical and chemical properties of the materiel and a review of the contents listed on the SDS with consideration being given to the hazard manifested to personnel and the environment while in storage. Such a decision relies on the professional judgment and experience of the person reviewing the relevant data and assigning the hazard characteristic code. Although not always regulated by the Department of Transportation (DOT) for transportation purposes, these materials can become hazardous under circumstances other than routine storage and handling.

Under certain circumstances, individual services or agencies may allow small quantities of selected HAZMATs to be stored in general-purpose storage areas when a specific mission may otherwise be adversely impacted. Avoid accumulating large quantities of these miscellaneous HAZMATs, as they may create high-risk storage situations. In addition, local, state, and federal occupational and environmental regulations must be followed.

Storage aids should offer the most practical and efficient use of space while simultaneously protecting the material from physical damage. Such aids may consist of pallet racks, pallet support sets, bins, cantilever racks, drive-through racks, and gravity flow racks. Bulk storage space needs to be available to accommodate single-height, palletized loads of material that do not require storage aid support. Limit the stacking height of material to be stored based on ceiling heights, materiel weight, floor load-weight limitations, and minimum clearance required to accommodate fire suppression equipment.

### **617. Monitoring health-hazard items**

Focus your inspection program on detecting minor deficiencies before they become significant, thus providing time for corrective actions before the materiel becomes unserviceable or unusable and requires disposal as hazardous waste.

### **Inspecting**

Hazardous items must go through a thorough inspection upon receipt and before being placed in storage. This entails inspecting the condition of the container to confirm it is sealed and in good

condition. If damage or leaks are apparent, do not accept the materiel from the shipper. Verify that the labeling and markings on each container agree with the shipping document. Also, make certain the SDS is on hand or in the container.

After the items are placed in storage, reinspect them according to locally established guidelines for unsatisfactory conditions or deficiencies. The potential for spills and chemical releases can be significantly reduced by early detection of unsatisfactory conditions, or deficiencies caused by the materiel's inherent deterioration characteristics, improper storage methods, or expiring shelf life.

The importance of having an effective shelf-life program for HAZMAT cannot be overemphasized. Certain products can become increasingly hazardous under prolonged and unfavorable storage conditions. Calcium hypochlorite, for example, is unstable and has a very limited shelf life, even under optimum storage conditions. If the decomposition process is allowed to continue unchecked, the materiel will, under the right circumstances, present a fire and/or explosion risk. Storage personnel performing routine surveillance should be alert for expired shelf-life dates or for inspection/test dates that have passed. Also, verify that all hazardous items are assigned a shelf-life code. If a shelf-life code has not been assigned to an item that is, in fact, a shelf-life item, it could deteriorate in storage and, in turn, introduce unnecessary safety or health risks and disposition/disposal costs.

Activities using chemicals and other shelf-life items that have short lives are authorized, on an optional basis, to use a color coding system that makes expiration dates more readily apparent. One system that can be used is to have two sets of decals like those used on vehicles. Each set is a different color to designate the date of manufacture or last inspection, and the date the item is due inspection. Each color has decals with numbers from 1-12 to designate the month of expiration.

Inspection personnel must also monitor the storage conditions of chemical and petroleum products. To do this, develop a local checklist to make sure containers, drums, tanks, lines, and equipment used to store chemicals and chemical products are inspected on a monthly basis. These local checklists need to include the specific storage areas of chemicals and the location or serial numbers of the equipment used in storing chemicals. Document the results of the monthly inspections on the checklist and maintain this information for a minimum of one year.

### **Monitoring**

As an inspector, check, and request the retest of, petroleum products and certain chemicals and chemical products. Inspect visually or retest all chemicals and chemical products, whether packaged or bulk. In the visual inspection, look for discoloration, changes in composition, and broken or leaking packages. Those chemical products determined to be defective through the visual inspection will be identified, segregated, sampled, and submitted for testing as appropriate.

Aircraft and ground equipment lubricants and oils are not governed by shelf-life codes, but by retest-cycle dates. Aircraft jet engine oils must be used within 36 months of the date of packaging or the date of the last test. When chemical and petroleum products reach their retest dates, process a condition change (TRIC FCC) input to the Materiel Management System. This will suspend the outdated materiel on an unserviceable detail and prevent reissue.

To prevent unnecessary testing, the AF retains data on overage products that have been tested or condemned. Obtain this retest data before locally condemning or disposing of outdated materiel. If testing has already been conducted on the batch or lot in question, retain the materiel on the unserviceable detail until the test results are received.

After testing, if the materiel is found to be serviceable, retag and/or update the materiel being suspended, then process an FCC to return the materiel to a serviceable condition. When materiel is unserviceable, take the action prescribed in the notification. If there are no instructions for disposal, follow the directives of the appropriate TO or local directive.



Materiel management personnel are responsible for monitoring all health-hazard items from the moment they are loaded in the materiel management system through the time they are received, stored, issued, or transferred, until they are finally disposed of. Materiel management personnel use the Enterprise Environmental Safety and Occupational Health Management Information System (EESOH-MIS) for tracking health-hazard items.

### **Enterprise Environmental Safety and Occupational Health Management Information System**

The EESOH-MIS is the AF source for HAZMAT data and pollution prevention information. EESOH-MIS provides direct Enterprise Environmental Safety and Occupational Health (EESOH) information management to support active AF units, the Air National Guard, and Air Force Reserve, during peace and war, at fixed main bases, bare bases, and deployed locations. It functions as an interoperable, user-friendly system providing accessible information that expedites effective force beddown and other EESOH support during normal and contingency operations. EESOH-MIS uses state-of-the-art technology to achieve accurate and real-time work management information that, when combined with financial information, supports the customer in all operational environments. The goal of the EESOH-MIS program is to manage, track, and report HAZMAT usage by guaranteeing only authorized personnel are allowed to order and receive HAZMAT. In addition, the system provides oversight to HAZMAT managers, of orders placed in the materiel management system, to confirm that only the minimum amounts of material required are ordered and that material ordered is used only for its authorized purpose.

EESOH-MIS performs four major HAZMAT pharmacy functions:

- Record keeping.
- Controlling inventory.
- Controlling waste.
- Generating reports.

EESOH-MIS supports the requirements of the HAZMAT pharmacy by providing:

- Single point of authorization for use of HAZMAT.
- Control of distribution of HAZMAT.
- Tracking/reporting system.

Requests for HAZMAT requires BES approval before issue. Approval is based on factors such as the process the item is used in, potential hazards the chemical presents, personal protection equipment available in the shop, and training received by the user.

With the concurrence and assistance of BES, the materiel management inspector may develop a computer file of preapproved organizations and shops authorized to use specific health-hazard items (IEX code 9) by stock number. From this file, a health-hazard approval listing (HHAL) is produced that identifies those shops authorized to be issued IEX code 9 items and is used for the BES semiannual review and approval. After it is approved by BES, the HHAL will be the AO's authority to issue IEX code 9 items without obtaining BES certification for individual transactions. The listing will contain the stock number, organization, and shop codes of approved activities, date of approval, and any exception information deemed necessary by BES. Keep the approved HHAL until it is replaced. Additions and deletions to the HHAL are made only when approved by BES.

### **618. Disposing of hazardous property**

Environmental stewardship has become an essential part of the AF mission. Proper disposal of hazardous property is essential to the protection of human health and the environment. Hazardous disposal can generally be grouped into two categories—excess and waste.

**Excess**

Excess exists where a serviceable quantity exceeds requirements. An example of excess is when a shop orders 20 gallons of hazardous-coded paint, but only uses 10 gallons. They must report, or TIN, the unused quantity to the HAZMAT pharmacy. All organizations are responsible for turning in serviceable excess and unopened shelf-life materiel to the HAZMAT pharmacy. The pharmacy will then review residual materials upon receiving a new requirement for possible free issue instead of placing a new demand on supply.

**Waste**

Hazardous waste is unserviceable materiel that has deteriorated, dried, hardened, or otherwise become contaminated or unusable. Some examples of the hazardous waste generated by AF installations include degreasing solvents, metal plating solutions, industrial wastewater treatment plant sludges, paint thinners, lead-acid batteries, paint strippers, and some waste oils. Waste oils may be hazardous due to the presence of contaminants or IAW with specific state laws.

The Environmental Protection Agency (EPA) promulgated regulations that hold customers who generate waste liable for its proper disposal under a “cradle to grave” concept. Before turning in property, it’s recommended that customers coordinate with DLADS. This will enable DLADS to schedule the TIN and provide customers with an opportunity to obtain information regarding any recent changes to existing TIN requirements. The organization that generates hazardous waste is responsible for the costs of disposing of it.

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**Self-Test Questions**

**After you complete these questions, you may check your answers at the end of the unit.**

**615. Identifying health-hazard items**

1. What publication can be used as a guide to identify potentially hazardous items?
2. How are potential health-hazard item records marked?
3. An IEX code 9 is assigned to what type of item?
4. What is the purpose of an HHF?
5. What information does an SDS provide?

6. Who determines which IEX code or flag should be loaded on the item record?

**616. Hazardous material storage**

1. How should corrosives be stored?
2. What type of acids must be stored under automatic water sprinklers?
3. What is the principle hazard from storing closed flammable containers?
4. What is the proper way of storing aerosol cans and why?
5. Why is outside storage of flammable liquid products in metal drums not recommended?
6. What are low-risk acids and pesticides, poisons, petroleum products, and certain batteries examples of?

**617. Monitoring health-hazard items**

1. What should storage personnel be alert for when performing routine storage area surveillance?



2. How frequently should the storage conditions of chemical and petroleum products be inspected?
3. For how long are completed chemical monthly inspection checklists maintained?
4. What governs the testing of aircraft and ground equipment lubricants and oils?
5. What is the goal of the ESSOH-MIS?

**618. Disposing of hazardous property**

1. What is the responsibility of all organizations that have excess serviceable shelf-life hazardous materials (HAZMAT)?
2. Why does the HAZMAT pharmacy review residual materiel upon receiving a new requirement for HAZMAT?

## 3-2. Miscellaneous Commodities

Many of the assets stored in the LRS require special attention and monitoring. Some of these assets require additional security measures while others must be inspected for shelf life or serviceability.

### 619. Controlled items

Controlled items are scarce, exceptionally costly, highly technical, or have a high degree of desirability or resale value. Commanders are responsible for administering adequate physical security measures for these items. There are three types of controlled items:

Type	Explanation
Classified	Requires protection in the interest of national security.
Sensitive	Requires a high degree of protection and control due to statutory requirements or regulations such as narcotics and drug abuse items; precious metals; items which are of high value, highly technical, or hazardous; arms, ammunition, explosives, and demolition materiel.
Pilferable	Materiel having a ready resale value, civilian utility, or application as personal possessions, and therefore are especially subject to theft.

The CIC on the item record identifies the item as classified, unclassified, sensitive, or pilferable. Some of these codes are:

CIC	Explanation
C	Confidential.
J	Pilferable.
R	Controlled substance (precious metals).
S	Secret.
T	Top Secret.
U	Unclassified.
*	Pilferable (locally assigned).

### Classified

Only personnel authorized by the AO are allowed to handle classified items. If you receive these items from the cargo movement function, cargo movement personnel will verify your identification against the classified receipt listing before allowing you to sign for them. Classified materiel receives priority handling throughout the receiving process. It must never be left unattended by the person who accepted it from the cargo movement function. The documentation is over stamped or handwritten in red with the words “classified item.” However, the documentation is not classified, only the item is. Local procedures dictate the handling of these items within the LRS complex, but under NO CIRCUMSTANCES will classified items be left with an unauthorized individual or in an unauthorized area.

Keep classified items separate from other materiel. The best method is to store them in a separate building with a higher degree of physical protection than other buildings. When a separate building is not available or where its use is not warranted by the quantity of classified storage; a room, cage, or crib may be constructed within a warehouse building. All areas that contain classified materiel must be secured by means of an approved locking system. This includes any temporary storage space used for in-transit classified materiel. In addition to storing classified items separately from other materiel, classified materiel should also be segregated in storage from sensitive materiel. This further segregation will prevent compromise of classified materiel. There are three levels of classified materiel—Top Secret, Secret, and Confidential.

### ***Top Secret***

Unless otherwise authorized in writing, store Top Secret materiel in a class A vault under the control of a designated primary or subordinate Top Secret control officer. A class A vault is a controlled area with an alarm. The alarm must give security forces sufficient time to prevent the compromise of classified materiel.

### ***Secret and Confidential***

Store Secret and Confidential materiel in a class B vault or secure storage room. Storage rooms used for storage of this materiel must meet the supplemental safeguards outlined by local authorities.

### ***Sensitive and pilferable items***

Only authorized personnel can handle and store sensitive items and then only in areas approved for storage and processing according to published directives. A DD Form 1387-2, Special Handling Data/Certification, is attached to the outside of a sensitive item container for routing and control purposes.

Sometimes a separate processing area is set up to check-in and process pilferable items. There are specific procedures established for protection of pilferable items IAW AFI 31-101, *Integrated Defense (ID)*. However, the AO establishes procedures to handle any discrepancies that could arise. When pilferable items are distributed throughout the LRS complex, the AO may exercise the option to obtain a signature of release when the items move from one section to another.

Sensitive or pilferable items are not ordinarily stored in the same area as classified materiel. However, when instances require them to be stored together, the entire storage area will be classified, and controls applied will be equivalent to the highest security classification of any item inside.

### ***Precious metals***

Precious metals are sensitive items that contain gold, silver, and/or platinum. They are identified on the item record with CIC R. Store precious metals in a security cage. They are not to be included in bench stock unless specifically authorized by the unit commander who controls and manages the bench stock.

All AF activities that manage, receive, handle, store, issue, requisition, purchase, ship, or contract items containing precious metals must follow the policies and procedures in AFI 23-101, *Air Force Materiel Management*, Chapter 6, Materiel Returns. The precious metals recovery program (PMRP) was established to promote the economic recovery of precious metals from excess and surplus materiel.

### ***Inspecting precious metals***

The materiel management flight's chief inspector is the installation PMRP manager and focal point for all matters concerning PMRP. The PMRP manager maintains a list of the organization's PMRP monitor's, and their alternate's, names, phone numbers, locations and, as applicable, type of recovery equipment, kind of precious metal scrap generated, and the kind of fine precious metals and high-precious-metals-content items used. The PMRP manager visits each participating activity at least once every 24 months to review operations, documentation, and the activity's adherence to overall program requirements. A report of findings will be maintained and corrective action on discrepancies will be tracked through completion.

### ***Monitoring precious metals***

DOD activities must participate in the PMRP. DOD activities must identify the type, quantity, and location of precious metals and assign a precious metal indicator code (PMIC) to any item containing precious metals.

Defense Logistics Agency (DLA) is notified to verify that such items are included in the federal catalog records. When jointly agreed upon or approved by DLADS, DOD activities are responsible for transferring precious-metals-bearing metals to the nearest DLADS facility.

### **Equipment items**

Equipment items should be managed and properly accounted for at all times. Property records for equipment items will be kept current and shall provide a complete audit trail of all transactions; e.g., a transaction-based history of asset activity. Accountable property records shall reflect the property's current status and location until its disposition is completed. A separate holding area is used for equipment items returned to the LRS. Due to the nature of the items, this allows them to be monitored and stored away from stocked items. Once an equipment item is returned to the LRS, the equipment accountability element (EAE) will contact a customer for whom a due-out exists, to verify the item being returned will be acceptable for their requirements. If no due-outs exist, EAE will transfer the serviceable item to the existing base authorization. When there are no unfilled base requirements, EAE will then obtain disposition instructions from the item manager (IM). When disposition instructions are provided, EAE will ensure the correct Department of Defense activity address code (DODAAC) is annotated on the AF Form 2005.

### **Lock and key controls**

When key-operated, high-security padlocks are used to store controlled materiel, the keys must be controlled as is classified information, with a classification equal to that of the information being protected. Other key controls are:

- Appoint a key and lock custodian.
- Maintain a key and lock control register to identify keys for each lock and their current location and custodian.
- Audit keys and locks each month.
- Inventory keys with each change of custodian.
- Do not remove keys from the premises.
- Protect keys and spare locks in a secure container.
- Change or rotate locks at least annually; change or rotate their replacements upon the loss or compromise of their keys.
- Prohibit the use of master keys.

When combination padlocks are used to store classified materiel, combinations are changed only by individuals having that responsibility and possessing official security clearance under the following circumstances:

- When the combination padlock(s) are placed in use.
- Whenever an individual knowing the combination no longer requires access.
- When the combination has been subject to possible compromise.
- Combinations must be at a minimum, changed annually.
- When the combination padlock(s) are taken out of service.

Normally, the combination of a security vault or container should never be physically recorded. However, when circumstances make it desirable to record a combination, to provide for efficient operation and for emergencies, unit commanders are authorized to record the combination in a central location.

## Security documentation

[illegible]

100

## **620. Electronic sensitive devices and electrostatic discharge items**

The current trends in technology are toward greater complexity of electronic parts, assemblies, and equipment. These electronic sensitive devices (ESD) have highly sensitive characteristics and delicate, miniaturized construction, which makes them susceptible to damage from electrostatic discharge. One of your responsibilities as an inspector is to protect items against this kind of damage.

### **Identifying ESD items**

Certain labels are used to mark the unit, intermediate, and exterior packs of ESDs. Unit packs are marked with an ESD unit pack label (fig. 3-5). The ESD symbol and lettering are in black on a yellow background. Place this label on the identification marking side of the unit pack. If marking space is insufficient, place this label on the back of the unit pack.

Intermediate and exterior packs are marked using a yellow caution label with black lettering. Figure 3-6 shows an example of this Optional Form (OF) 87, Attention-Electrostatic Sensitive Devices (label). One of these 2×2-inch labels is placed on one side of each intermediate container. Two 4×4-inch labels are placed on each exterior container, one on the identification marking side (or surface) and one on the opposite side of each shipping container exceeding one-half cubic foot.

The ESD items can also be identified by type cargo code 3 annotated on the item record. When a physical inspection of an item suggests that the type cargo code of that item is wrong, submit a message or letter to the transportation manager at the air logistics complex (ALC) for that particular item. Handle any electronic device received in ESD protective packaging as an ESD item until proper determination of status is made.

### **Storage and handling of ESD**

Handle these items with care to avoid damage from an accumulated static charge. ESD items are not to be commingled with other items in storage or when transported to the customer. Instead, these items are wrapped in nonstatic materiel to cut down on the occurrence of electrostatic damage. It's your responsibility to ensure these items are given proper handling and are not commingled with other items.

### **Scheduling and testing ESD items**

There are times when the serviceability of an ESD item is questionable. If the item is on the item record, process it to the maintenance function for testing using TRIC ISU and activity code C. If the asset is on a detail record, process it to the maintenance function using TRIC MSI and activity code C. Prepare a TIN according to whether the maintenance activity finds the ESD item serviceable or unserviceable. Never attach documentation to ESD property using staples or any kind of metal fasteners.

### **Monitoring ESD items**

Everyone monitors ESD items. The following guidelines are used to monitor ESD items through the Materiel Management System:

- Receiving personnel will not open packages containing ESD items. Personnel should refer any discrepancies to an inspector.
- If an inspector must open the unit pack of an ESD item, it should be done only in an ESD protective area. This area usually consists of a grounded workbench, a personnel wrist strap, a grounded floor mat, and grounded tools and equipment, all connected to a common ground. Figure 3-7 shows an example of an ESD packaging workstation.
- Verify ESD items are carried to and from the parts stockroom area in ESD protective packaging and conductive tote boxes or trays.
- Ensure all ESD items are properly labeled and packaged in ESD protective materiel.





Figure 3-5. Sample ESD unit pack label.



Figure 3-6. Sample ESD caution label (intermediate and exterior packs).

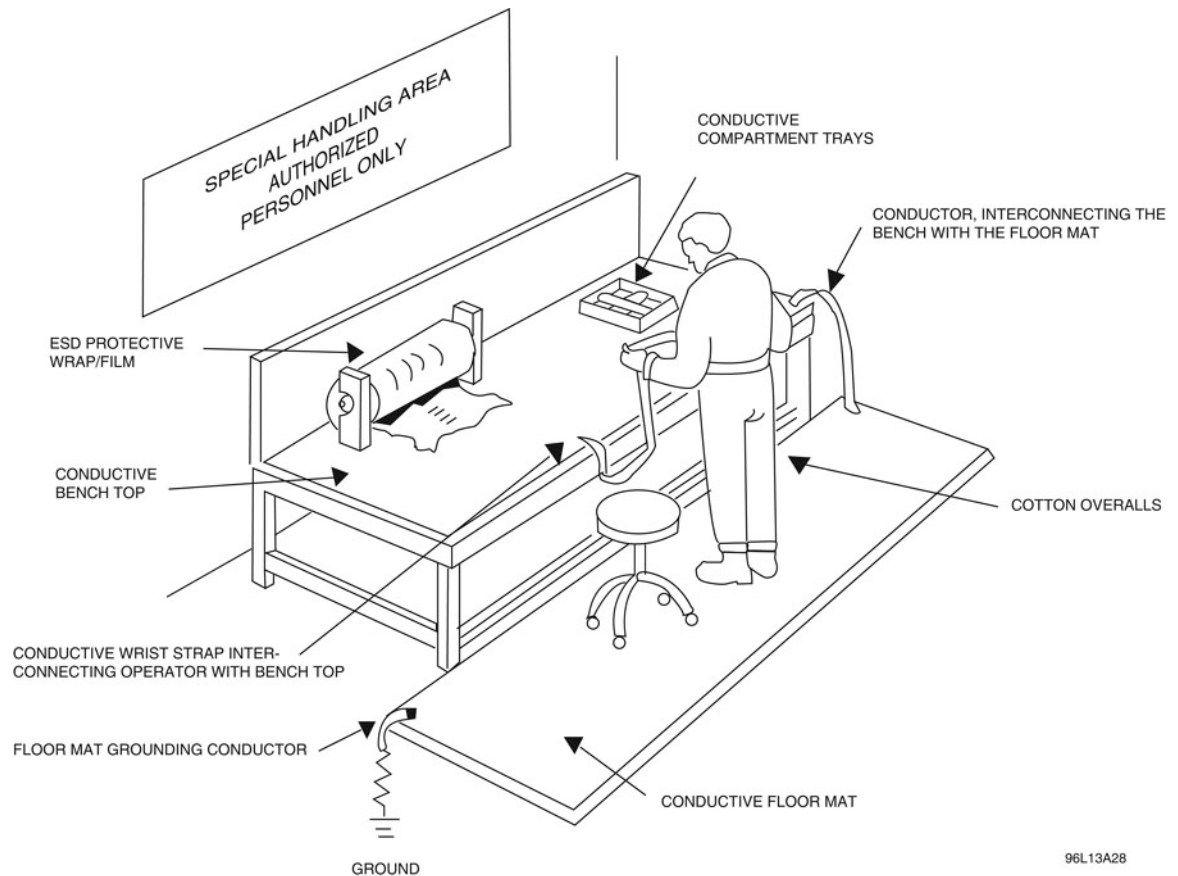


Figure 3-7. ESD packaging workstation.

## 621. Functional check items

Some items stocked in the LRS require calibration or a serviceability check before they can be used by your customers. These items are called functional check items.

### Identifying functional check items

Functional check assets fall into two categories:

- Assets requiring an extensive functional check after issue for installation.
- Assets identified by an inspector whose serviceability may be doubtful due to apparent mishandling while in stock or being dropped.

A maintenance point of contact (POC) (an individual jointly agreed on by the AO and chief of maintenance) prepares a list of items requiring an extensive functional check before their installation and gives the list to the materiel management inspector. Normally, the list is in the form of a signed letter.

After receiving the listing, the materiel management inspector processes an inquiry to determine the location of all assets on the listing, including interchangeables. The inspector physically inspects these assets to determine if a functional check was already performed by the local maintenance activity. If a functional check is warranted, process a C activity code issue (ISU) to the organization and shop. Appearance of a base maintenance inspector's stamp or signature is proof of a functional check. Process TRIC FCD inputs to load or delete the functional check flag indicator (F) for those items identified on the listing. An FCD input changes all master and interchangeable items in the group with the same system designator.

### Monitoring functional check items

At least semiannually, run a functional check listing. Forward a copy of the listing to the maintenance POC. When you receive the listing, screen it against the previous listing and with the letters submitted by the maintenance POC when reasons for differences are unknown. You need to research items that were added or deleted from the previous list (when a request from the maintenance POC is not on file). Contact the maintenance POC for verification. When you receive requests to add or delete functional check items, you can either manually update the present listing or request a new one, depending on the number of changes required. Keep all listings and letters submitted by the maintenance POC on file until they are superseded or the items no longer require a functional check. Provide a copy of the functional check listing to the receiving function for use during degraded operations.

### 622. Shelf-life items

A shelf-life item is an item of supply that has deteriorative characteristics. Initiate a useful shelf-life control program at each storage activity to make the best use of assets before their shelf life expires.

#### Identifying shelf-life items

There are two types of shelf-life items:

- Type I—(alpha codes)—Items with a definite *nonextendable* shelf life.
- Type II—(numeric codes)—Items with a shelf life that may be extended after completion of inspection, test, or restorative action.

Every item of supply is assigned a shelf-life code based on technical evaluation of its stability and durability. Shelf-life codes and their periods of shelf life are shown in the following table.

Shelf-life Period	Type I	Type II	Shelf-life Period	Type I	Type II
Nondeteriorative	0	0	18 Months.	K	5
1 Month	A		21 Months.	L	
2 Months	B		24 Months.	M	6
3 Months	C	1	27 Months.	N	
4 Months	D		30 Months.	P	
5 Months	E		36 Months.	Q	7
6 Months	F	2	48 Months.	R	8
9 Months	G	3	60 Months.	S	9
12 Months	H	4	Military essential and medical items with a shelf life greater than 60 months.	X	
15 Months	J				

#### Storage and issue of shelf-life items

Shelf-life items should be consolidated in one central stockroom to the maximum extent possible. Consolidation will facilitate efficiency during inspection or surveillance actions by reducing the amount of travel time between locations. It is not necessary to segregate shelf-life items from other assets in storage. Storage must make sure that the label on each item clearly states the expiration date.

When selecting items for issue, the oldest date is issued first (those with the least shelf life remaining). However, there is an exception to this rule—if the issue is *to* a mission support kit (MSK), mobility readiness spares package (MRSP), or war reserve materiel (WRM), issue the NEWEST stock first, that is, those items furthest from expiration. This will help ensure the mission readiness of these items when they are needed. Under no condition, should you issue an item that has reached or passed its expiration date. If you discover an expired item, notify an inspector immediately.

### Scheduling and processing for testing

Type II shelf-life items may have their shelf life extended beyond their assigned storage period after successfully completing inspection, test, or restorative action. When submitting materiel to a testing laboratory, it's important you annotate the batch, lot, and contract numbers on all documentation that is being sent for testing.

**NOTE:** Type I shelf-life items cannot be extended and they require an FCC condition change to produce an automatic transfer to DLADS. Do not have these items tested.

### Expired items

If the item has expired, process an FCC—condition change input—to suspend the item to an unserviceable detail. Do this when the item is to be issued to a maintenance function for a serviceability test or when there is a delay in processing. Issue unserviceable items to maintenance functions using a TRIC MSI input with an activity code C. The maintenance function will forward you a written reply of the test results along with any materiel it did not use or that was destroyed in testing.

### Items not yet expired

If an item has not yet expired, schedule it for serviceability testing 15–45 days before its expiration date. Testing is required when the on-hand balance indicates that the materiel will remain in stock beyond expiration. Base your decisions on the normal utilization rate or demand pattern for the item. Do not process an FCC unless you do not receive test results before the expiration of shelf life for that batch or lot number.

### When materiel is returned from testing

If the item is destroyed as a result of testing, process a TIN with condition code H and action taken code 9 to produce an A5J transfer document.

If the item tested unserviceable, but was not consumed, process it in the same manner, except forward the resulting A5J document and the unserviceable item to DLADS. If the item tested serviceable, tag the item and extend its expiration date. Figure 3–8 shows an example of a DD Form 2477–3, Shelf-Life Extension Notice. It's used to show an extension of a shelf-life item.

Figure 3–8. Sample DD Form 2477–3.

### Monitoring shelf life

When appropriate, storage activities may refer to the quality status listing (QSL) to extend the shelf life or dispose of specific items as needed. Items with a short shelf life may need to be monitored more frequently. Use the listing as a guide to ensure the items are properly identified and tagged. If there are any shelf-life issues or if there are items that are not on the QSL, contact the inventory control point (ICP) shelf-life POC.

Annotate the listing to mark outdated items and those items that require issue or disposition before the next inspection. Keep the annotated listing until the next listing is run.

If local management directs, review assets in MRSPs using the MSK/MRSP inventory list (R43).

### **623. Suspect or unsuitable materiel**

Materiel that is suspect or unsuitable for AF use are items that, if used before inspection for verification of serviceability, could cause a hazardous condition or damage to personnel, property, or equipment. These items must be screened closely to ensure that only serviceable stock is stored or issued.

#### **Identifying suspect or unsuitable items**

Periodically, you may receive official notification in the form of messages or letters, specifying that certain items of a stock number are not suitable for AF use. The notification may state that items of a specific stock number, produced by a particular manufacturer, are unsuitable and should be condemned or returned. In this case, items having the same stock number but produced by other manufacturers are still satisfactory, or the notification may advise that only a group of items produced by a manufacturer, such as a particular series of serial numbers or certain model, and so forth, needs to be disposed of.

If you receive a message stating that a stock number is suspect, you must first, and most importantly, get the item record flagged as quickly as possible so that no harm comes to users of the materiel in question. Do this by processing an FCD input with suspect materiel flag S. This input will load the suspect flag to the item record. The applicable directive should tell you how long the item should be coded as suspect materiel. If not, keep the code on the item record for one year. In addition, you will need to process an inquiry to find out all balances on the item or detail records and check the locations to identify any affected assets. Physically inspect each item to ensure it is serviceable. Remove unsuitable assets from storage and dispose of them according to the disposition instructions furnished in the applicable directive. If disposition instructions were not provided, transfer the affected assets to an unserviceable detail location with an FCC input.

Notify the customers or users of suspect materiel through daily bulletins, newsletters, or phone calls, according to local directives. The basis for notification depends on the type of item (e.g., a message concerning items peculiar to only one organization should not be published in daily bulletins or newsletters).

#### **Monitoring suspect or unsuitable items**

Once you've identified an item as unsuitable, any time a receipt or TIN is processed on the stock number, an I302 management notice will be output and the property will be suspended on an unserviceable due-in from maintenance (DIFM) detail record (R920) indicated by the management notice. When you receive an I302 management notice, note the corrective action you have to take and sign or stamp the front of the notice. Send one copy of the notice to stock control for control of the unserviceable item, attach the remaining copies to the property, and forward it to the unserviceable storage area. Dispose of unsuitable items according to the instructions provided in the applicable directive. Return suitable items to a serviceable condition with an FCC input.

Each month, request a utility program to list all stock numbers that have materiel suspect codes assigned to them. Maintain a working copy for yourself and keep it until a new monthly listing is printed.

### **624. Counterfeit/discrepant materiel**

Counterfeit and discrepant materiel has no place in the in the AF or the DOD for that matter. If materiel does not fall within the expected parameters, it is discrepant and therefore not suitable for AF use. Counterfeit materiel is a subset of discrepant materiel and any actions must be taken IAW Department of Defense Instruction (DODI) 4140.67, *DOD Counterfeit Prevention Policy*.

#### **Management of counterfeit/discrepant materiel**

If counterfeit materiel is identified, it is important to employ a risk-based approach to determine how the materiel was procured to prevent recurrence. Applying prevention and having early detection procedures in place can minimize the presence of counterfeit and discrepant materiel. Additionally,



personnel who manage and store AF materiel will be trained on discrepant handling procedures that are consistent with their job functions. Any discrepant or suspected counterfeit materiel will be submitted to the Joint Discrepancy Reporting System (JDRS) for review IAW TO 00-35D-54, *USAF Deficiency Reporting, Investigation, and Resolution*.

**NOTE:** Counterfeit materiel will be disposed of IAW AFI 23-101 and AFMAN 23-122, *Materiel Management Procedures*, Section 6C, *Disposal, Demilitarization and Precious Metals Recovery Program (PMRP)*.

### **625. Warranty or guarantee items**

When an item is under warranty or guarantee (e.g., office machines and appliances, or items that the contract maintenance function requires serialized control), a qualified materiel management inspector will initiate action to assign the appropriate exception code to the item record. Items under warranty/guarantee require special handling. Inspection personnel will ensure copies of warranties are attached to the property and routed to the activity responsible for maintaining the warranty.

#### **Identifying warranty or guarantee items**

When the receiving function receives an item with a warranty or guarantee, a materiel management inspector ensures the warranty or guarantee is valid and applicable to the asset they possess. The receiving document must have the model, serial number, and the manufacturer's name and any other data locally required to verify that the property is properly identified and under warranty.

The next step is to initiate action to assign IEX code B to the item record of the received property with a warranty or guarantee. Once IEX code B is assigned, the property will remain on the item record until the record is deleted.

#### **Distributing warranty data**

Distribution of copies of the annotated receiving documents and warranty paperwork vary, depending on the activity responsible for maintaining the item. You must work closely with base maintenance activities and the contract repair services to make sure that the warranty data is properly routed. Forward a copy of the annotated receiving document and the warranty or guarantee to the following activity or office as appropriate:

- Base civil engineer—for items that they maintain or repair.
- Vehicle maintenance office—for new motor vehicles.
- Other maintenance offices as appropriate (such as aircraft, avionics, communications).
- Other activities maintaining data for warranty, guarantee, and serialized control items.

Warranty or guarantee items should be issued before like items that are not covered by warranty or guarantee. Annotate all issue or TIN documents with the model, serial number, manufacturer's name, and any other data required by local directives. TINs in excess to base requirements must have the warranty kept with the item. When the item is issued, the warranty should be forwarded with the item to the next using activity.

#### **When warranty items need repair**

If a warrantied or guaranteed item needs repair, normally, the using organizations will process the item directly to contract maintenance. For exceptions to this policy, either the AFMC IM—or the ICP will provide instructions for processing the items.

### **626. Other miscellaneous commodities**

The following items are considered miscellaneous commodities:

- Tires.
- Unserviceable items.

- WCDO.

### **Tires**

Sunlight, heat, ozone, and oils contribute to the deterioration of tires and tubes. Therefore, tires and tubes must be stored in cool, dry warehouses and be protected from sunlight to prevent cracking. Paint skylights and windows to reduce the amount of light entering the warehouse. Try to limit the contact of tires with grease, oils, or other petroleum products as much as possible. Since such contact is often unavoidable, wash the tires whenever you can with vegetable oil, soap, and water. Similarly, to slow deterioration of tires and rubber goods, protect their stockrooms from exposure to extreme temperatures (below 32°F or above 120°F).

Place serviceable aircraft tires in suitable tire racks so they're held in a vertical position and with each tire bearing only its own weight. Note, too, that the age limits for aircraft tires are based on their date of manufacture. This is why each aircraft tire bears a colored tape that shows the year of manufacture.

### **Unserviceable items**

Unserviceable items are those that cannot be used in their present condition. These items can range all the way from condemned materiel, which cannot be repaired, to materiel that requires only minor repairs.

When an unserviceable item is turned in that does not result in an automatic shipment or transfer, the unserviceable item is recorded on an unserviceable detail record (R920RW detail).

These items are stocked in separate areas from serviceable items. Most of these items await disposition instructions from a supply depot. After those instructions have been received, the items are either shipped to the depot or disposed of. The items in this area will be tagged with the appropriate unserviceable tag and have a handwritten bin label identifying the location.

The unserviceable area should be checked each day by storage personnel for validation purposes. Each item is re-verified to ensure it is still in the correct location and still awaiting instructions from the depot. Storage personnel accomplish this, since unserviceable items are not the concern of the inventory section. Normally, instructions are received through the stock control section, which, in turn, passes them on to the inspector.

### **WCDO items**

WCDOs are selected WRM expendable items that are directly related and necessary to a weapon or support system. They are also directly related to a combat or combat support activity for which expenditure factors or quantities are indicated in the overall AF war plan. They include:

- Munitions.
- Petroleum.
- Oil.
- Lubricants.
- Auxiliary fuel tanks for aircraft.
- Compressed gases.
- Demineralized water.
- Medical supplies.
- Rations.

Normal considerations for shelf life and HAZMATs apply to stored WCDO items.



## Self-Test Questions

After you complete these questions, you may check your answers at the end of the unit.

### 619. Controlled items

1. What are the storage requirements for Top Secret materiel?
2. What are the storage requirements for Secret and Confidential materiel?
3. Where are precious metals stored?
4. How often are the keys and locks audited when padlocks are used to store classified materiel?
5. How often are combinations changed when padlocks are used to store classified materiel?
6. What is the purpose of SF 702, Security Container Check Sheet?

### 620. Electronic sensitive devices and electrostatic discharge items

1. How are unit packs marked for ESD?
2. How many yellow caution labels must be placed on each exterior container for an ESD item when the container exceeds one-half cubic foot?
3. What type cargo code identifies an ESD item?
4. If an ESD asset is on a *detail* record, what action is taken to process it to a maintenance function for testing?
5. If required, where can an ESD item unit pack be opened?

**621. Functional check items**

1. What are the two categories of functional check assets?
2. Who is designated to act as the maintenance contact point for functional check items?
3. How does a supply inspector process an item to an organization for functional check?
4. Adequate proof of a functional check of an item is provided by the stamp or signature of which person?
5. How often must a functional check listing be run?

**622. Shelf-life items**

1. Describe what a type I and type II shelf-life code is.
2. How many days prior to the expiration date are type II shelf-life items scheduled for serviceability testing?
3. When an item is destroyed as a result of testing, what action do you take?

**623. Suspect or unsuitable materiel**

1. Define an item that is suspect or unsuitable for AF use.
2. How is a suspect item flagged on the item record?
3. How are customers notified of possible suspect items?
4. What management notice is output when a receipt or TIN is processed against a stock number that is coded as a suspect item?

**624. Counterfeit/Discrepant materiel**

1. What can minimize the presence of counterfeit and discrepant materiel?
2. To which program is discrepant and suspected counterfeit materiel submitted for review?

**625. Warranty or guarantee items**

1. Who ensures the warranty or guarantee is valid and applicable to the asset in their possession?
2. What information must be annotated on the receiving document for warranty and guarantee items?
3. What code is assigned to the item record of any warranty or guarantee item received?

**626. Other miscellaneous commodities**

1. How are aircraft tires stored?
2. How are unserviceable items stored?
3. How are WCDO items stored?

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**Answers to Self-Test Questions****615**

1. Federal Standard 313.
2. IEX code 9, or HHF.
3. Serious-health-hazard items.
4. It eliminates repetitive initial reviews of the same item and ensures all items in the categories identified in the health-hazard publications have been screened, identified, and controlled.
5. It identifies the hazards and safety measures associated with a particular product.
6. BES.

**616**

1. On pallets compatible with the materiel being stored.
2. Organic.
3. The rupture of the containers due to increased pressure when they are exposed to fire.

4. In a room separate from other flammables, if space permits. A barrier should separate aerosol cans from other flammables. When exposed to heat, aerosol cans are capable of becoming self-propelled projectiles and airborne sources of ignition.
5. Because pressure buildup in the drums due to thermal loading from the sun and the likelihood of subsequent rupture or drum failure due to corrosion or handling. This could create a significant spill containment and environmental hazard.
6. Low-hazard items.

**617**

1. For expired shelf-life dates or for inspection/test dates that have passed.
2. Monthly.
3. Minimum of 1 year.
4. Retest-cycle dates.
5. Manage, track, and report HAZMAT usage by ensuring only authorized personnel are allowed to order and receive HAZMAT.

**618**

1. To TIN the unused quantity to the HAZMAT pharmacy.
2. For possible free issue instead of placing a demand on supply.

**619**

1. A class A vault is required under the control of the designated primary or subordinate Top Secret control officer. The area must be controlled and alarmed.
2. Must be stored in a class B vault or secure storage area. Storage areas must meet the supplemental safeguards outlined by local authorities.
3. In a security cage.
4. Each month.
5. When a combination is placed in use, when an individual knowing the combination no longer requires access, when the combination has been subject to possible compromise, at least annually, and when taken out of use.
6. To show the location of the container and the names, home addresses, and home telephone numbers of the individuals having knowledge of the combination.

**620**

1. With a electronic sensitive device (ESD) unit pack label on the identification marking side of the unit pack.
2. Two 4×4 inch labels.
3. Type cargo code 3.
4. Using TRIC MSI and activity code C.
5. In an ESD protective area.

**621**

1. (1) Assets, other than buildup items, that require extensive functional check after issue for installation.  
(2) Assets identified by an inspector whose serviceability may be doubtful, due to apparent mishandling while in stock or being dropped.
2. An individual jointly agreed on by the AO and the chief of maintenance.
3. By processing a C activity code ISU to the organization and shop.
4. The base maintenance inspector.
5. At least semiannually.

**622**

1. Type I alpha codes are used for items with a definite nonextendable shelf life. Type II numeric codes are for items with a shelf life that can be extended after completion of inspection, test, or restorative action.
2. 15–45 days.
3. Process a TIN with supply condition code H and action taken code 9.

**623**

1. Items that, if used before inspection for verification of serviceability, could cause a hazardous condition or damage to personnel, property, or equipment.
2. By processing an FCD input with suspect materiel flag S.
3. By daily bulletins, newsletters, or phone calls.
4. I302 management notice.

**624**

1. Prevention and early detection procedures
2. Joint Discrepancy Reporting System (JDRS)

**625**

1. A materiel management inspector.
2. Model, serial number, manufacturer's name and address, and any other data required locally.
3. IEX code B.

**626**

1. In a cool, dry warehouse that is protected from sunlight.
2. In a totally separate area from serviceable items. They will be tagged with the appropriate unserviceable tag and have a handwritten bin label identifying the location.
3. Using normal considerations for shelf life, HAZMAT, and flammable materiel.

**Complete the unit review exercises before going to the next unit.**

### Unit Review Exercises

**Note to Student:** Consider all choices carefully, select the *best* answer to each question, and *circle* the corresponding letter.

**Please read the unit menu for unit 4 and continue ➔**

## Unit 4. Inventory

<b>4-1. Inventory Concepts and Procedures.....</b>	<b>4-1</b>
627. Inventory schedule .....	4-1
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631. Resolving discrepancies.....	4-10

**A**CCURATE RECORDS ARE VERY IMPORTANT in the AF. It would be impossible to operate the Air Force's materiel management system without a reliable record of stock quantities. Stock quantities affect how funds are spent, and identify the availability of items in the warehouse to maintain combat strength.

### 4-1. Inventory Concepts and Procedures

Conducting inventories corrects errors in processing and storage by comparing the item/detail record balances to the quantity of stock on hand or in use. This section covers how to prepare for and perform the four types of inventories:

- Complete.
- Sample.
- Special.
- In-use/in-place equipment.

#### 627. Inventory schedule

Inventories are scheduled and conducted on a quarterly, semiannual, annual, or as required basis, depending on the type of asset. The logistics management function establishes an inventory schedule by fiscal year to ensure an inventory is completed of all items at their prescribed frequency.

When possible, the inventory schedule should follow the warehouse location validation. After completing the inventory schedule, provide a copy of the schedule to all affected sections or flights.

**NOTE:** Out-of-cycle inventories (that satisfy special requests) do not satisfy the quarterly, semiannual, or annual complete inventory requirements.

The following table shows the inventory frequency for each type of asset.

Assets and Inventory Frequencies		
Inventory frequency	Type of assets	Additional remarks
Quarterly	Out-of-warehouse investment	Includes DIFM assets, hand receipts, spares excess to bench mockup authorizations, and similar stocks controlled by command or local systems procedures or projects.
	In-warehouse investment	Selected by AFMC. Use special inventory procedures for these items.
Semiannually	Classified items with CICs A–H, K, L, O, S, and T. Sensitive items with CICs 1–6, 8, 9, Q, R, and \$.	Inventory any item upgraded to classified immediately upon its identification as a classified item. Forward a copy of the warehouse data change notice showing the change in the CIC, to Inventory for a special inventory.



Assets and Inventory Frequencies		
Inventory frequency	Type of assets	Additional remarks
	Munition items	Inventory all sensitive munition items coded 1 through 4 during March and September. Inventory all other ammunition items at least once a year in September. Bases have the option to inventory <i>all</i> munition items during March and September if local conditions require.
	Base service store (BSS)– Individual equipment items (IEE)	Perform a wall-to-wall inventory of the BSS/IEE items during September and March.
	Items with a CIC U or 7	May be inventoried in lots semiannually using the sample inventory technique or, if determined by the AO, annually using the complete inventory technique.
	Nuclear weapons related materiel (NWRM)	
Annual	Supply points	
	Pilferable items with CICs I, J, M, N, P, V, W, X, Y, Z, or *	
As required	Items added to the critical item management system	Use special inventory procedures. Start the inventory within five days after receiving the 1GP output document, unless an inventory of the item was accomplished within the past 30 days.
	Custodian authorization & custody receipt listing (CA/CRL) accounts	Inventory only upon the written request of the organization commander or staff agency director.

### Deadline date

Inventory counts begin on the deadline date. Use the balance on the computer record as of the deadline date to compare your physical inventory count. Establish an inventory deadline date for each warehouse/activity.

### Area preparation

Before the inventory deadline date arrives, advise the storage area personnel to take the following actions to prepare the warehouse lot for inventory:

- Process all transactions applicable to the locations scheduled for inventory at least one day before the inventory deadline date.
- Isolate and identify the area scheduled for inventory by clearly marking the area with ropes, signs, placards, and so forth that show the inventory deadline date. Once the markers are in place, any transactions output before the deadline date will be easy to identify.
- Limit movement of assets to emergency issues and transactions output before the inventory deadline date.
- Use an inventory cap/recap sheet to record all transactions output before the deadline date and all emergency issues from inventory locations. Place the recap sheet at the end of each row included in the inventory. Use the recap sheet to update quantity records during the inventory to ensure the correct count was received. See figure 4–1 for an example of an inventory recap sheet.

## RECAP SHEET

96L13B31

As a minimum, include the following data on the recap sheet:

- TRIC.
- Stock number.
- Warehouse location.
- Quantity.
- Document number.
- System designator.

### 628. Complete inventory

Conduct complete inventories using the closed warehouse method. Close the warehouse area selected for inventory except for emergency issues. The AO ensures the warehouse does not remain closed to normal receipts and issues for an unreasonable length of time and that all backlog transactions are processed immediately upon completion of the inventory.

## Preparing parameter request

One day before the inventory deadline date, prepare a parameter request to select the warehouse locations you want to have inventoried. You can select your parameter in different ways—by CIC ERRCD; DOLT; date of last inventory (DOLI); warehouse location; or type record account code.

The next step involves the inventory count file program (R12). The R12 program writes inventory count records for all item records with a serviceable balance and a warehouse location that falls

within your parameter request. It writes these records to a database file and assigns freeze code C to all item records specified within the parameter format.

### **Performing inventory**

The R-12 listing shows all items selected from your parameter input. Annotate your physical counts on the listing. You will notice that the item record balances do not show up on the R12—that's to keep you from "fudging" on your inventory counts.

A complete inventory can consist of hundreds of stock numbers, so this may require several people working to accomplish it in a timely manner. Once all items are counted, process them in the computer using TRIC, CIC, and complete inventory count images. Manual inventories can become quite time consuming at this point because each item has to be input individually.

### **Inventory recounts**

Input of the count image (TRIC and CIC) will cause the computer to compare the physical count quantity from your CIC image against the record balance internally. If the count quantity matches the item record balance, the computer removes the freeze code, and updates the DOLI on the item record to reflect the current Julian date. If the quantities do not match, the computer will create an inventory recount image (TRIC IRC) indicating that the item requires a recount and reprocessing.

A physical recount is required on all inventory discrepancies regardless of the type balance code or dollar value of the adjustment. You will also need to review the recap sheets for possible errors that may have occurred when the data was transferred from the recap sheet to the inventory count image and perform any other research as required.

### **Reconciliation of recap sheets**

Upon completion of the inventory, notify the customer service section to process all degraded-operations emergency issues that were recorded on the recap sheet. Review the D04, daily document register to verify that they have been successfully processed. Destroy the recap sheet upon verification and notify the other functions that the inventory is complete.

### **365-day inventory**

After the last scheduled inventory has been completed for the year, process a 365-day inventory request to identify items that were not inventoried during the regularly scheduled inventories (due to new item record loads, warehouse location changes, etc.). Do this by processing an inventory parameter request using the DOLI option. The DOLI field of the parameter request reflects the Julian date of the last day of the preceding fiscal year. This action detects and produces inventory count images for item records that have not been inventoried in the past 365 days and that have a warehouse location or serviceable balance.

## **629. Special inventory**

Unlike the complete and sample inventories where complete lots or sections of the warehouse are counted at specific intervals, special inventories are conducted for individual items and on an as-required basis. Perform special inventories to correct an out-of-balance condition. A special inventory does not satisfy the requirement for a complete inventory, regardless of how many times the item has had a special inventory in the past. When an inventory discrepancy is discovered outside the scheduled inventory period, a special inventory is requested to resolve the problem. Organizations may also request inventory assistance for discrepancies they discover on equipment items maintained on their accounts. When performing an inventory on an equipment account, record the out-of-balance conditions on the CA/CRL (R14).

### **Freeze code I**

Item records frozen for special inventory are identified with freeze code I. Freeze code I can be assigned one of two ways:

- Automatically by in-line programs when there is an insufficient balance for degraded-operations transactions, condition changes, or identity changes (creates a 290 reject and 1GP notice under program control).
- Manually by processing a special inventory request (TRIC 1GP).

Monitor assignment of this code by keeping a copy of each 290 reject (insufficient quantity) and special inventory request (1GP) notice in a suspense file. An alternate method is to keep an automated file of all frozen item records. Maintain this file in stock number sequence. Completion of the special inventory and deletion of the freeze code will clear your suspense file.

### **290 reject**

A 290 reject occurs whenever a degraded issue transaction is processed against an insufficient computer balance. Sometimes this is a simple matter where the quantity or stock number was input in error. If this is the case, unfreeze the item record and have the initiator reprocess the transaction with the correct information. If that was not the case, special inventory action is required. (A 290 reject will produce a 1GP notice in all cases for inventory action.)

### **1GP procedures**

Processing a TRIC 1GP input will freeze the item record with freeze code “I” and produce an output notice containing the asset, detail, and transaction history information of the item. The 1GP program will also produce an IRC suspense image for each item or detail record requested.

After you receive a 1GP notice, you will need to decide whether a record adjustment is required. If your research confirms that adjustment to the item record balance is *not* required, take the following actions:

- Process TRIC IRC with the item record serviceable balance or detail balance (for DIFM items) reflected in the inventory count. This input deletes the freeze code “I.”
- Prepare and process a record reversal or other transaction as required.
- If applicable, send the warehouse refusal documents back to storage for processing.
- Annotate the 1GP notice with the action taken. Use this notice to clear the “I” freeze-code suspense file.

If an adjustment is required, do the following:

- Enter the NSN, system designator, count quantity, and appropriate TEX code using the serialized report code (SRC) screen.
- Prepare record reversal transactions if required.
- Annotate the corrective action on the 1GP notice and keep the notice as a suspense copy until the adjustment appears on the document register. Use the 1GP notice to clear the freeze code “I” suspense file.

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## **Self-Test Questions**

**After you complete these questions, you may check your answers at the end of the unit.**

### **627. Inventory schedule**

1. List the different types of inventories.
2. What is the purpose of an inventory schedule?

3. Using the table provided in the lesson, match the inventory frequency listed in column B with the types of items inventoried in column A. Items in column B may be used more than once.

<i>Column A</i>	<i>Column B</i>
____ (1) Hand receipts.	a. Semiannually.
____ (2) Pilferable-type items.	b. Quarterly.
____ (3) DIFM assets.	c. As required.
____ (4) NWRM equipment.	d. Annually.
____ (5) Classified items.	
____ (6) Sensitive items.	
____ (7) Custody receipt accounts.	
____ (8) Munition items.	
____ (9) Critical items.	
____ (10) BSS/IEE.	

4. What is the inventory deadline date?
5. Within what period should all transactions applicable to locations scheduled for inventory be processed?
6. As a *minimum*, what information should be included on the recap sheet?

### **628. Complete inventory**

- Count records are written for what type of item records?
- What program writes inventory count records to a data base file and assigns freeze code C to all item records within the input parameter?
- What does the computer R12 program compare internally upon the input of the count images?

4. What is produced when the CIC input count quantity is unequal to the item record balance?
5. What product do you use to reconcile recap sheets after the completion of the inventory to verify emergency issues were processed?
6. What is the purpose of the 365-day inventory request?

**629. Special inventory**

1. What freeze code is assigned to the item record for special inventories?
2. How is a freeze code assigned when an insufficient balance for a degraded-operations issue transaction is detected?
3. To manually request a special inventory, what document is prepared by the requesting activity?
4. What input removes freeze code I?

## 4-2. Inventory Discrepancies

The purpose of an inventory is to correct errors in processing and storage operations. This permits item and detail record balances to agree with actual quantities of stock on hand or in use. Your first step in resolving an inventory discrepancy is to perform a physical inventory recount. Recounts are required for all inventory discrepancies. After performing your recounts, you may find that additional research is required or that a record adjustment is necessary to fix the discrepancy.

### 630. Researching discrepancies

Upon processing your recount images (TRIC IRC or 1RR), two things can happen when the physical count quantity and item record quantity disagree: (1) the item record may be automatically adjusted by program control or (2) another record image may be produced indicating that additional research is required.

#### Automatic adjustment criteria

Automatic adjustments occur after a physical inventory recount is performed and only if the following conditions are met:

- The item is type account code B (supplies).
- The dollar value of the adjustment is less than \$100 for pilferable items and less than \$1,000 for unclassified items—the adjustment quantity multiplied by the unit price gives you the dollar value of the adjustment.

#### Causative research

Research is required for all discrepancies that fall outside the automatic adjustment criteria. For those items, a modified recount image (TRIC IRC or 1RR) is produced containing the research indicator AR. The AR indicates that additional research is required.

#### Discrepancy categories

The purpose of research is to categorize the type of discrepancies identified so that corrective actions can be started to reconcile the accountable records and to provide a valid, auditable, transaction record that accounts for all items. There are four types of inventory discrepancies.

Inventory Discrepancy Categories		
	Category	Explanation
1.	Resolved discrepancies	The result of an accountable processing error. This discrepancy can be corrected with an accounting adjustment, like a record reversal, rather than an inventory adjustment. It is not necessary to do an inventory adjustment to correct the error.
2.	Unresolved discrepancies that do not require further research	The cause or probable cause was determined through causative research. The stock records may be adjusted with an inventory adjustment transaction. Also includes discrepancies where the probable cause is unknown but further research is not required.
3.	Unresolved discrepancies—no personal responsibility involved	Further research indicates that personal responsibility is not involved, but additional documentation is needed to support an inventory adjustment (i.e., report of survey [ROS]) to relieve the AO of further accountability or responsibility.
4.	Unresolved discrepancies— with personal responsibility	Personal responsibility is shown and a formal investigation (i.e., a ROS) is required to further support the adjustment and relieve the AO of further accountability or responsibility.

Inventory activities collect and classify the causes of unresolved discrepancies to show trends or problem areas. This data can be used to determine how to prevent these causes from occurring again. For example, inventory adjustments resulting from FOB transactions may be a trend that causes unresolved discrepancies. Figure 4-2 shows an example of an inventory discrepancy decision flowchart.



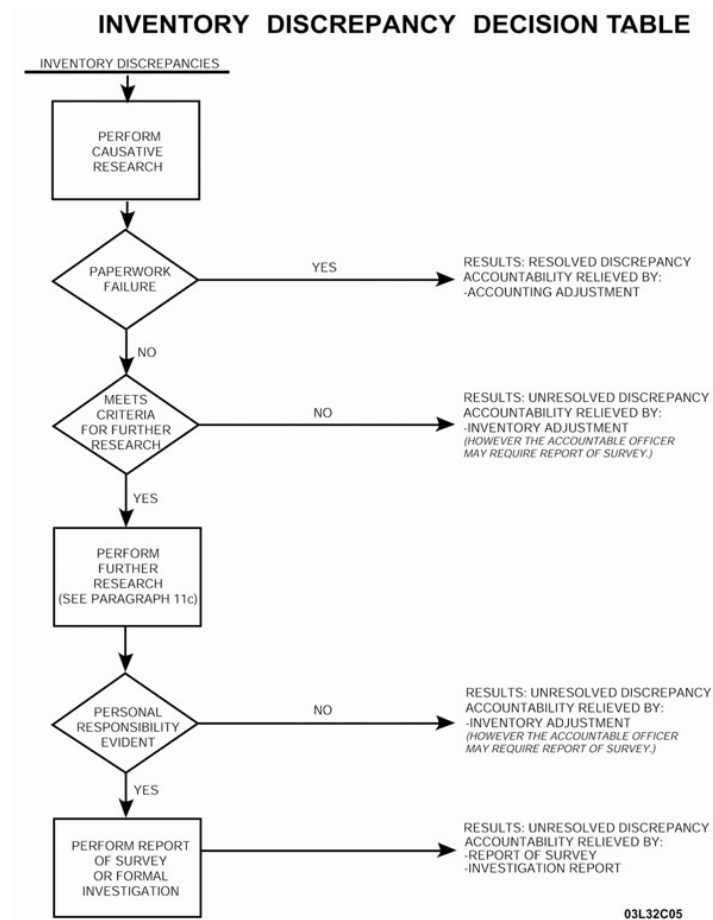


Figure 4–2. Inventory discrepancy decision flowchart.

### Research objectives

Inventory research includes validating inventory comparison data, and identifying accountable documents and postings the AO can correct. It further includes deciding the causes or probable causes for inventory discrepancies so the AO can make corrections. Inventory research has the following specific objectives:

- Ensure errors were not made during the inventory.
- Process a record reversal on erroneous transactions.
- Account for transactions that may not have been posted to the recap sheet.
- Account for rejected transactions.
- Correct warehouse location errors.
- Identify the type of errors that caused the discrepancy so an analysis can determine corrective action.

### Performing research

How do you go about researching an inventory discrepancy? Here are some steps to help you get started:

- Review the daily/consolidated transaction register for erroneous transactions.
- Review unprocessed backlog, to include the daily/cumulative reject listing.
- Review the serviceable balance no warehouse location listing to see if a different warehouse location was assigned.

- Review the bin notice file to see if a bin notice is on file with a warehouse location.
- Review emergency issues made during complete inventory count to ensure that all physical movement of materiel in and out of the storage bin was properly recorded.
- Check the receiving line for assets that processed, but have not been forwarded to storage.
- Do additional research as locally determined.

### ***Researching transaction histories***

Researching the transaction history will help you determine when and where an error occurred. If you are researching an inventory shortage discrepancy, begin with the current date and go back to the last item record zero balance. If the error is not detected at this point and it is determined that more research is needed, continue back one year, or to the last inventory adjustment, or to the previous numeric DOLI. For physical overages, start with the current date and go back one year to the last inventory adjustment or to the previous numeric DOLI. When you've finished your research, attach the transaction history to the inventory worksheet as documentation.

### **Preparing inventory analysis**

Inventory analysis accumulates and categorizes the causes of unresolved discrepancies in order to identify trends and problem areas. From this information, trend charts are prepared or updated. An analysis is made of inventory adjustments that have been processed and potential variances resolved. Analysis can reveal trends that can be a valuable tool toward gaining effective asset control by identifying areas of current and potential high-loss. Inventory analysis will be performed monthly to accomplish:

- Identifying failures in the control systems so improvements can be made.
- Reducing similar discrepancies in the future.
- Evaluating indicators of trends or system problems for corrective action.
- Ensuring the proper inventory adjustment and proper controls were asserted.

The materiel management flight reviews inventory analyses and research in an effort to identify root causes, trends of inventory discrepancies or adjustments, and to recommend corrective actions to mitigate further out-of-balance conditions. Adjustments on the M10 are listed followed by an intermediate inventory adjustment summary of change of certifying/approval codes. This portion summarizes the inventory analysis.

### **Material deficiency report/product quality deficiency report**

Deficiency involves premature failure of an item during the warranty period. When an asset under warranty consistently fails to perform, it impacts the AF with additional cost and manpower to remove and replace faulty equipment. Expedient identification and processing of MDR/product quality deficiency reports (PQDR) is critical to saving valuable resources. Maintenance personnel initiate deficiency returns by providing materiel management personnel with a copy of the initial deficiency report at the time of TIN. TINs will not be processed without the required documentation. Flight service center personnel will process deficiency reports to include latent defect TINs for items with ERRCDs of XD, XF, and XB. Equipment management personnel will prepare TIN documentation for deficiency reports to include latent defects on equipment-managed items. When processing unserviceable MDR/PQDR supply item TINs, indicate the unsatisfactory condition by entering supply condition code Q and action taken code C.

### **631. Resolving discrepancies**

If your research action was successful, the discrepancy was resolved and inventory adjustments to accountable records are not necessary. If your discrepancy involved a shortage, with luck, you will be able to locate the missing property and have it returned. Other times, you may need to process a missing transaction or a record reversal on an erroneous transaction to correct the discrepancy. For all

other discrepancy categories (unresolved), you will need to correct the record balance with an adjustment transaction.

### Adjustments

Before adjusting accountable records, make every effort to resolve the cause of the discrepancies. The presence of inventory adjustments among accountable transactions indicates that the accounting system has lost control and needs external inventory action to bring about reconciliation. The procedures for adjusting discrepancies for complete, sample, and in-use/in-place equipment inventories are below.

#### Complete inventory

If your recount quantity (IRC input) is equal to the record balance, the computer will remove the freeze code C and update the applicable records. If the quantities are unequal and the item does not meet the criteria for automatic adjustment, an F105 management notice—RECOUNT DISCREPANCY—REQUIRES ADDITIONAL RESEARCH—is output at the input device. In addition, another IRC image is created with a recount/research indicator of AR to indicate that additional research is required.

The F105 management notice provides item or detail record data to help you in the research process. Upon completion of your research, process the IRC image with the AR and count quantity. This transaction will adjust the record balance and update the applicable inventory accuracy records. Repeat the process until a notice is printed indicating that the inventory for this parameter is complete.

#### Sample inventory

When the 1RR input is processed, the computer compares the 1RR quantity with the record balance. If the quantities are unequal and the automatic adjustment criteria are not met, a new 1RR is produced with an AR to indicate that additional research is required. Reinput the 1RR with AR to adjust the record balance and update the applicable inventory accuracy records.

#### In-use/in-place equipment inventory

Equipment items are handled a little differently. If your recount and research shows that an overage exists, prepare an AF Form 2005, Issue/Turn-In Request to be used as an inventory overage document (IOD), and get the custodian's signature (fig. 4-3). Depending on the type of equipment, an AF Form 601, Equipment Action Request, may also have to be obtained.

TRIC 1 2 3 I O D		DEL DES/TSX 4 5 6 7		A. INCHECKER, NAME, DATE (TIN) <b>TSgt WALKER</b> <b>7273</b> <b>13:45</b>										B. INSPECTOR, NAME-STAMP, DATE (TIN)																																																																													
REQUESTER, TIME & DATE (ISU)																																																																																											
STOCK NUMBER										UNIT OF ISSUE										QUANTITY										C.										DOCUMENT NUMBER										DMD																																									
NSC										NIIN										ADDN										ISSUE										ACT										ORG										SHOP										DATE										SER. NO.										COND	
8 3 4 5 0 0 8 2 0 8 3 8 2										E A 0 0 0 0 1																				E 1 2 3 A B 7 2 6 2																																																													
SAMPLE ONLY																																								E. T.O. E/TECHNICAL HIGHER ASSEMBLY																																																			
																																								D. PART NUMBER/NAME/ENRKS																																																			
WORK ORDER										TEX COND/FAC										WS										PROJECT										PRI										REQ DEL DATE										UJC										MARK FOR										F.T.O. PSC AND/OR ERR											
SHIP TO										S1 S2 S3										54 55 56										57 58 59										60 61										AT										62 63 64										65 66										67 68 69 70 71 72 73 74 75 76 77 78 79 80											
G. TIME & DATE OF DELIVERY										H. DELIVERY TIME										I.										J. NOMENCLATURE <i>Andy Belter</i>																																																													
AF Form 2005, JUN 86																				PREVIOUS EDITION WILL BE USED																				☆ U.S.G.P.O. 1985-471-382																				96L13B37																															

Figure 4-3. AF Form 2005 used as an inventory overage document.

Forward copy 1 of the CA/CRL and the IOD to the equipment management element (EME). EME ensures that the property custodian submits an AF Form 601 with the CA/CRL, as applicable. If necessary, process TRIC FIL/FCI input or inputs to load the item record and authorized/in-use allowance source code (use ASC 000) pending AF Form 601 approval or disapproval. After completing these steps, process the recount images (TRIC IRC). After receiving the M10, review it, attach the IOD, and forward them to the document control section for filing.

If your research confirms an equipment shortage, enter the quantity change on the CA/CRL copies. Process the recounts (TRIC IRC). The recount quantity and the authorized/in-use detail balance will be updated with the recount quantity and the detail DOLI is updated with the current date. The applicable inventory accuracy record is updated. An inventory adjustment record and a transaction history are created.

### **Supporting documentation**

Supporting documentation is required for all adjustments that fall outside the automatic adjustment criteria. You may require one or more of the following documents to support an inventory adjustment:

- Completed research worksheets or inventory registers.
- DD Form 200, Financial Liability Investigation of Property Loss.
- DD Form 361, Transportation Discrepancy Report (TDR), or a message confirming the item is lost in shipment.
- DD Form 1131, Cash Collection Voucher.
- DD Form 362, Statement of Charges/Cash Collection Voucher,
- SF 364, Report of Discrepancy (ROD).
- DD Form 114, Military Pay Order.
- AF Form 2005 used as an inventory overage document.
- DD Form 1150, Request for Issue or Turn-In or DD Form 1348-1A.
- SF 153, COMSEC Material Report.

Supporting documentation is not required for resolved discrepancies since adjustments to the item record balance were not involved. However, you will need to identify the cause of the discrepancy to determine trends and problem areas (e.g., document not posted or duplicate inputs). For unresolved discrepancies, attach the supporting documentation to the consolidated inventory adjustment document register (M10).

### **Reports of survey**

A report of survey (ROS) is an official report of the facts and circumstances supporting the assessment of financial liability for the loss, damage, or destruction of AF property and serves as the basis for the government's claim for restitution. It authorizes adjustment of property accountability records, establishes pecuniary liability, prescribes corrective action to prevent recurrence of loss, damage, or destruction of AF property; and serves as authority for effecting collection of indebtedness.

The requirement for a ROS is controlled by the type of property involved and the circumstances of the loss, damage, or destruction of items such as pilferables, sensitive, classified, and small arms.

Normally, the organization that maintains accountability records for the lost or damaged property is responsible for initiating a ROS by appointing an initial investigating officer. When the investigation officer concludes the investigation, the results are documented on a DD Form 200 and forwarded to the appointing authority. Next, the appointing authority, usually the comptroller, may appoint a financial liability officer, but *only* when the initial investigation results are insufficient to make a determination of whether or not negligence or abuse was the proximate cause of the loss, damage or

destruction of government property. The appointing authority makes recommendations to the approving authority. The approving authority, usually the wing commander, takes final action on ROSs in cases where the appointing authority does not take final action, and approves or disapproves investigation findings and recommendations and ensures all persons found financially liable are informed of their appeal rights and given an opportunity to review the file. Lastly, individuals are liable for the full amount of loss or damage to personal arms and equipment proximately caused by their own negligence, willful misconduct, or deliberate unauthorized use.

### **Accountability**

AFI 23-111, *Management of Government Property in Possession of the Air Force*, prescribes basic guidance and responsibilities for managing government property under AF control. It instructs personnel to manage and care for AF property under their control, responsibly. This instruction applies to all AF active duty military, civilian personnel, and individuals required by contract to manage and be responsible for government property, including the Air National Guard and Air Force Reserve.

An AO is one who is officially designated and required by law, lawful order, or instruction to exercise custody, care, and safekeeping over property entrusted to his or her possession, or under his or her supervision. Responsible officers place specific emphasis on:

- Ensuring property accountability is enabled by item unique identification (IUID) and automatic identification technology (AIT).
- Properly identifying, reporting, and determining the correct disposition of unserviceable, repairable, or excess property.
- Validating the accuracy of accountable records and the validity of property locations.
- Providing effective guidance and training on accountability standards to custodians, and other personnel, as required.

A property custodian is any person designated by the unit commander to accept custodial responsibility for government property under their control. Responsible persons (property custodians) place emphasis on:

- Planning and forecasting requirements to meet mission goals.
- Preparing and forwarding materiel requests to the proper agency or individual.
- Reporting losses or irregularities relating to property to immediate commanders, AOs, and/or responsible officers.
- Identifying and reporting disposition of serviceable, unserviceable, repairable, and excess materiel.

### **Supply discipline**

Carrying out supply discipline is mandatory for all personnel and essential to conserve, protect, and maintain available government systems, equipment, and supplies for operational requirements. Subordinate commanders are responsible to their commanders for prudent management, control, storage, and cost effective use of government property under their jurisdiction.

One of the most critical aspects of maintaining good supply discipline is assigning responsibility for equipment users. By ensuring property is assigned and 100 percent accounted for, commanders increase their chance of maintaining supply discipline. Here are a few tools used to assign responsibility for property:

- R14 CA/CRL.
- Budget code 9 listings.
- Hand receipts.

- Temporary hand receipts.
- Equipment receipts.

Government property includes, but is not limited to, hand tools, operating stocks, individual equipment, administrative supplies, equipment, special purpose recoverables authorized maintenance (SPRAM), and bench stock items. Refer to AFI 84-103, *United States Air Force Heritage Program*, for guidance on managing and accounting for items considered USAF historical property, including static display aircraft.

You may find the following table helpful in reviewing the information in this unit:

Inventory Adjustment Programs and Codes					
Type Inventory	Program	Freeze Code	Initial count Image (TRIC)	Recount Image (TRIC)	Adjustment Image (TRIC)
Complete	R12	C	CIC	IRC with RC	IRC with AR
Sample	R17	C	1RS	1RR with RC	1RR with AR
Equipment	R14	(none)	EIC	IRC	
Special	1GP	I	IRC		

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### Self-Test Questions

After you complete these questions, you may check your answers at the end of the unit.

#### 630. Researching discrepancies

1. When is a physical recount performed on an inventory discrepancy?
2. What action must be performed before automatic adjustments to inventory discrepancies occur?
3. What is the criterion for an automatic adjustment after a physical inventory recount?
4. What are the four categories of inventory discrepancies?
5. When performing inventory research, why do you review the serviceable balance—no warehouse location listing?
6. When researching an inventory shortage discrepancy, how far back do you go from the current date?

#### 631. Resolving discrepancies

1. What transaction adjusts the record balance and updates the applicable inventory accuracy records for a complete inventory?

2. What type of item requires support documentation?
3. What is a report of survey (ROS)?
4. When is a financial liability officer appointed?

---

### Answers to Self-Test Questions

#### 627

1. (1) Complete.  
(2) Sample.  
(3) Special.  
(4) In-use/in-place equipment.
2. To ensure all assigned locations and details are inventoried at their prescribed frequency.
3. (1) b.  
(2) d.  
(3) b.  
(4) a.  
(5) a.  
(6) a.  
(7) c.  
(8) a.  
(9) c.  
(10) a.
4. The date on which the inventory count begins.
5. At least one day before the inventory deadline date.
6. TRIC, stock number, warehouse location, quantity, document number, and system designator.

#### 628

1. Those with a serviceable balance and a warehouse location within the parameters of the request.
2. R12.
3. Physical count quantity and record balance.
4. An inventory recount image.
5. D04.
6. To identify items not inventoried during the regularly scheduled inventories.

#### 629

1. Freeze code I.
2. Automatically by in-line programs.
3. Special inventory request (1GP).

4. Special inventory count (IRC).

**630**

1. Always.
2. Physical inventory recount.
3. Type account code B, controlled item code (CIC) U, and total adjusted dollar value is less than \$100 for pilferable items and \$1,000 for unclassified items.
4.
  - (1) Resolved discrepancies.
  - (2) Unresolved discrepancies that do not meet criteria for further research.
  - (3) Unresolved discrepancies where further research indicates no personal responsibility.
  - (4) Unresolved discrepancies where further research indicates evidence of personal responsibility.
5. To see if a different warehouse location was assigned.
6. Go back to the last item record zero balance. If the error is not detected at this point and it is determined that more research is needed, continue back one year, or to the last inventory adjustment, or to the previous numeric DOLI.

**631**

1. An IRC.
2. Inventory adjustments that don't meet the automatic adjustment criteria.
3. An official report of the facts and circumstances supporting the assessment of financial liability for the loss, damage, or destruction of AF property and serves as the basis for the government's claim for restitution.
4. Only when the initial investigation results are insufficient to make a determination of whether or not negligence or abuse was the proximate cause of the loss, damage, or destruction of government property.

**Complete the unit review exercises before going to the next unit.**



## Unit Review Exercises

**Note to Student:** Consider all choices carefully, select the *best* answer to each question, and *circle* the corresponding letter.

**Please read the unit menu for unit 5 and continue ➔**

## **Student Notes**

## Unit 5. Bench Stock, Materiel Handling, and Threat Reduction Assets

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633. Conducting bench stock review .....	5-4
<b>5-2. Materiel Handling .....</b>	<b>5-8</b>
634. Basic materiel handling and storage principles.....	5-8
635. Reusable containers .....	5-9
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**T**HE SUBJECTS COVERED IN THIS UNIT are bench stock items and materiel handling. Bench stock items are those items used regularly. This unit covers establishing a bench stock and the bench stock review process. In the materiel handling section, you will cover movement of materiel from one place to another using the manual or mechanical handling method. The section covering threat reduction assets focuses on the various materiel management practices associated with nuclear weapons and nuclear weapons-related materiel (NWRM).

### 5-1. Bench Stock

Bench stock items are low-cost, expendable items used by maintenance on a regular basis. These items are stored in the work area until needed by the maintenance activity. Some examples are nuts, bolts, screws, resistors, and seals.

#### 632. Establishing a bench stock

There are advantages and disadvantages to having a bench stock. In this lesson, you will look at each of these and learn what is required to establish a bench stock. This table lists the advantages and disadvantages of having a bench stock.

Bench Stock Advantages and Disadvantages	
Advantages	Disadvantages
<ul style="list-style-type: none"><li>• The items are on hand, instead of at the LRS.</li><li>• Communication and transportation activity is reduced between users and the LRS.</li><li>• Workloads are reduced for the LRS because it can make less frequent bulk issues, instead of more frequent individual issues.</li><li>• The user has control of his or her materiel.</li></ul>	<ul style="list-style-type: none"><li>• Considerable effort is required to establish and maintain bench stocks.</li><li>• Storage space is required in the work areas.</li><li>• Capital investment is required in bins and security.</li><li>• Organizations have to pay for the items before use, since bench stocks are provided in anticipation of need, instead of in response to actual need.</li></ul>

#### Criteria for bench stock

Before an item can be assigned to a bench stock, it must meet the following *minimum* criteria:

- The item record ERRCD must be XB3.
- The item record must *not* be assigned one of the following codes:
  - (a) Numeric parts preference code (NPPC) 2—Disposal.

- (b) NPPC 4—Time compliance technical order (TCTO).
- (c) NPPC 5—Nonpublished.
- (d) NPPC 9—Unacceptable for AF use.
- (e) Recoverable Assembly Management Process System (RAMPS)/WRM codes 5, 6, 7, or E.
- (f) Classified or sensitive.
- (g) IEX code 3, 6, E, or K.

Items different from the unit of issue (nuts, bolts, and screws), that normally are used in quantities and items different from the quantity unit pack (QUP), and that have a unit of issue, should be added to the bench stock to the maximum levels possible.

Special rules apply to pilferable items. Items with CIC 7, I, U, Y, Z, or \* are authorized on bench stock. Items with CIC J that fall in the categories defined by the CIC I, Y, and Z are also authorized on bench stock. Pilferable items do not require IEX codes because they are already treated as controlled items.

Other CICs not specified above are authorized on bench stock ONLY when the unit commander gives approval in writing. Items in this category are further identified by assigning IEX code N to the item record.

### **Establishing a bench stock**

To establish a bench stock, the supported activity must coordinate with the LRS, set an approved maximum dollar threshold, and identify the stock location. Once established, organizations can ask to have items added to their bench stock any time by any method preferred by the organization (telephone, letter, or annotated listing). The responsibilities for setting up the actual bench stock are divided between the customer service function and the supported organization. The table below identifies the responsibilities:

<b>Customer Service and Supported Organization Functions</b>	
<b>Customer service function</b>	<b>Supported organization</b>
<ul style="list-style-type: none"> <li>Establishes the master bench stock detail record.</li> <li>Establishes and maintains bench stock authorization lists.</li> <li>Replenishes and delivers items.</li> <li>Identifies and turns in excess items (when authorized by the organization).</li> <li>Installs, maintains, and updates on-base bench stock placards.</li> </ul>	<ul style="list-style-type: none"> <li>Prepares and cares for shadow boards (if used) to display stock.</li> <li>Provides storage space and bins for the bench stock.</li> <li>Red flags each bin when the on-hand balance is 50 percent or less of the authorized quantity.</li> <li>Ensures proper usage, care, and security of bench stock items.</li> <li>Reviews due-outs.</li> <li>Establishes controls for shelf-life items to ensure the oldest item is used first.</li> </ul>

### **Loading the master bench stock detail**

After a level of bench stock has been approved, you will need to load an initial master bench stock detail record for each item. This record is used to identify each item on the bench stock. The initial master bench stock details are loaded using TRIC 2BS. Activity code B (for bench stock) and action flag L (load) are used to process the detail record. Once the master bench stock details are established, you can process issue requests through customer service using TRIC 1BS.

### **The bench stock document number**

Loading the master bench stock detail will create a bench stock document number. This document number consists of:

Bench Stock Number Elements				
Activity Code	Organization Code	Shop Code	Date of Last Demand (DOLD)	Item Number
B	232	HS	0000	0134

The activity code is always B to show that it is a bench stock item. The organization code identifies the specific organization involved, and the shop code identifies the shop within the organization. The initial detail load contains four zeros in the DOLD field. The item number is 0001 for the first item assigned and progresses in sequence (0002, 0003, 0004, etc.) for each subsequent item loaded thereafter.

When an item is deleted from bench stock, adjust the proper organizational bench stock listing (S04) accordingly. When an item is added to an established bench stock, check the S04 and use the first available sequential item number.

#### *Changing or deleting bench stock details*

Changes to an organization's authorizations can be requested any time by telephone, letter, or using an annotated bench stock listing. Prepare the inputs to change the authorization or to delete a bench stock item using TRIC 2BS—with action flag C (change) or D (delete). Obtain the detail document number for each item being updated or deleted from the organization's bench stock listing.

#### *Understanding minimum reserve authorizations and maximum authorized quantities*

Bench stock levels are justified by past consumption patterns and computed by the bench stock review. Any item placed on bench stock that is not supported by past demands must have a minimum reserve authorization (MRA) or a maximum authorized quantity (MAQ) requirements flag entered on the master bench stock detail record. The meanings of these flags are:

Bench Stock level Flags and Meanings	
Flag	Meaning
1	MRA based on a 30-day requirement.
2	MAQ based on a 30-day requirement.
3	MRA based on a 45-day requirement.
4	MAQ based on a 45-day requirement.
A	MRA based on a 60-day requirement
B	MAQ based on a 60-day requirement.
C	Authorization based on consumption for 60 days with no bench stock minimum reserve.
D	QUP to be considered when computing recommended level.
E	Authorization based on consumption for 45 days with no bench stock minimum reserve.
BLANK	Authorization based on consumption for 30 days with no bench stock minimum reserve.

The MRA and MAQ keep the authorization from appearing on the monthly bench stock review report (M04) as a recommended deletion, and they are used in computing M04 computation formulas. When MAQs are established (flag 2, 4, or B), make sure the authorized detail quantity does not exceed the MAQ.

MRAs and MAQs for bench stock have no relationship to adjusted stock levels. Such minimum or maximum quantities do not imply that you establish a minimum or maximum adjusted stock level. The requirement for adjusted stock levels related to bench stock items are established on a case-by-case basis. The AO may use excess exception (EEX) codes to protect a temporary, but large quantity of bench stock items from disposition.

### 633. Conducting bench stock review

The bench stock program is a very important aspect of materiel management support. It involves a large expenditure of funds and a substantial volume of transactions. A regular review of bench stock authorizations will help ensure the success of materiel management support to maintenance operations. In addition to learning about the criteria for adding, changing, and deleting items to bench stock details, you will also learn about the different phases and intervals by which bench stocks are reviewed.

#### Additions

Besides past consumption data, there are many reasons for adding items to a bench stock detail. Here are a few possible reasons:

- When the end item supported is a prime mission aircraft, missile system, or communications-electronics, and the maintenance commander feels the organization can't wait for items to be delivered from the warehouse.
- The items are included in the AFMC initial spares support list (ISSL) for the system.
- The using activity is off base or in a remote part of the base, and the item must be at the using location.
- When the unit of issue is not compatible with the unit of use (such as nuts, bolts, and screws) or with the QUP (such as wire that comes in 50-foot rolls).

#### Changes

Quantity changes are recommended only for substantial changes in consumption patterns. A substantial change is one in which the change exceeds the square root of the previous authorized quantity. Smaller changes aren't recommended by the review. If the supported activity doesn't agree with the computed authorized quantity, it should request an MRA/MAQ. If it does, it must justify the request. MRA recertification is accomplished during the review process.

#### Deletions

Deletions may be processed:

- When it is requested by the supported activity.
- When the review listing shows items having no consumption in 270 days.
- When the item ERRCD changes from XB3 to XD or XF.

Deletions can be made any time, regardless of the level computed by the bench stock review. The bench stock review program provides recommendations for possible deletion. These recommendations are produced for items when the DOLD is greater than 270 days old or when the computation of a new level results in a level of less than 1.

The using activity has the final say as to whether the item is deleted or not. Items that are not justified by consumption usually require assignment of a MRA/MAQ. Items that don't have MRA, and, in the opinion of the organization's representative should not be deleted, are extended until the next review. Annotate the S04 to show which items were deleted and then prepare returns for those items.

#### Phases of review

The bench stock review is conducted in three separate phases:

- Phase I—monthly using the M04.
- Phase II—semiannually using the S04.
- Phase III—annually for SRD/MRA authorizations.

#### *Phase I—Monthly recommended additions, changes, and deletions (M04)*

Processing the M04 is the most efficient way to determine requirements for adding, changing, or deleting bench stock authorizations. The M04 program is designed to compute recommended quantities based on

recorded consumption data. It recommends items based on past issue and DOR actions. At the option of the base or MAJCOM, the M04 can use a 30-, 45-, or 60-day period to compute authorized quantities. However, activities may make changes at any time independent of this report.

The M04 produces a listing of recommended items that qualify for addition to organizational bench stocks. These additions are computed from the economic order quantity (EOQ) consumption detail records that are built from ISUs and DOR processed for XB items that are not currently on bench stock. These details are maintained in the computer database for 180 days; and if they are not recommended for addition, they are deleted. Once an item is recommended for addition, it will stay in the computer database for 30 days. If at the end of the 30-day period the item has not been added, the detail will be deleted and the consumption data will be lost. Coordinate with the affected bench stock account representative before making changes.

If you receive a request to add items that are not listed on the M04, coordinate with customer service to verify the requested stock number and unit of issue. Furnish the IEX code, application code, and system designator for each item. Also, review each item to ensure that all bench stock criteria are met. Obtain necessary approvals for addition and notify the requesting activity of action taken. Process a 2BS input to load the master bench stock detail and then process a 1BS issue input to fill the request.

### *Phase II—Semiannual recommended additions, changes, and deletions (S04)*

The semiannual review may be discontinued with the concurrence of the AO and the supported organization commander. However, an annual review must be conducted and is done using the S04.

To accomplish the semiannual review, conduct a meeting with the major bench-stock-supported shops. The meeting attendees include maintenance and materiel management personnel involved in the bench stock process. Schedule the review so it doesn't conflict with normally busy periods, such as end-of-month or end-of-year reports processing.

Completely inventory and replenish all shops within 15 days prior to a scheduled semiannual review. Accomplish the phase II review within one workweek and resume normal support to the shops as quickly as possible.

During these reviews, give special emphasis to items with no demands in the past year and items with excessive quantities not supported by demands. Alter the listing as needed for all changes and recommended deletions, and then have it signed by the reviewing participants. Keep a copy of the signed listing until the next review is completed.

The S04 is run after each semiannual review in item number sequence.

**NOTE:** Handwritten entries are made to the bench stock listings as levels are adjusted or items are added or deleted during the semiannual period.

After all necessary actions have been taken, provide copies of the S04 to the appropriate shop supervisor and materiel control. Also, file a copy of the S04 with the signed listing from the joint review meeting. A thorough review is extremely important to ensure bench stocks support the mission efficiently and economically.

### *Phase III—Annual SRD/MRA validation*

The standard reporting designator (SRD) data and MRA levels must be validated annually at the same time as one of the semiannual reviews. After phase II of the review is done, take the following actions:

- Send a cover letter signed by the AO, with a copy of the S04, to materiel control requesting review of all SRD and MRA data. Completion of the review is certified by the shop supervisor's endorsement.



- Make any changes resulting from this review to the master bench stock detail by the input of a 2BS.
- File a copy of the endorsed review and use it for verification of the annual review.

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### Self-Test Questions

After you complete these questions, you may check your answers at the end of the unit.

#### 632. Establishing a bench stock

1. What must the ERRCD be for items assigned to a bench stock?
2. Match the responsibility in column A with the responsible activity in column B. Activity may be used more than once.

<i>Column A</i>	<i>Column B</i>
____ (1) Provides storage space and bins for the bench stock.	a. Customer service function.
____ (2) Establishes the master bench stock detail record.	b. Supported organization.
____ (3) Establishes and maintains bench stock authorization lists.	
____ (4) Ensures proper usage, care, and security of its bench stock items.	
____ (5) Installs, maintains, and updates on-base bench stock placards.	
____ (6) Red flags bins when the on-hand balance is 50 percent or less of the authorized quantity.	

3. What does the master bench stock detail record identify?
4. What TRIC is used to process requests for bench stock issues through customer service?
5. What TRIC is used to change the authorization or delete a bench stock item?
6. When should a bench stock have an MRA or an MAQ requirements flag?

7. What code can be used to protect a temporary large quantity of bench stock items from disposition?

### **633. Conducting bench stock review**

1. When are quantity changes recommended during a review?
2. Who has the final say as to whether an item is deleted or not?
3. What action is taken when an item doesn't have an MRA, but the organization representative feels it should not be deleted?
4. How many bench stock review phases are there?
5. What listing is used to accomplish the monthly recommended additions, changes, and deletions in the phase I review?
6. When a phase II, semiannual bench stock review is conducted, within what time frame must the review be accomplished?
7. At a minimum, how often must SDR data and MRA levels be validated?

## 5-2. Materiel Handling

Materiel handling is the movement of materiel and supplies from one place of operation to another without affecting their value. This can involve the use of manual or mechanical handling methods. Materiel handling practices vary, but the basic principles remain the same. While storage aids and MHE provide the tools for efficient storage and handling of materiel, many factors determine their use.

### 634. Basic materiel handling and storage principles

Certain principles apply to materiel handling to ensure the efficient and economical handling of property. Some of those basic principles are:

Materiel Handling Principles and Explanations	
Principle	Additional Comments
The least handling is the best handling	The greatest economy in moving materiel is by <i>not</i> handling the materiel at all (i.e., the least handling is the best handling). Since this situation rarely exists, attempt to keep materiel handling to a minimum.
Use straight-line flow	The shortest distance between two points is in a straight line. The time required to travel a given distance is reduced by following a straight line.
Keep movement paths to a minimum	Keep the length and number of moves to a minimum. Study the movement paths of materiel for ways to reduce backtracking and the length of moves. This results in better utilization of equipment and personnel.
Pre-position materiel	Pre-position— <ul style="list-style-type: none"> <li>• Containers positioned to facilitate picking up.</li> <li>• Containers on a conveyor to reduce accidents and lessen equipment damage.</li> <li>• Materiel positioned so it won't obstruct other materiel movements—this may reduce materiel and equipment damage and accidents.</li> </ul>
Move materiel horizontally, not vertically	Move materiel in a horizontal plane or with the aid of gravity. Excessive effort is required if you have to reach up or down when loading or unloading. The ideal lifting position is at the carrier's waist. The nearer to the waist that a container or part is picked up and disposed of, the greater the efficiency will be. Accordingly, proper planning of workplace layout is essential.
Advanced planning	Planning is the most essential phase of any program. With materiel handling, advanced planning is required for factors such as: <ul style="list-style-type: none"> <li>• Protection against weather or breakage.</li> <li>• Consideration of legal and physical restrictions in reference to transportation.</li> <li>• Possibility of using unitized loads.</li> <li>• Standardization of equipment and methods.</li> <li>• Combination of materiel handling methods.</li> <li>• Consideration of the safety hazards involved.</li> </ul>
Analyze the operation	Analyze all materiel-handling operations for ways to eliminate, combine, or simplify the process of moving property. Combining operations simplifies and reduces the number of times materiel is handled.
Standardize handling methods	All materiel-handling operations must follow a defined method. What causes variation in the length of time required for handling a given product? The method used in picking up, carrying to, setting down, and returning from, is always the source of variation. Standardization of the method provides a basis for determining handling requirements.
Volume dictates the method of handling	Regardless of the size, shape, or value of an item to be moved, you must first know how many pieces are to be moved before you can select a method to move the property.
Consider manual handling for short moves	Short, irregular moves usually require manual materiel handling. Remember, some materiel handling operations do not occur with any

Materiel Handling Principles and Explanations	
Principle	Additional Comments
	degree of repetitiveness. Thus, the use of equipment for such an operation may be much more costly than manpower. Also, when moves are short or irregular, or load capacity of manpower is not exceeded, it may be more economical to use manpower.
Standardize equipment	Standardization of equipment results in the reduction of the costs of operation because maintenance, repair, storage, and issue procedures can be simplified.
Keep specialized equipment to a minimum	Materiel handling operations that require special equipment are costly. Initial purchase cost, cost of operation, and maintenance costs are normally greater for specialized equipment than for standard equipment.
Select equipment for multiple-use applications	Select equipment with flexibility in mind. Give thought to the ease with which equipment can be converted to handle other jobs.
Know equipment capacity	Never exceed the rated capacities of equipment. Overloading causes excessive wear and tear on equipment and creates additional accident potential.
Consider economics of operation	Selection of MHE is based on the economics of operation. These economies are measured in terms of the cost of moving the materiel. Greater payloads for each handling operation result in less handling cost per piece.

Storage aids systems (SAS) have a significant impact on the capabilities of base and depot functions throughout the AF. These systems increase productivity and utilization of warehouse space. They improve mission capability (MICAP), enhance safety, and improve job satisfaction for the system operators.

The SAS include many types of general-purpose racks, shelves, and bins. It also includes any support equipment (SE) required to provide a completely functional storage system or a specialized function within a larger system.

### 635. Reusable containers

A reusable container is a shipping or storage container designed to be used, saved, and reused as a complete system (except for the wrapping or strapping). Damaged or missing components of the system must be repaired or replaced before reuse. Reusable containers are complete systems in that the interior packaging materials and devices (such as wrap, mitigation, blocking, bracing, and fasteners) are as essential to the protective function as are the exterior shipping containers for structure.

#### Objective

Reusable containers are designed for return of reparable assets as well as reshipment of serviceable assets. As repair cycle items are issued to maintenance activities, they are packaged in containers constructed especially for each particular item. It is the maintenance activity's responsibility to ensure repair cycle items are returned in the same containers they were issued. If an item is turned in without the appropriate container, the maintenance activity is held accountable and must submit the paperwork to construct another container. They will be charged for the construction of the new container.

Packing exists to protect and facilitate handling and shipping items. Therefore, the cost of packaging is less significant than the requirement that the item be delivered to the user in serviceable condition.

#### Container categories

Reusable containers come in two categories—long-life and short-life, depending primarily on the durability of the exterior shipping container (fig. 5-1).



Figure 5-1. Example of reusable containers.

### *Long-life containers*

These containers should withstand at least 100 trips. They are usually made of metal, plastic, or synthetic materials and are fabricated according to an engineering drawing; they are produced by industrial equipment. The containers are subject to AFMAN 23-122, *Materiel Management Procedures*, accountability and management procedures. Base packing and crating functions usually don't have the capability to build long-life containers nor the facilities or materials to repair them.

### *Short-life containers*

These containers should survive at least 10 round-trips. They are usually made of plywood, wood, or fiberboard. They are consumable and can be disposed of locally when they are beyond economical repair. Base packing and crating activities usually have the materials and ability to construct, repair, or renovate short-life containers. Special packing instructions describe the complete container system, including cushioning, die-cuts, inserts, fasteners, and the exterior container, with a drawing and bill of materials. GSA stock lists short-life containers for central buying and stocking.

### **Container styles**

Reusable containers come in two styles—specialized and multi-application, based on their use or application. Either style can be used in constructing long-life or short-life containers.

#### *Specialized*

Specialized containers are generally the long-life variety; they protect a specific item (or a limited variety of items). Normally, maintenance activities repair specialized long-life containers and control them as accountable items of supply. Users or packing personnel repair specialized short-life containers and normally do not stock-list them.

#### *Multi-application*

These containers protect one or more fragile items or items of an unusual size. Short-life multi-application containers include fast packs and standard packs. Fast packs are suitable for shipping a large number of different items within certain limits of size, weight, and fragility. Standard packs can be reused or reclaimed by reusing their disassembled parts.

### **Pallet build-up**

Proper cargo preparation is vital to a successful mobility deployment. If the cargo is not prepared properly, the whole process slows down and valuable time is lost. Cargo is palletized to make loading and unloading as quick and easy as possible.

### *Safety*

There are several safety concerns that need to be addressed and adhered to while preparing and shipping cargo.

- Always wear steel-toed boots. The purpose for wearing steel-toed boots is to protect your toes in the event cargo is dropped on them. The sole should be spark resistant and able to repel oils or fuels.
- Always wear leather gloves. Gloves protect your hands from splinters, jagged edges, and metal bindings.
- Remove all jewelry. Remove all rings (even when wearing gloves) to prevent snagging, which could result in the loss of a finger. Bracelets, necklaces, and watches are hazards that may cause an accident that could have been prevented if items were removed.
- Wear reflective belt/vest during hours of darkness and during inclement weather (rain, fog, etc.)
- Wear hearing protection. Use hearing protection when working on or around aircraft and while operating MHE or other equipment that may cause hearing loss.
- Use proper lifting techniques. Lift with your legs, not with your back to help avoid unnecessary strains or other injury.

### *Pallet loading sequence*

When building pallets, there is a certain order you must use to ensure safety and maximum utilization of space, which is as follows:

- Separate all of the cargo that needs to be placed on the pallet by weight, size, type of cargo, and type of container.
- Dense, crated, and/or boxed items should be placed on the bottom center of the pallet and work outward and up (pyramiding). By pyramiding the cargo, you will have a balanced pallet and will avoid damaging lighter, more sensitive cargo.
- Hazardous cargo must be positioned so that the cargo deployment function (CDF) and the loadmaster have accessibility and are able to view the shipper's declarations for dangerous goods.
- There cannot be any metal-to-metal contact.
- Wheeled items, such as toolboxes, must be weighed to ensure they do not exceed the 250 pounds per square inch (psi) of the pallet.
- Any small-wheeled items must be secured separately on the pallet using straps.
- A plastic covering must be placed over the cargo prior to securing the pallet with the nets. Just like building the pallet, it is the unit's responsibility to obtain the plastic covering and place on the cargo.

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## **Self-Test Questions**

After you complete these questions, you may check your answers at the end of the unit.

### **634. Basic materiel handling and storage principles**

1. Which materiel handling principle provides the greatest economy in the movement of materiel?

2. Which principle seeks to reduce the time required to travel a given distance?
3. Which materiel handling principle results in reducing the costs of operation (i.e., the simplification of maintenance, repair, storage, and issue procedures)?
4. What problems can occur if you exceed rated equipment capacities?
5. What type of warehouse storage system includes many types of general-purpose racks, shelves, and bins?

**635. Reusable containers**

1. Whose responsibility is it to ensure a repair cycle item is returned in a reusable container?
2. What category of reusable containers has an exterior container usually made of metal, plastic, or synthetic materials?
3. What category of reusable containers should survive at least 10 round trips, and are usually made of plywood, wood, or fiberboard?



### 5-3. Threat Reduction Assets

The AF maintains custody of the most varied array of nuclear weapons and NWRM in the DOD, requiring a sophisticated, responsive, end-to-end logistics network to maintain their readiness. This network supports the air-launched cruise missile; the B-2A, B-52H, F-15E, and F-16C aircraft; and the C-17 for Prime Nuclear Airlift Force. This network supports versions of intercontinental ballistic missiles (ICBM) and cruise missile systems in the deactivation and/or DEMIL process. Positive inventory control of the assets within these systems is a top priority for the AF. We will begin by covering different types of threat reduction assets.

#### 636. Types of threat reduction assets

Property associated with threat reduction spans a wide range of types to include nuclear weapons, firearms, classified items, and those that handle sensitive information. It is imperative that you understand the safeguards that are applied to each type of threat reduction asset described in this lesson.

#### Nuclear weapons related materiel

For the purpose of accountable inventory controls, NWRM is defined as “classified or unclassified assemblies and subassemblies (containing no fissionable or fusionable materiel) identified by the military departments (MILDEP) that comprise or could comprise a standardized war reserve nuclear weapon (including equivalent training devices) as it would exist once separated/removed from its intended delivery vehicle.” The primary reference for NWRM is Chairman Joint Chiefs of Staff Instruction (CJCSI) 3150.04B, *Nuclear Weapons Stockpile Logistics Management and Nuclear Weapons Reports Under the Joint Reporting Structure*.

#### NWRM storage and warehouse management

Proper security and access controls are essential for NWRM storage. The following requirements apply to government-owned facilities (cages, containers, rooms, buildings, vaults, bays, supply points, etc.) including those operated by contractors. The following storage policies will be adhered to IAW AFI 20-110, *Nuclear Weapons-Related Materiel Management*, when storing NWRM:

- NWRM will be afforded priority for indoor storage
- Clearly mark NWRM storage areas
- Record and update NWRM storage locations in the Combat Ammunition System (CAS)

#### Small arms/Light weapons

The LRS mobility element is responsible for providing secure storage for weapons. Small arms are defined as the following: handguns; shoulder fired weapons; light automatic weapons up to and including .50 caliber machine guns; recoilless rifles up to and including 106 mm; mortars up to and including 81mm; rocket launchers, man-portable; grenade launchers, rifle and shoulder fired; and individually operated weapons which are portable and/or can be fired without special mounts or firing devices and which have potential use in civil disturbances and are vulnerable to theft.

#### Mobility weapons responsibility

The logistics readiness squadron commander (LRS/CC) is responsible for storing all mobility weapons, except when the using organization (CE, services [SVS], red horse, combat communications, etc.) agree to store their own weapons. All mobility weapons stored in the LRS will be maintained on one CA/CRL managed by the LRS. The LRS will only enter into a courtesy storage agreement if the weapons in question are funded by another MAJCOM, armed service, etc. An important fact to remember is only 80 weapons may be assigned per authorized-in-use detail. If more than one detail is required, the increment code will be numbered (mobility bag [MOBAG] 1, MOBAG2, MOBAG3, etc.). When weapons are stored and managed by the LRS, the mobility element noncommissioned officer in charge (NCOIC) will be, at a minimum, an alternate custodian for the weapons account.

### ***Control of weapons***

The LRS/CC ensures access to weapons, and weapon storage areas are controlled. Only authorized personnel are given access, and those individuals are designated in writing having authorization to perform duties associated with firearms protection and control. This designation will appear on the letter naming personnel authorized unescorted access/personnel authorized to issue and receive weapons. This letter identifies personnel who are authorized access to the LRS vault and will include each individual's name, rank/grade, duty title, security clearance level, and unit of assignment. These individuals must have current weapons qualifications. The letter will be posted inside the weapon storage areas and on file. Unless altered by the LRS/CC, personnel assigned to the MOBAG element will control access to weapons and be familiar with requirements IAW AFMAN 36-2655, *USAF Small Arms and Light Weapons Qualification Programs*, AFI 31-101, *Integrated Defense (ID)*, AFI 31-117, *Arming and Use of Force by Air Force Personnel*, AFI 36-2654, *Combat Arms Program*, AFM 21-209, Volume 1, *Ground Munitions*, Department of Defense Directive (DODD) 4500.9-R, *Defense Transportation Regulation-Part 1, Passenger Movement*, DODM 5100.76-M, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E)*, and all other applicable TOs.

### **Classified property and information**

Classified property is defined as materiel that requires protection in the interest of national security. Classified materiel will be given priority handling at all times. Classified property should never be left unattended. When receiving classified assets, authorized personnel must open all classified packages or containers and physically verify that the stock/part number on the item matches the stock/part number on the shipping document and identification tags, to include the serial number. Once verified, secure materiel appropriately and as soon as possible. Due to the nature of these assets, they need to be inventoried immediately upon being recognized as classified. There are three levels of classified materiel: top secret (CIC: T), secret (CIC: S), and confidential (CIC: C).

If the need arises to remove or issue classified property, classified cover sheets are placed on classified documents (AF Form 144, Top Secret Access Record and Cover Sheet, SF 704, Secret (Cover Sheet), and SF 705, Confidential (Cover Sheet)). Materiel management personnel will stamp or mark in red all DD Forms 1348-1A, copies and other applicable paperwork based on the controlled inventory item code (CIIC) of the materiel (i.e. top secret, secret, or confidential). Documentation will also be stamped with the phrase "CLASSIFIED ITEM" prior to issuing the materiel.

AF personnel are responsible for safeguarding classified information to which they have access. Collecting, obtaining, recording, or removing, for any unauthorized use whatsoever, of any sensitive or classified information, is prohibited.

### ***Controlled cryptographic items***

In March 1985, the category of communications security (COMSEC) equipment and components known as controlled cryptographic items (CCI) was formally introduced. Procedures were developed to facilitate the production, acquisition, and use of this new category of COMSEC materiel. The CCI concept was successful in promoting the broad use of secure telecommunications and information handling equipment ancillary devices, or associated cryptographic components, that are unclassified, but controlled. (Equipment and components so designated bear the designator "Controlled Cryptographic Item" or "CCI"). Today, CCIs are used to protect voice, record, and data communications processed by traditional national security telecommunications systems, and to provide network security for automated information systems.

Each activity having local accounting responsibility for CCIs must perform a complete physical inventory of its CCI holdings at periodic intervals according to the requirements applicable to the system in which the CCIs are accountable. Perform inventories for CCIs accountable within the Case Management Control System (CMCS) every six months. Perform inventories for accountable CCIs within the Air Force Equipment Management System (AFEMS) every 12 months. The periodic

interval between successive inventories may never exceed 12 months regardless of the accounting system used. This inventory must include all CCI equipment and uninstalled CCI components. The individual responsible for conducting the inventory (e.g., supply equipment custodian, COMSEC manager, COMSEC responsible officer, etc.) must physically view each CCI item.

### ***COMSEC serialized control items***

COMSEC refers to the measures and controls taken to deny unauthorized persons information derived from information systems of the United States Government related to national security and to ensure the authenticity of such information systems. COMSEC protection results from applying security measures to communications and information systems generating, handling, storing, processing, or using classified or sensitive government or government-derived information, the loss of which could adversely affect the national security interest. It also includes applying physical security measures to COMSEC information or materials.

Common physical security measures include verifying the need-to-know and clearance of personnel granted access, following proper storage and handling procedures, accurately accounting for all materials, transporting materials using authorized means, and immediately reporting the loss or possible compromise of materials. COMSEC information shall be controlled and protected IAW applicable national policy and DOD directives and instructions.

### **Sensitive items**

Sensitive items require a high degree of protection and control due to statutory requirements or regulations. These include narcotics and drug abuse items; precious metals; items which are of high value, are highly technical, or are of a hazardous nature; arms, ammunition, explosives and demolition materiel. The following table identifies the codes used to identify different levels of sensitive classification.

<b>Sensitive Information Levels and Meanings</b>	
<b>Level</b>	<b>Sensitive Classification</b>
1	HIGHEST SENSITIVITY (CAT I).
2	HIGH SENSITIVITY (CAT II).
3	MOD SENSITIVITY (CAT III).
4	LOW SENSITIVITY (CAT IV).
5	HIGHEST SENSITIVITY (CAT I) SECRET.
6	HIGHEST SENSITIVITY (CAT I) CONFIDENTIAL.
8	HIGH SENSITIVITY (CAT II) CONFIDENTIAL.
Q	CONTROLLED SUBSTANCE-SCHEDULE III/IV/V.
R	CONTROLLED SUBSTANCE-SCHEDULE I/II, Precious metals.
\$	This code identifies nuclear weapons use control (UC) ground equipment which is CIIC unclassified, but may require special controls. UC ground equipment is described as recorders, verifiers, adapters, power supplies, cables, programmers, monitors, controllers, code processors, power converters, computers, and data modules that perform a nuclear weapons UC function.

One of the more common sensitive items you may encounter as a materiel manager is small arms. You must physically verify serial numbers for all small arms during in-check, even if the container is sealed. After verifying that all arms in the container match the serial numbers, place them back in the container, as appropriate, and re-seal with the serial numbers identified on the outside of the container.

### **637. Physical security of threat reduction assets**

In order to achieve positive inventory control for NWRM, the management environment must demand each item is identified, accounted for, secured, segregated, and/or handled in a manner to ensure its safeguarding and integrity at all times. The characteristics of a positive inventory control system include:

- End-to-end asset visibility over the life cycle of each item.
- A single responsible party with the appropriate tools and authority to account for all assets in the supply chain at any point in time.
- Clearly defined individual accountabilities for all stakeholders in the supply chain with inventory control responsibilities, with an associated elevation of responsibility if actions do not occur as required.
- Automatic alerts and required actions when processes break down; unique identification and tracking of assets at the item level.
- Robust reconciliation processes for total asset accountability.
- Metrics to monitor all elements of the closed-loop process continually.

AF storage activities will maintain positive materiel control and visibility of inventory from wholesale down to and including retail inventories. The storage activity is responsible for the accuracy of the inventory under its control including units maintaining COMSEC and equipment in-use assets. AF organizations will formally designate, in writing, personnel authorized to accept controlled materiel IAW AFI 16-1404, *Air Force Information Security Program*, or other applicable directives. Only personnel authorized by the commander or equivalent are permitted to process receipt of controlled materiel into accountable records systems. Releasing activities will verify the identification of individuals and their authorization to accept controlled materiel prior to allowing them to sign for the materiel.

### **638. Proper inspection of threat reduction assets**

Proper inspection of threat reduction assets requires several steps to be taken in proper sequence. This lesson explains each step in the process: identification, condition, discrepancy reporting, receipt, storage, and physical movement of property.

#### **Identification**

Item inspection involves maintaining the proper condition and identity of items in storage. The LRS chief inspector will train LRS personnel who will handle controlled materiel. The chief inspector will conduct training semi-annually to maintain awareness and competence regarding proper management of controlled materiel. AF activities will open all containers and physically perform a bare asset inspection of all controlled materiel to verify the item identification on the actual property matches the receipt documentation. This includes materiel received in sealed containers, unless opening the container compromises the condition of the materiel.

#### **Condition**

The AF has defined positive inventory control as the ability to identify and account for the condition and location of materiel anywhere in the supply chain, including movement, maintenance, use, and disposal by a responsible agent at any point in time. This also includes securing assets in tightly controlled areas. Critical and code components require further special handling IAW the two-person concept. This minimizes the possibility that an unauthorized or inadvertent act could degrade the nuclear surety of a nuclear weapon or nuclear weapon system. In addition, code components are handled by specially trained and certified code handling teams. Any issue of code components to a code handling team or transfer of code components between code handling teams is meticulously recorded and strictly controlled.

During shipment, certified code components must be controlled by a courier team that is also qualified as a code handling team. All code components must be inventoried at 15, 30, and/or 90-day intervals as designated in Strategic Communications Command (STRATCOM) guidance. Numerous policies and procedures govern the storage, movement, maintenance, and use of all AF materiel, including what is defined as NWRM.

### **Discrepancy reporting**

All discrepancies (gains or losses) involving a classified item will constitute a potential compromise of classified information. AF activities will immediately secure materiel as appropriate, report all discrepancies to the security manager, and immediately begin research efforts (e.g., tracer action and SDR, warehouse refusal, ROS investigation, etc.).

### **Receipt**

Item receipt involves the physical receipt of materiel, the validation of a requirement for the materiel, and the forwarding of materiel to end users or storage locations. Do not leave classified materiel unattended except when it is secured in an approved classified storage area. Classified items will not remain on the receiving line for any reason. All copies of source documents for classified items must be stamped or handwritten in red ink with the words “classified item.” The receiving document is not classified; only the property is classified. Receiving activities utilize the shipping/ receiving documentation for controlled items that is stored inside packaging containers to verify item identification and to process receipt transactions.

Supply activities sign the DD Form 1907, Signature and Tally Record, (or carrier furnished document) to maintain custody accountability. The signed DD Form 1907 and signed DD Form 1348-1A, or other appropriate receiving document, begins the chain of receipt and documents the transfer of property as it moves through materiel management processes. Each property handler should keep a copy of these documents to illustrate whom they received the property from and whom it was given to.

### **Storage**

Item storage involves the physical handling, binning, and inventory of materiel. Controlled items (i.e., classified, weapons, COMSEC, NWRM) will receive immediate attention and be expediently moved and placed in the proper location. AF activities store controlled materiel according to the security classification and/or security risk, or pilferage controls designated for the item. All LRS materiel management activities will ensure controlled inventory items are safeguarded in approved warehouses and storage facilities. AF activities will clearly identify the item, classification, and serial number (as appropriate) for all controlled materiel being stored.

### **Physical property movement**

Specific inventory control processes include storage and physical property movement. Mapping efforts provide in-transit visibility (ITV) for materiel managers and include documenting the information system flows and the applicable regulations. The mapping efforts concentrate on processes associated with managing inventory held in base-level supply and maintenance, in-transit between facilities, and in depot maintenance and stockage points. This capability allows the materiel manager the ability to provide the customer with asset location in real time, all the time.

Critical components and code components require further special handling IAW the two-person concept. This minimizes the possibility that an unauthorized or inadvertent act could degrade the nuclear surety of a weapon or weapons system. In addition, code components are handled by specially trained and certified code handling teams.

### **639. Special handling of threat reduction assets**

Due to the lethal nature of threat reduction assets, it is extremely important that each component is meticulously tracked and managed through the materiel management system. This lesson will provide



you with an overview of the special handling precautions needed to exercise heightened control over these assets.

### **Documentation**

For controlled, sensitive, classified, and pilferable items, excluding FMS shipments, the shipping documentation is placed inside the container rather than on the outside. For classified shipments, markings that indicate the classified nature of the materiel and its security classification should not appear on the exterior of the container. Identification bar code markings are required. If the NSN is included as part of the identification markings, the linear (Code 39) bar code human readable interpretation (HRI) will also be displayed. However, if the NSN is omitted, the HRI is also omitted. The exception is for shipments of Defense Supply Center Philadelphia (DSCP) clothing and textiles (C&T) items, the HRI remains. Reference Military Standard (MIL-STD)-129R, *Military Marking for Shipment and Storage* for additional information regarding how to mark for shipment and store military items.

### **Reconciliation**

Reconciliation involves resolving variances between physical inventory balances and the balances on the accountable records.

### **Serialized control**

When dealing with an overage of a serialized control items, process a serialized asset inquiry in AFEMS and/or contact the applicable depot with the serial number of the asset. Attempt to identify the last owner of the asset by organization and shop code, and/or stock record account number (SRAN). COMSEC and weapons assets will not be returned with a TEX code + (plus). Once proper ownership is determined, the owning SRAN will use TRIC FED or REC to gain accountability.

### **Accountability**

Materiel management activities use a signed DD Form 1907 (or carrier furnished document) to maintain custodial accountability. The signed DD Form 1907 and signed DD Form 1348-1A or other appropriate receiving document will be placed together in an accountable document control record (DCR) file IAW AFMAN 23-122 Section 5E, *Document Control and Detail Records*.

### **Inventory**

To ensure threat reduction assets are properly accounted for, they must be inventoried to maintain accountability. To accomplish this, physical inventories will be conducted using the floor-to-book/book-to-floor method for all assets. This means physically checking the entire work area to ensure items are accounted for. Within the LRS, the inventory section will establish an inventory schedule by fiscal year to ensure items are inventoried at the designated frequency.

### **Shipment**

AF agencies do not requisition or transport AF-owned controlled materiel outside of normal military standard requisitioning and issue procedures (MILSTRIP). All AF activities coordinate acquisition, utilization, and transportation requirements for AF-owned controlled materiel with authorized agencies. AF activities only ship controlled materiel within MILSTRIP channels to maintain materiel visibility, accountability, and control. Each DD Form 1348-1A issued for the shipment of sensitive and classified items reflects the CIIC in block 9 and the word "SENSITIVE" or "CLASSIFIED" in block 17. An extra set of DD Forms 1348-1A (except confidential items) will be provided for use as a hand receipt for processing a shipment. The extra set will provide the CIIC, item identification, the word "SENSITIVE" or "CLASSIFIED" and a signature block. The unsigned copies are to be placed inside the inner shipping container for use by the consignee's receiving function when processing receipts.

**In-transit visibility**

In-transit transportation involves tracking the identity, status, and location of DOD units and non-unit cargo (excluding bulk petroleum, oils, and lubricants) and passengers, medical patients, and personal property from origin to consignee or destination across the range of military logistics operations.

**Disposal**

Reclamation/disposal includes processes to remove items from active inventory and retain components of those items still required by end users. These processes are exercised by an IM for a set of assigned stock numbers. In addition, the IM is responsible for the health of these assigned items to meet mission requirements.

**Organic/contract repair**

The AFMC's item management team accounts for threat reduction assets at both organic and contractor repair facilities. Additionally, the Defense Logistics Agency (DLA) provides information regarding inventory in their custody to finalize AF depot-level inventory results. DLA will also provide a separate report to the secretary of defense SECDEF regarding balances for assets located at DLA and under its control.

**Issue**

The issue of top secret, secret, and confidential materiel requires a signature of receipt on the voucher (original) file copy of the DD Form 1348-1A, or appropriate issue document by the person receiving custody of the materiel. Signed documents will be retained in document control files. AF bases operating under the materiel management system will use procedures contained in this chapter and in AFMAN 23-122, *Materiel Management Procedures*, Section 5B for the issue of controlled materiel at base level. Materiel management activities will not issue controlled materiel to individuals not identified on the most current classified receipt listing.

**Stock level**

Item assignment involves cataloging assets to assign system and item management responsibilities and unique item characteristics. Stock control involves the maintenance of adequate stock levels and item-status tracking to satisfy end user requirements. These processes are exercised by an IM for a set of assigned stock numbers. In addition, the IM is responsible for the health of these assigned items to meet mission requirements over the life cycle of each asset.

**Global Air Transportation Execution System**

Global Air Transportation Execution System (GATES) is the Air Mobility Command's (AMC) aerial port operations and management information system. Its primary function is to provide AMC, the DOD, and commercial partners with the capability to process and track cargo and passenger information, support management of resources, provide logistical support information, and generate standard and ad hoc reports at HQ and unit levels. GATES provides message routing and delivery service for virtually all aircraft data. It also reports ITV data to the Global Transportation Network, and billing information to AMC's financial management directorate. Authorized users may query GATES by passenger name, aircraft tail number, TCN, pallet ID, or mission number.

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**Self-Test Questions**

After you complete these questions, you may check your answers at the end of the unit.

**636. Types of threat reduction assets**

1. Define NWRM.



2. What is the primary reference used for NWRM?
3. Define classified property.

**637. Physical security of threat reduction assets**

1. What must the management environment demand to achieve positive inventory control of NWRM?
2. What AFI directs AF organizations to designate formally, in writing; personnel authorized to accept controlled materiel?

**638. Proper inspection of threat reduction assets**

1. Who is responsible for training personnel that will handle controlled materiel?
2. How often are code components inventoried as designated in STRATCOM guidance?
3. How are copies of source documents for classified items marked?

**639. Special handling of threat reduction assets**

1. For controlled, sensitive, classified and pilferable items, where are shipping documentation placed?
2. What is used to maintain custodial accountability?
3. Who is responsible for the health of assigned threat reduction items to meet mission requirements?
4. Who accounts for threat reduction assets at both organic and contract repair facilities?
5. GATES users can generate reports at what levels?

6. What information is used to query GATES?

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## Answers to Self-Test Questions

### 632

1. XB3.
2. (1) b.  
(2) a.  
(3) a.  
(4) b.  
(5) a.  
(6) b.
3. Each item on a bench stock.
4. 1BS.
5. 2BS.
6. When items are placed on bench stock that are not supported by past demands.
7. An excess exception code.

### 633

1. Only when there are substantial changes in consumption patterns.
2. The using activity.
3. The item is extended until the next review.
4. Three.
5. The M04.
6. Within one workweek.
7. Annually.

### 634

1. The least handling is the best handling.
2. Straight-line flow.
3. Standardized equipment.
4. Excessive wear and tear on the equipment and increased accident potential.
5. SAS.

### 635

1. Maintenance activity.
2. Long life.
3. Short life.

### 636

1. Classified or unclassified assemblies and subassemblies (containing no fissionable or fusionable materiel) identified by the military departments (MILDEP) that comprise or could comprise a standardized war reserve nuclear weapon (including equivalent training devices) as it would exist once separated/removed from its intended delivery vehicle.
2. CJCSI 3150.04B.
3. Materiel that requires protection in the interest of national security.

**637**

1. A management environment must ensure each item is identified, accounted for, secured, segregated, and/or handled in a manner to ensure its safeguarding and integrity at all times.
2. AFI 31-404.

**638**

1. LRS chief inspector.
2. At 15, 30, and/or 90 days intervals.
3. In red ink with the words "Classified Item." It can be stamped or handwritten.

**639**

1. Inside all containers rather than on the outside.
2. DD Form 1907 or carrier furnished document.
3. Item manager (IM).
4. AFMC item management team.
5. HQ and unit levels.
6. Passenger name, aircraft tail number, transportation control number (TCN), pallet ID, or mission number.

**Complete the unit review exercises before going on to the next unit.**

## Unit Review Exercises

**Note to Student:** Consider all choices carefully, select the *best* answer to each question, and *circle* the corresponding letter.

**Please read the unit menu for unit 6 and continue ➔**

## **Student Notes**

## Unit 6. Asset Management, Enterprise Solutions-Supply, and Materiel Management Products

<b>6–1. Asset Management .....</b>	<b>6–1</b>
640. Asset management concept.....	6–1
641. Management reports .....	6–2
<b>6–2. Enterprise Solutions-Supply.....</b>	<b>6–8</b>
642. Process asset query .....	6–8
643. Process orders query .....	6–9
644. Research audit trail .....	6–11
<b>6–3. Materiel Management Systems .....</b>	<b>6–15</b>
645. Air Force Materiel Command automated systems.....	6–15
646. Defense Logistics Agency automated systems .....	6–16
647. Supply Interface System.....	6–17
648. Logistics, installations, and mission support-enterprise view.....	6–18

**T**O ENHANCE MATERIEL MANAGEMENT WAREHOUSE PROCESSES, the AF has implemented an automated system called Asset Management (AM). The Enterprise Solution–Supply (ES–S) AM capability incorporates the tracking and automatic identification technology (AIT) functionality. AM is used in all phases of the materiel management warehouse process, from receiving to delivery of assets to our customers. Therefore, it is important as a materiel management systems analyst that you are familiar with AM concepts, functions, and equipment.

### 6–1. Asset Management

Through automation, AM enhances all warehouse processes and provides users access to the Materiel Management System and total visibility of assets throughout the LRS. With the use of mobile devices, users can process daily activities, such as pulling items from wherever they are in the warehouse.

#### 640. Asset management concept

AM was developed to improve the process of tracking assets through base level materiel management channels, to reduce the amount of paper produced and stored in the warehouse, to allow bar code scanning of items to reduce data entry errors, and speed data in the LRS. AM provides automation in the receiving area, the flow of assets, and provides real-time access to asset information in the AM database. Bar-coded labels, identification numbers, and personnel common access cards (CAC) are used throughout the system to track and move assets through materiel management channels and to clear DCRs within the Materiel Management Accounting System.

AM facilitates collecting data from warehouse processes; inputting Materiel Management System transactions; and processing DD Forms 1348–1A, notices to stock, and reject/management notices captured from the Materiel Management System.

The AM AIT used to facilitate this input/output processing includes bar coding assets and warehouse locations, the use of portable label printers, and CACs. AM AIT provides AF Materiel Management personnel with: (1) a reduction in data entry errors, (2) an increase in the timeliness of the data flow to and from the Materiel Management System, and (3) real-time access to asset information.

All individuals who receive assets from LRS must have a customer record loaded in ES-S. LRS customers possessing CACs can self-register in ES-S. ES-S is accessed through the Air Force Portal and it has CAC-only access to the application. Once an individual establishes a supply record, the

maintain customer function in ES-S allows authorized users to update customer records for individuals who receive classified material or equipment assets.

### 641. Management reports

As a materiel manager, your primary goal is to ensure the customer receives the asset they order, in a serviceable condition and in a timely manner. To ensure this happens on a daily basis, you will have to utilize the reports under AM menu functions. These important reports ensure customers are not waiting for their assets also confirm received assets are being secured in LRS warehouses.

#### Reviewing management reports

AM reports are accessed by way of the AM drop-down menu on the ES-S home page (fig. 6-1).

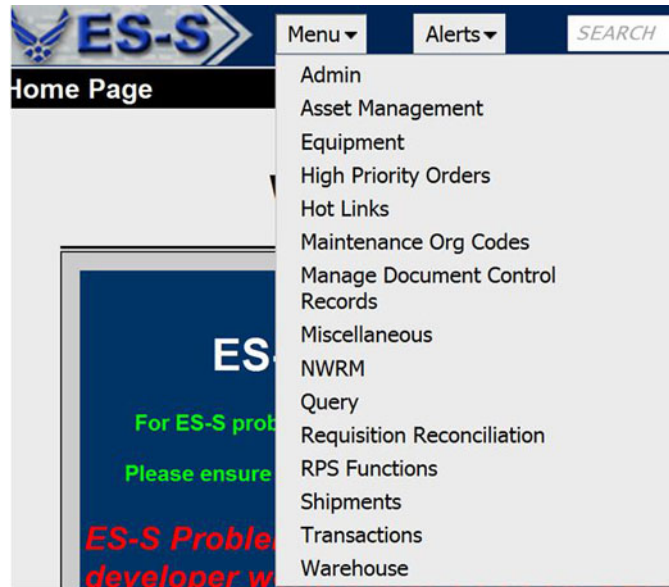


Figure 6-1. Asset management report access.

The reports are categorized into the following:

- All open records.
- Creation to delivery times.
- Customer validation.
- Inactive customers.
- Items delivered.
- Items not pulled.
- Items not put away.
- Items not received.
- Items put away.
- TCNs received.

For the purpose of this career development course (CDC), we will cover the four most commonly used management reports: (1) items not pulled, (2) items not put away, (3) items not received by customer, and (4) other reports. As a materiel management journeyman, you will most likely use these reports to execute your day-to-day duties.

## Items not pulled

This report displays all items not pulled based on the report criteria selected by the user. To run the report, users must follow the steps below from the menu:

1. Select AM.
2. Select reports.
3. Finally, select items not pulled.

The report criteria entry page is then displayed. The entry page consists of three sections used to filter which records are retrieved on the selected report. Figure 6-2 below shows an example of a report criteria entry for items not pulled.

Figure 6-2. Report criteria entry for items not pulled.

The user can search by SRAN and any of the following combinations: TRIC, priority, NWRM only, stock number, document number, created date/time (range), or warehouse location (range). A sample items not pulled report is displayed in fig. 6-3.

Results												
Select	Asset Mgt ID	TRIC	NWRM	Stock Number	Document Number	Unit Of Issue	Quantity	Location	Pull Assigned To	Created By	Created Date	Priority
<input type="checkbox"/>	0098172230XQ	SHP		06100115583150C	FB060672230014	EA	1			essystem	11 Aug 2017:1341	15
<input type="checkbox"/>	0098172230Y8	SHP		06100115583150C	FB060672230042	EA	1			essystem	11 Aug 2017:1347	15
<input type="checkbox"/>	0098172230D6	SHP		06100115583150C	FB060672230024	EA	1			essystem	11 Aug 2017:1343	15
<input type="checkbox"/>	0098172230Y9	SHP		06100115583150C	FB060672230030	EA	1			essystem	11 Aug 2017:1344	15
<input type="checkbox"/>	0098172230XV	SHP		06100115583150C	FB060672230020	EA	1			essystem	11 Aug 2017:1342	15
<input type="checkbox"/>	0098172230Y1	SHP		06100115583150C	FB060672230032	EA	1			essystem	11 Aug 2017:1345	15
<input type="checkbox"/>	0098172230Y9	SHP		06100115583150C	FB060672230044	EA	1			essystem	11 Aug 2017:1348	15
<input type="checkbox"/>	0098172230XY	SHP		06100115583150C	FB060672230026	EA	1			essystem	11 Aug 2017:1343	15
<input type="checkbox"/>	0098172230XW	SHP		06100115583150C	FB060672230022	EA	1			essystem	11 Aug 2017:1343	15
<input type="checkbox"/>	0098172230XZ	SHP		06100115583150C	FB060672230028	EA	1			essystem	11 Aug 2017:1344	15
<input type="checkbox"/>	0098172230XT	SHP		06100115583150C	FB060672230016	EA	1			essystem	11 Aug 2017:1342	15
<input type="checkbox"/>	0098172230Y2	SHP		06100115583150C	FB060672230034	EA	1			essystem	11 Aug 2017:1345	15
<input type="checkbox"/>	0098172230Y8	SHP		06100115583150C	FB060672230038	EA	1			essystem	11 Aug 2017:1346	15
<input type="checkbox"/>	00981722863L	MSI		1270012308578FX	S2003M5560001	EA	1	S001A001		essystem	14 Aug 2017:1317	02
<input type="checkbox"/>	0098172180BY	MSI		1270012308578FX	S201E587780001	EA	5	S001A001		essystem	07 Aug 2017:1807	03
<input type="checkbox"/>	0098172180BT	MSI		1270012308578FX	S201E586270001	EA	1	S001A001		essystem	07 Aug 2017:1807	03
<input type="checkbox"/>	00981722863D	MSI		1270012308578FX	S2003M38620001	EA	1	S001A001		essystem	14 Aug 2017:1316	02

Figure 6-3. Items not pulled report results.

## Items not put away

The following steps are used to retrieve the items not put away report:

1. Select AM.



2. Select reports.
3. Select items not put away.

The user can filter through this page based on the selected criteria. Figure 6-4 shows three sections that can be used to select which records are retrieved on the selected report: report criteria, move to history and print options. The data in this report can be very helpful for determining what property has been received but has not made it to stock. A sample of the items not put away report is displayed in figure 6-5.

Figure 6-4. Report criteria entry for items not put away.

Asset Management - Items Not Put Away Report											
Report Criteria											
Move To History											
1348-1A Print Options											
Results											
Select	Asset Mgt ID	NWRM	Stock Number	Document Number	Unit Of Issue	Quantity	Location	Temp Loc	Created By	Created Date	
<input type="checkbox"/>	009917220001		1830011401949	U406A104080009	EA	1	B06A1		esssystem	08 Aug 2017:1903	
<input type="checkbox"/>	009917220002		1830011401949	U406A104080009	EA	1	B06A1		esssystem	08 Aug 2017:1903	
<input type="checkbox"/>	009917220003		1830011401949	U406A104100009	EA	1	B06A1		esssystem	08 Aug 2017:1903	
<input type="checkbox"/>	009917220004		1830011401949	U406A104300009	EA	1	B06A1		esssystem	08 Aug 2017:1906	
<input type="checkbox"/>	009917228E8J		1560008601912FL	U406A100390003	EA	1	B06A2		esssystem	16 Aug 2017:0933	
<input type="checkbox"/>	009917220005		1560008601912FL	U406A102460003	EA	1	B06A2		esssystem	08 Aug 2017:1504	
<input type="checkbox"/>	009917228E9J		1560008601912FL	U406A100710003	EA	1	B06A2		esssystem	16 Aug 2017:0936	
<input type="checkbox"/>	009917228E9K		1560008601912FL	U406A100750003	EA	1	B06A2		esssystem	16 Aug 2017:0936	
<input type="checkbox"/>	009917228E7F		1560008601912FL	U406A100130003	EA	1	B06A2		esssystem	16 Aug 2017:0929	
<input type="checkbox"/>	009917220006		1560008601912FL	U406A103100003	EA	1	B06A2		esssystem	08 Aug 2017:1511	
<input type="checkbox"/>	009917220007		1560008601912FL	U406A103380003	EA	1	B06A2		esssystem	08 Aug 2017:1514	
<input type="checkbox"/>	009917220008		1560008601912FL	U406A103900003	EA	1	B06A2		esssystem	08 Aug 2017:1515	
<input type="checkbox"/>	009917220009		1560008601912FL	U406A102400003	EA	1	B06A2		esssystem	08 Aug 2017:1504	
<input type="checkbox"/>	009917228E8B		1560008601912FL	U406A100310003	EA	1	B06A2		esssystem	16 Aug 2017:0932	
<input type="checkbox"/>	00991722000A		1560008601912FL	U406A103320003	EA	1	B06A2		esssystem	08 Aug 2017:1512	
<input type="checkbox"/>	00991722000B		1560008601912FL	U406A103540003	EA	1	B06A2		esssystem	08 Aug 2017:1515	
<input type="checkbox"/>	009917228E9A		1560008601912FL	U406A100770003	EA	1	B06A2		esssystem	16 Aug 2017:0936	

Figure 6-5. Item not put away report results.

### Items not received by customer

This particular report shows all items that have not been received by the customer for the given selection criteria. To run the report, follow the procedures below using the main AM menu:

1. Select AM.
2. Select reports.
3. Finally, select items not received.

A report criteria entry page is then displayed. This screen also consists of three sections that can be used to filter which records are retrieved based on the selected report. An example of the report criteria entry page for items not received is provided in figure 6-6.

### Asset Management - Items Not Received Report

**Report Criteria**

**\* SRANs** :

**TRICs** :

**PRIORITIES** :

**NWRM ONLY** : ☐

**STOCK NUMBER** :

**DOCUMENT NUMBER** :

**ORG SHOP CODE** :

**Created Date (Range)** Note: The date criteria is based upon UTC and NOT the local timezone.  
**FROM DATE** :   **TO DATE** :

**Warehouse Location (Range)**  
**FROM** :  **TO** :

Rows Per Page :   
   
 Update Profile (with current selectio

Figure 6-6. Report criteria entry for items not received report.

The filter criteria area contains data entry blocks for the user to specify selection criteria. The user can search by SRAN and any of the following combinations: TRIC, priority, NWRM only, stock number, document number, org/shop code, created date/time (range), or warehouse location (range). Managers throughout the LRS community will have a high interest in this particular report, as it provides a snapshot of the effectiveness of meeting customer requirements with on-the-shelf assets. A sample of the items not received report is displayed in figure 6-7.

Results															
Select	Asset Mgt ID	TRIC	NWRM	Stock Number	Document Number	Priority	Unit Of Issue	Quantity	Location	Temp Loc	Pulled By	Pulled Date/Time	Created By	Created Date	Off Base Flag
<input type="checkbox"/>	600817136806	ASJ		1900008948325	FB060671430070	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	23 May 2017:1514	@SCHOOLHOUSE	23 May 2017:1514	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730039	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0823	@SCHOOLHOUSE	22 Jun 2017:0823	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730040	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0824	@SCHOOLHOUSE	22 Jun 2017:0824	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730041	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0825	@SCHOOLHOUSE	22 Jun 2017:0825	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730042	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0825	@SCHOOLHOUSE	22 Jun 2017:0825	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730043	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0825	@SCHOOLHOUSE	22 Jun 2017:0825	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730044	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0826	@SCHOOLHOUSE	22 Jun 2017:0826	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730045	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0826	@SCHOOLHOUSE	22 Jun 2017:0826	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730046	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0826	@SCHOOLHOUSE	22 Jun 2017:0826	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730047	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0827	@SCHOOLHOUSE	22 Jun 2017:0827	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730048	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0827	@SCHOOLHOUSE	22 Jun 2017:0827	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730049	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0827	@SCHOOLHOUSE	22 Jun 2017:0827	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730050	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0827	@SCHOOLHOUSE	22 Jun 2017:0827	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730051	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0827	@SCHOOLHOUSE	22 Jun 2017:0827	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730052	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0827	@SCHOOLHOUSE	22 Jun 2017:0827	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730053	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0827	@SCHOOLHOUSE	22 Jun 2017:0827	N
<input type="checkbox"/>	600817137280VJ	ASJ		62400037248415X	FB060671730054	15	EA	1	NO WHSE LOC		@SCHOOLHOUSE	22 Jun 2017:0827	@SCHOOLHOUSE	22 Jun 2017:0828	N
													essystem		

Figure 6-7. Items not received report results.

### Other reports

The following are other AM reports available to users. To access these reports, click on the “admin” tab in the reports menu screen or select the action button and then select “admin.”

- Status of receipts.
- Pull denials.
- Status of TINs.

- User list.
- User access.
- Unauthorized handling of items.
- User verification.
- Customer list.
- Authorized organizational signatures.
- Classified signatures.
- Errors.
- Materiel Management Accounting System transaction history.

#### Asset management report access

Reports are accessed by way of the AM drop-down menu on the ES-S home page (figure 6–8). These reports are categorized by all open records, creation to delivery times, customer validation, inactive customers, items delivered, items not pulled, items not put away, items not received, items put away, and TCNs received.

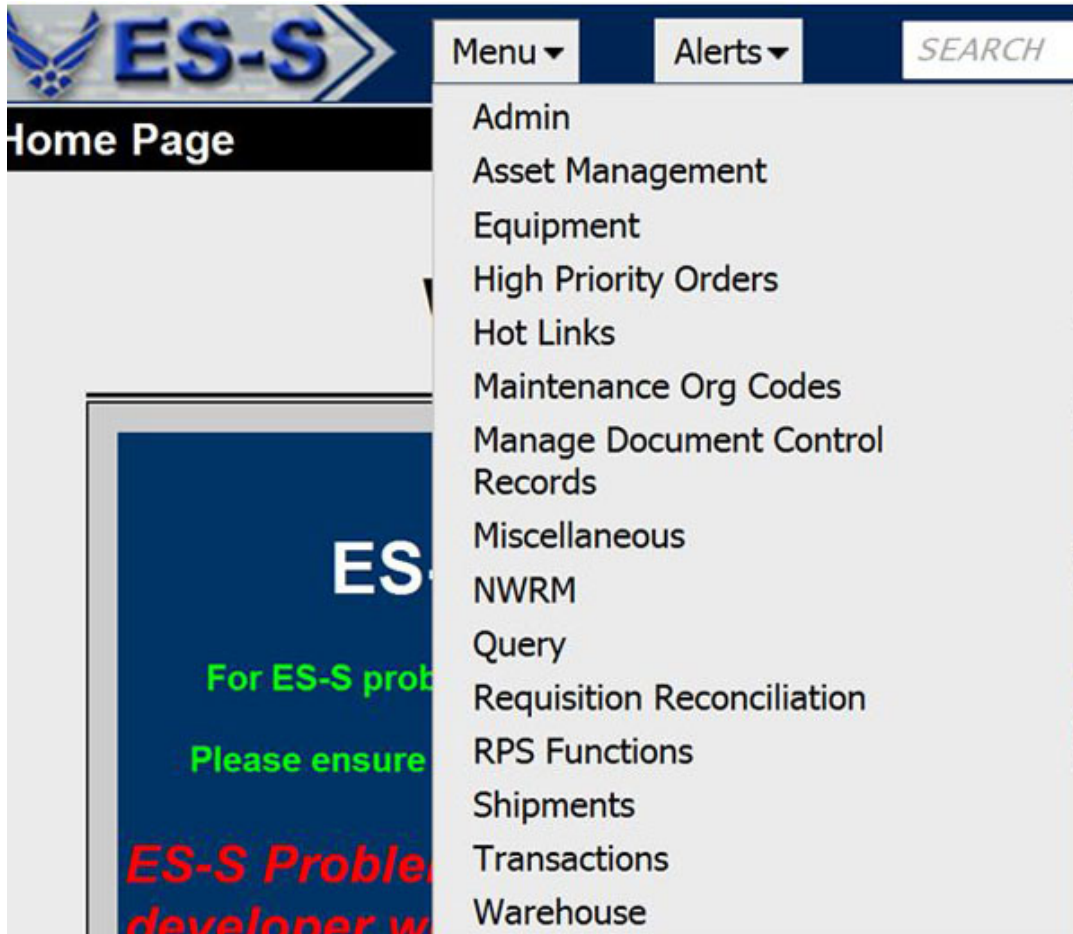


Figure 6–8. Asset management report access.

## Self-Test Questions

After you complete these questions, you may check your answers at the end of the unit.

### 640. Asset management concept

1. The Asset Management system uses which type of automated software to provide materiel management personnel with: (1) a reduction in data entry errors, (2) an increase in the timeliness of the data flow to and from the Materiel Management System, and (3) real-time access to asset information?
2. What function in ES-S is available to users who want to update their customer records?

### 641. Management reports

1. What report displays all items not pulled, based on user-selected criteria?
2. To pull the items not received, by customer report or really any report, what is the first thing you need to do at the ES-S home page?
3. What type of selection data is used to filter what is displayed on the items not received report?
4. List the ES-S AM report categories.

## 6-2. Enterprise Solutions-Supply

ES-S is a flexible, easy to use reporting tool that provides meaningful information, throughout the supply domain, that can be readily obtained. It provides the capability to process single item orders and manage order status. Materiel management chain stakeholders can use the improved information to enhance the effectiveness of war fighters by providing the right part to the right place at the right time, resulting in higher MICAP rates. This lesson covers processing asset queries, processing order queries, researching audit trails, and processing SBSS transactions.

In order to use ES-S, you must have the following: a local area network (LAN) connection, Internet Explorer 5.5 or greater, and an Air Force Portal account. You will be assigned a role upon authorization to use ES-S. Different user roles are either granted or denied access to certain functions based on the need to access those functions to perform their tasks. If you currently have access, it's a very good idea for you to follow along in this discussion. The "hands-on" experience while reading this lesson will enrich the overall learning experience. Let's begin with processing asset queries.

### 642. Process asset query

ES-S provides the customer with the capability to make repair, deployment, sourcing, maintenance, acquisition, re-distribution, forecasting, and other management decisions. The enterprise asset visibility (EAV) component of ES-S provides the capability to view assets across the logistics chain community to include base supply, depot retail supply and wholesale supply. The intent is to provide complete visibility of AF-owned assets in order for Airmen at every level of leadership to be able to make the best possible decision.

When you wish to view the assets available across the enterprise, complete the "asset inquiry page," shown in figure 6-9. The asset inquiry page is separated into two blocks: "Search by NSN/national item identification number (NIIN)" and, "Filter results by DODAAC." Searching by the NSN/NIIN block provides the option to enter an NSN/NIIN for the query along with the number of rows to display per table returned from the database. The filter by the DODAAC option allows you to tailor the search by entering one, and up to twenty DODAACs by which to filter. The interchangeable and substitute assets are automatically returned with the assets query; therefore, no interchangeable and substitution group (I&SG) button is visible for the user to select. Begin by:

1. Enter the NSN or the NIIN in the applicable block. The NSN must be 13 or 15 alphanumeric characters in length, and the NIIN must be 9 alphanumeric characters. The "NSN/NIIN" field is also used for the entry of locally assigned or special stock numbered items. Locally assigned or special stock numbered items can be in the range of 6-15 alphanumeric characters in length (2-11 for the NIIN portion). The NSN/NIIN is a required field.
2. Enter the number of rows you wish to have displayed per table. This field is three numeric characters in length.
3. Enter the individual DODAACs to filter by, or select a DODAAC list.

If you elect not to filter by specific DODAAC(s), you may instead filter by the following preset lists available from the drop-down menu:

- All base retail.
  - All depot retail.
  - All wholesale.
  - All DODAAC.
4. Click on the find button, shown at the bottom of figure 6-9, to display the "asset inventory information page" shown below in figure 6-10.



**Asset Inquiry**

You are here ⇒ Asset Inquiry

**Search by NSN/NIIN**

\*NSN / NIIN:

Number of rows to display per table:

**Filter by DoDAAC**

List Name:

\*DoDAAC List (1-20 DoDAACs, separated by commas)

\*indicates field is required

Figure 2-33. Asset Inquiry Page.

Figure 6-9. Asset inquiry page.

Asset Inventory Information

Search by NSN/NIIN/AF Number

General Information

NSN / NIIN: 012899651  
Filter by DoDAAC: ALL  
Item Name: INDICATOR,AZIMUTH A  
Part Number:  
BOSS Code:19C01

Source of Supply: FLZ  
ERRC / ERRCD: T/XD2  
Budget Code: 8  
Cage Code:  
IUID Item No:

Manager Review Code:  
Unit of Issue: EA  
Standard Price: 124247.52  
Acquisition Advice Code: V

Response Information

Response Summary: Requested: 294 ● Listed: 14 ● Not Loaded: 280 ● Unresponsive: 0

Error Messages: None

Detailed Information

Tue 05 Sep 2017 10:24:1

AssetsManagement DataCatalog DataI & S DataPrice DataRIMCS Data

Actual Stock Number	DoDAAC	ISG OOU	IC	Cnd Cl	Peace Lvl	War Lvl	War Bal	War Acc	Sec	Sec Acc	Unsec	Equipment	SPRAM	Bench Stock	TOC/Other	DOH DFM	DOTM	JCS Auth Qty	DO	DI	TC	WP	SVC Asset Ratio	BAR
Group has 2 NSN(s)	ABA						0	0	22	22	15				0	0	0					0		4.33 (+10)
5065010891745EW	ABA						0	0	0	0	0				0	0	0					0		
5065012899651EW	ABA						0	0	22	22	15				0	0	0					0		
5065012899651EW	FB2065	ABA			1				1	1						0	0		0	0	9			
Group has 2 NSN(s)	FB2067			1M	0	0	0	0	0	0	0	1			0	0	0	0	0	0	9	0		0.00 (+0)
5065010891745EW	FB2067	AAA	M	1M	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	9	0		
5065012899651EW	FB2067	ABA	I	1M	0	0	0	0	0	0	0	1	0	0	0	0	0		0	0	9			
5065012899651EW	FB2923	ABA		1M	0	0	0	0	4	4	0	0	2	0	0	0	0	0	0	0	9	90004	90004	(+4)
5065012899651EW	FB4852	ABA		1C	0	0	0	0	0	0	0	0	2	0	0	0	0		0	0	1	0		0.00 (+0)
5065012899651EW	FB4897	ABA		1C	0	0	0	0	0	0	0	0	1	0	0	0	0		0	0	3	0		0.00 (+0)
5065012899651EW	FB5270	ABA		0R	3	0	0	0	3	3	0	0	2	0	0	0	0		0	0	A	1.00	1.00	(+0)

Figure 6-10. Asset inventory information page.

### 643. Process orders query

ES-S provides the capability to query and view orders in the Materiel Management System, D035A, and D035K legacy programs. This is accomplished by inputting selection criteria to return an order or a list of orders. Once the order or list of orders is returned, you may select an order to display details about the order.

The first step in this process is to select the data to be returned. This is performed on the “order selection page,” (shown in figure 6-11), that is selected by clicking on menu, query, and order.

Figure 6-11 Order selection page.

The order selection page consists of three main areas: data source, search value, and DODAAC. The data source portion indicates which system should be queried first. Available options consist of retail, wholesale-Stock Control System (SCS), or wholesale-DLA. The search value box includes: NSN/NIIN due-in and due-out document number, (with or without I&SG data). The DODAAC box allows the search to be tailored based upon the DODAAC(s) that are used to filter returned records.

### Enter specific search value

The “NSN/NIIN” field is used to input an NSN or an NIIN for retrieval of asset information. The NSN must be 13 or 15 alphanumeric characters in length, and the NIIN must be nine alphanumeric characters. The “NSN/NIIN” field accepts the entry of locally assigned or special stock numbered items. Locally assigned or special stock numbered items can be in the range of 6–15 alphanumeric characters in length (2–11 for the NIIN portion).

Check the “return I&SG data” checkbox if you wish to request that all orders against members of an interchangeability and substitutability (I&S) family be retrieved. This checkbox is optional and defaults to “OFF” on page initiation. If the checkbox is left “OFF” for an NSN/NIIN that is a member of an I&S family, only the orders against the entered NSN/NIIN are returned.

As shown earlier on figure 6-11, click on the find button to submit the order selection data to the database to filter and sort the query results for display on the order list page. Click on the reset button to clear all fields on the page and to return the fields to the original state when the order selection page was initially displayed.

### Order list page

The order list page, shown in figure 6-12, displays all of the order data returned from a successful query. The order list page provides the user with order details based on the primary selection criteria.

Figure 6-12. Order list page.

## 644. Research audit trail

With the “audit data query” function, you have the ability to query all ES-S transactions from a single user interface. This enables you to efficiently query transaction information for internal and external audits. To perform a query using the audit trail query screen shown in figure 6–13 select

1. Menu
2. Query
3. Audit trail.

### Query selection criteria

When the “data query—select key field criteria” screen appears, as shown in figure 6–13, you have the option of performing the query, based on any variety of key fields, to return the data that you wish to review. The more key fields that you enter, the narrower your search results will be. Each system defines query keys that are specific to that system. These keys apply to every transaction in the system that contains that key information as part of the extensible markup language (XML) body. Not every transaction for the system will contain every key.

Figure 6–13. Data query—select key field criteria screen.

Enter your search criteria in the appropriate key fields and click the submit button. Depending upon how narrow your criteria were, either a single result, or multiple results will be returned. The report format will display fields for each transaction that met the selection criteria.

### Audit record search results

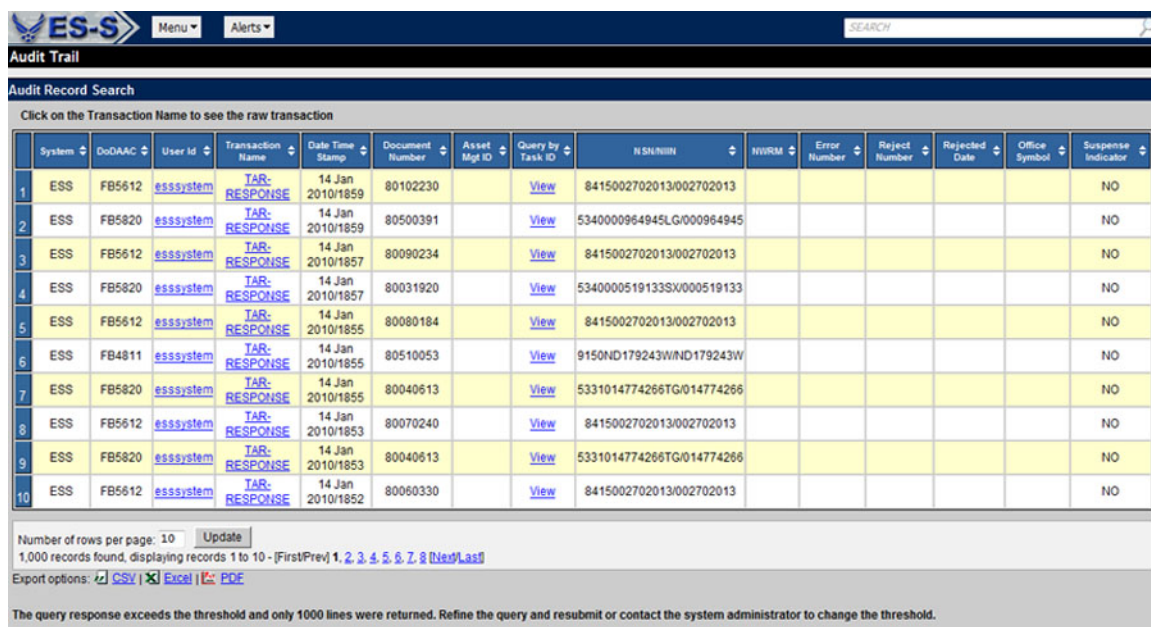
Transactions that meet selection criteria will display the following fields in the report format.

- System.
- DODAAC.
- User ID (hyperlink to display user’s profile).
- Transaction name (hyperlink to transaction details).
- Date time stamp.



- Document number.
- AM ID.
- Query by task ID (hyperlink to change results to transactions with same task ID).
- NSN/NIIN.
- NWRM.
- Error number.
- Reject number.
- Rejected date.
- Office symbol.
- Suspense indicator.

Figure 6-14 is an example of audit trail query results.



	System	DoDAAC	User Id	Transaction Name	Date Time Stamp	Document Number	Asset Mgt ID	Query by Task ID	NSN/NIIN	NWRM	Error Number	Reject Number	Rejected Date	Office Symbol	Suspense Indicator
1	ESS	FB5612	esssystem	TAR-RESPONSE	14 Jan 2010/1859	80102230		<a href="#">View</a>	8415002702013/002702013						NO
2	ESS	FB5620	esssystem	TAR-RESPONSE	14 Jan 2010/1859	80500391		<a href="#">View</a>	5340000964945LG/000964945						NO
3	ESS	FB5612	esssystem	TAR-RESPONSE	14 Jan 2010/1857	80090234		<a href="#">View</a>	8415002702013/002702013						NO
4	ESS	FB5620	esssystem	TAR-RESPONSE	14 Jan 2010/1857	80031920		<a href="#">View</a>	5340000519133SX/000519133						NO
5	ESS	FB5612	esssystem	TAR-RESPONSE	14 Jan 2010/1855	80080184		<a href="#">View</a>	8415002702013/002702013						NO
6	ESS	FB4811	esssystem	TAR-RESPONSE	14 Jan 2010/1855	80510053		<a href="#">View</a>	9150ND179243W/ND179243W						NO
7	ESS	FB5620	esssystem	TAR-RESPONSE	14 Jan 2010/1855	80040613		<a href="#">View</a>	5331014774266TG/014774266						NO
8	ESS	FB5612	esssystem	TAR-RESPONSE	14 Jan 2010/1853	80070240		<a href="#">View</a>	8415002702013/002702013						NO
9	ESS	FB5620	esssystem	TAR-RESPONSE	14 Jan 2010/1853	80040613		<a href="#">View</a>	5331014774266TG/014774266						NO
10	ESS	FB5612	esssystem	TAR-RESPONSE	14 Jan 2010/1852	80060330		<a href="#">View</a>	8415002702013/002702013						NO

Number of rows per page: 10 [Update](#)

1,000 records found, displaying records 1 to 10 - [First](#) [Prev](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [Next](#) [Last](#)

Export options: [CSV](#) [Excel](#) [PDF](#)

The query response exceeds the threshold and only 1000 lines were returned. Refine the query and resubmit or contact the system administrator to change the threshold.

Figure 6-14. Data query—query results.

If multiple transaction records have been returned, click on the “transaction name” hyperlink for the transaction you wish to view. The “data query—query results” screen, as shown in figure 6-15, will display the raw record and audit record fields.

The type of transaction will be identified in the audit record fields window, along with each field entered when the transaction was created with XML tags. To return to the “data query—query results” screen, click “close.” Click “close” again to return to the “data query—select key field criteria” screen. Click “close” again to return to the “home” screen.



2. What is the minimum and maximum DODACCs that can be searched when using the filter by DODAAC?

**643. Process orders query**

1. In what three legacy programs does ES-S provide the capability to query and view orders?
2. What are the three sections of the order selection page?
3. What allows the search to be tailored to filter returned records?
4. When viewing the order list page, what are the order details based on?

**644. Research audit trail**

1. What function enables you to efficiently query transaction information for internal and external audits?
2. When using the audit data query function, how does entering multiple key fields affect your results?

### 6-3. Materiel Management Systems

There are many other automated data systems (ADS) that interface with the SBSS. Some systems have a major impact on the SBSS while others have only a minor role. All of these systems working together make the AF logistics system function efficiently.

#### 645. Air Force Materiel Command automated systems

Wholesale interfaces record and process all transactions between the base level and wholesale supply accounts. You can view these systems to verify information about your requisitions. We have selected some of the more common interfaces from the AFMC, many of which can now be accessed via the Internet. The Stock Control System is used as our interrogation sample below.

#### Stock Control System—D035

SCS is the core of AM, encompassing requisition processing, inventory accounting, and returns management. SCS is an on-line system that combines the issue, shipment, receipt, and transfer of wholesale and retail material. The two primary system components that make up the SCS D035 are the D035A and D035E.

##### *D035A*

The D035A program provides access to the IM's listings of current requisitions along with their status. You may verify information on requisitions for your activity with the depot data. This includes data such as the supplementary address, required delivery dates, priorities, quantities, and signal codes. Changes in status may be of importance to the MICAP monitors, so you should alert them to any changes, (such as status changes), that affect their requisitions.

##### *D035E*

D035E is an AF-managed system that identifies a component's ERRCD and computes user stock levels for selected repairable (ERRCD XD) items. The D035E then provides the levels to the recorded users with available stock. To compute central levels, used in lieu of local levels computed by each user, readiness-based leveling (RBL) receives usage data requirements information from interfacing systems. This system allocates worldwide requirements among AF bases and depots to lower expected back orders. RBLs replace the SBSS-computed demand levels and become the requisitioning objective.

#### Recoverable Assembly Management Process System

The purpose of the RAMPS is to maintain visibility of AF-owned recoverable assets and levels by reporting worldwide locations. The system also provides visibility of asset data for all critical items, regardless of recoverability. The system records daily user data to maintain a current, concurrent, and consistent database for use by IMs and mechanized systems. RAMPS provides a stock number transaction history and an interrogation capability to display this history. It provides a means of maintaining base order and shipping time (O&ST) by SRAN in-transit quantities. The (O&ST) is then provided to the Recoverable Consumption Item Requirements System—D041. RAMPS also receives and summarizes stock balance and consumption report transaction data for recoverable items. RAMPS summarizes data by stock number, SRAN, purpose code and U/I. Based on this data, RAMPS can provide base repair cycle time and usage data to the D041 system.

#### TRACKER

TRACKER is an Internet web site that provides users with information from a data warehouse that is filled by numerous data systems used by the AF. Information in the TRACKER database is aligned and presented to fulfill a single purpose: to provide the user with information on their requisitions, with emphasis placed on the flight line, base level user. There are numerous other data systems that provide management oversight on many things, but there are none that focus on getting information about requisitions to the lowest level, to the personnel that really need it. TRACKER works by

getting copies of the transactions that are transmitted between the computer systems used to acquire, store, repair, and move assets for the AF. The data used is the actual data; it is not scrubbed or cleaned. These transactions are in military standard formats as defined in MILSTRIP, military standard transaction reporting and accounting procedures (MILSTRAP), military standard contract administration procedures (MILSCAP), and military standard transportation and movement procedures (MILSTAMP). TRACKER aligns these transactions according to key data and allows queries to be made via those keys. Additionally, TRACKER pulls useful data from other data warehouses, such as Weapon System Management Information System-Supportability, Analysis, and Visibility (WSMIS-SAV), and displays it with the various MILS-systems' transactions.

#### **646. Defense Logistics Agency automated systems**

The DLA has many interfaces that you can use to check asset availability and track the status of your requisitions. The most commonly used interfaces are covered in this lesson.

##### **Defense Logistics Agency Disposition Services**

DLADS should always be viewed as another source of supply. Materiel obtained through DLADS is free issue and in many cases, is new materiel that was in excess of an activity's requirement. If you are outside the delivery radius of the DLADS, the materiel is shipped at no charge. For customers located within the delivery radius of a DLADS, the customer is required to make arrangements to pick up the materiel. Excess materiel can be searched by FSC, NSN, or by item name.

##### **Logistics information Network**

The logistics information network (LINK) provides a single, online interface to multiple logistics information systems managed by the DOD and GSA. The LINK gives you visibility of wholesale, retail, and surplus assets (asset visibility) in the SVS and DLA inventories. LINK can be used to track the status of your requisitions. LINK also provides descriptive information about supply items and organizations. The other interface involves installing the personal computer logistics information network (PC LINK) software on your personal computer. The PC LINK has the same capabilities as WebLINK. The PC LINK is particularly suited if your connectivity to the internet is limited (such as for deployed units).

##### **Standard Automated Materiel Management System**

The Standard Automated Materiel Management System (SAMMS) is DLA's materiel management system. It allows access to the status of a wide variety of logistics data from the DLA supply centers.

With SAMMS, you can access stock availability, pricing, technical or cataloging data, requisition status, backorders, and reports of discrepancy. You access SAMMS through SAMMS Teleprocessing (SMMSTEL). Each of the DLA supply centers has a SMMSTEL application running 24 hours a day. A single LOGON ID and password will work at all sites. SMMSTEL consists of applications that can be accessed from the Defense Information Systems Network (DISN).

##### **Visual Logistics Information Processing System**

The Visual Logistics Information Processing System, (VLIPS) provides real-time access to transactional information that has passed through the Defense Automated Addressing System (DAAS). ICPs and distribution depots are continually sending status transactions to the customer and to each other, detailing the latest information on your requisitions. Since the system draws its data from transactions flowing through DAAS, information is available from all DOD sources of supply, and through GSA. If your transaction is in the system and you are determining its status, you will see your requisition in VLIPS. The information kept on these transactions can be retrieved and used in a number of ways: single transactions, unit activity, NSN/part number, project code or TCN queries, and pre-stored reports. User-requested scans are available to perform analyses of base/unit support.

### **Requirement/Execution availability logistics module**

Requirement/execution availability logistics module (REALM) supports development and maintenance of readiness spare packages (RSP), computes item requirements to support unit taskings, and provides the basis for buy and repair budgeting in support of RSPs.

### **Execution and Prioritization of Repair Support System**

Execution and Prioritization of Repair Support System (EXPRESS) supports repair execution and item distribution, and manages flow of recoverable assets in and out of depot repair.

### **Mission capable**

Collects MICAP/awaiting part (AWP) base and depot reporting data that is used in readiness assessment module (RAM) ad hoc queries.

### **Propulsion Requirement System/D087Q**

The Propulsion Requirement System (PRS)/D087Q provides the capability to compute whole-engine requirements for the maintenance community.

## **647. Supply Interface System**

Each day thousands of transactions are transmitted in and out of the Materiel Management System. For these data images to leave or be received on base, they must go through the Automated Data Reports Submission System (ADRSS). ADRSS is the system that sends and receives data on base; it consists of two systems—one for incoming messages and one for outgoing.

- ADRSS—prepares data reports for off base distribution.
- ADRSS II—processes all inbound messages.

The Supply Interface System (SIFS) provides that important link between the Materiel Management System and ADRSS. The primary role of SIFS is to dispatch incoming and outgoing data images for each supply account. SIFS also serves as a Materiel Management System interface between other automated systems such as AFEMS.

### **User files**

SIFS user files provide users with the capability to re-direct specified TRIC or program images to a file of their choice. For instance, users may want a holding area for images to be input at a later date. Users can also use the images as input data into another program such as R32, or generate a local report through report generator tools (query language processor, supply user report generator, etc.). This provides users with the flexibility to tailor SIFS to local requirements.

User files should not be used as a local storage for images. SIFS has built-in recovery/contingency procedures. Storing all images for the purpose of backup into a local user file is a duplication of effort and an abuse of system resources.

Managing SIFS user files is very important. Understand that flat files can easily be lost, destroyed, or corrupted. There are many reasons why your data can be damaged (e.g., operator error, power fluctuations, disk crash, and so forth). The element SIFS monitor should pay attention to detail in order to eliminate or significantly reduce the chance of problems.

During degraded operations, any images that have to be sent out should be given to the SIFS gang monitor. Users should generate these images using either a standard text editor or word processor. If a word processor, such as Microsoft® WORD, WordPad, or Notepad is used to generate data images, ensure the files containing the data images are in plain American Standard Code for Information Interchange (ASCII) format so there are no embedded control characters (i.e., tabs, carriage control characters, etc.).

**Supply Interface System residue**

Any time SIFS tries to dispatch an image, it looks for a corresponding entry in the SIFS control record. If it cannot find an entry, or if the entry does not provide the necessary information (entry may be corrupt), then the data image is written to residue.

SIFS residue files are designed to ensure that any inbound or outbound images that could not be identified or dispatched are cleared in a timely manner. The SIFS residue files are extremely important and should be cleared as soon as possible. For management reasons, SIFS residue images are considered DELINQUENT after 24 hours and require immediate attention. All SIFS residue images are on the SIFS end-of-day report and are automatically deleted if they are over 10 days old.

**648. Logistics, installations, and mission support-enterprise view**

The AF's transition to an expeditionary force has significantly increased the requirement to quickly integrate and portray decision-quality information across multiple domains. Logistics, installations and mission support-enterprise view (LIMS-EV) provides war fighters with intuitive business intelligence (BI) solutions tailored to meet the high operational tempo in today's expeditionary environment. LIMS-EV is a configuration of Global Combat Systems Support-Air Force (GCSS-AF) services, such as service oriented architecture, software, security, authentication and accreditation. LIMS-EV is the Air Force Logistics Installations and Mission Support (A4/7) business intelligence gateway providing a single, standardized data exploitation capability for reporting and analytics, delivering "one version of the truth" across all A4/7 business areas. The LIMS-EV goal is to achieve enterprise views and enterprise interoperability and eliminate stovepipe capabilities that drive users to multiple systems. LIMS-EV has joined supply and maintenance data to provide the AF enterprise visibility.

Users who require access to LIMS-EV begin the process by requesting access via the AF Portal ([LIMS-EV access request](#)). Once the user has entered required information, including the justification for access, they can submit the request for approval.

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**Self-Test Questions**

**After you complete these questions, you may check your answers at the end of the unit.**

**645. Air Force Materiel Command automated systems**

1. The D035E computes user stock levels for what types of items?
2. What provides stock number transaction history and an interrogation capability to display this history?

**646. Defense Logistics Agency automated systems**

1. What provides a single, online interface to multiple logistics information systems managed by the DOD and GSA?
2. What is DLA's materiel management system?



3. What system provides transactional information to VLIPS?

**647. Supply Interface System**

1. What is the *primary* role of SIFS?
2. What provide users with the capability to re-direct specified TRICs or program images to another file?
3. What is the purpose of SIFS residue files?

**648. Logistics, installations, and mission support-enterprise view**

1. What is the goal for LIMS-EV?

---

**Answers to Self-Test Questions****640**

1. Automated input technology (AIT).
2. Maintain customer function.

**641**

1. Items not pulled.
2. Select the asset management (AM) drop-down menu.
3. By SRAN and any of the following combinations: TRIC, priority, NWRM only, stock number, document number, created date/time (range), or warehouse location (range).
4. All open records, creation to delivery times, customer validation, inactive customers, items delivered, items not pulled, items not put away, items not received, items put away, and TCNs received.

**642**

1. Enterprise asset visibility (EAV).
2. One, up to twenty.

**643**

1. Materiel Management System; D035A; D035K.
2. Data source, search value, and DODAAC.
3. DODAAC
4. Primary selection criteria

**644**

1. Audit data query.
2. The more key fields entered, the narrower the search results will be.



**645**

1. ERRCD XD.
2. Recoverable Assembly Management Process System (RAMPS).

**646**

1. Logistics information network (LINK).
2. Standard Automated Materiel Management System (SAMMS).
3. Defense Automated Addressing System (DAAS).

**647**

1. To dispatch incoming and outgoing data images for each supply account.
2. SIFS user files.
3. SIFS residue files are designed to ensure any inbound or outbound images cannot be identified or dispatched.

**648**

1. Achieve enterprise views and enterprise interoperability and eliminate stovepipe capabilities that drive users to multiple systems

**Complete the unit review exercises before going to the next unit.**

### Unit Review Exercises

**Note to Student:** Consider all choices carefully, select the *best* answer to each question, and *circle* the corresponding letter. When you have completed all unit review exercises, transfer your answers to the Field-Scoring Answer Sheet.

**Do not return your answer sheet to the Air Force Career Development Academy (AFCDA).**

## **Student Notes**

# Glossary

## Terms

**accountability**—The degree of responsibility for property that exists when a record of property is maintained on a numbered stock record account that is subject to audit.

**activity code**—The method or location used by an organization to place an issue or turn-in request with the supplies and equipment manager.

**adjusted stock level**—The quantity required to be on hand for specific purposes, or a level set for the management of the requisitioning objective.

**Air Force Equipment Management System (AFEMS)**—The system used by an AF base, a major command, Air Force Materiel Command (AFMC) particularly, and headquarters, United States Air Force (HQ USAF) to manage nonexpendable equipment. AFEMS is also used for base-level management of certain expendable items such as hand tools, individual issue equipment, and war reserve materiel. AFEMS includes the areas of allowances, authorizations, accounting, physical inventories, reporting, and requirements computation.

**Air Force supplies**—Materiel and supplies made available to AF activities and/or facilities through defense military management agencies or other authorized supply sources in order to support the mission.

**Air Logistics Complex (ALC)**—An Air Force Materiel Command (AFMC) operational activity charged with worldwide responsibility for receiving, storing, and shipping materiel; organically accomplishing repair and modification tasks; contracting with industry for manufacture or repair as directed by materiel management for assigned weapon systems, equipment, or items of supply; and providing technical and logistics support for Air Force operational units, other service agencies, and foreign military customers.

**authorization**—A validated equipment requirement established for a specific item in a stated quantity for a specific organization for entry in Air Force Equipment Management System (AFEMS) records. Authorizations can be equal to or less than the stated allowance, however, they cannot exceed them.

**backorder**—An obligation, assumed and recorded by any supply echelon, to continue processing at a later date a requisitioned item that was not immediately available for supply.

**bare base system**—An Air Force concept consisting of HARVEST EAGLE, HARVEST FALCON, and fuels mobility support equipment (FMSE). It is designed to provide minimum essential living and working facilities for deploying units.

**bench check**—A workshop check for the condition, completeness, or working order of a piece of equipment.

**bench stock**—A stock of consumption-type supplies and parts established at or near points of consumption to ensure continuous and uninterrupted operations.

**budget code**—Used on the item record to determine centrally procured, investment, or stock-funded items.

**component**—An article manufactured for use in assemblies, subassemblies, end items, or end products when such an article is listed in the blueprint, drawing, technical order, or specification of the respective assembly, subassembly, end item, or product. Excludes parts of end items or assemblies having a 100 percent replacement factor during overhaul or repair (i.e., nuts, bolts, gaskets, etc.).

**condition**—The state of physical being that determines the suitability of an article to carry out the purpose for which it was designed or authorized.

**consumable items**—Expendable items such as non-nuclear munitions, tanks, racks, adapters, and pylons (TRAP), petroleum, oil, and lubricants (POL), aircraft guns and barrels, chaff, flares, photographic processing chemicals, rations, etc.

**consumption/expendable item**—An item that either is consumed in use or that loses its original identity during periods of use by incorporation into or attachment upon another assembly.

**contract/purchase order**—A negotiated agreement between the government and a manufacturer calling for the purchase of supplies and/or equipment by the government.

**controlled item**—Any item of supply where the distribution is monitored by a central authority. These normally are items that are scarce, exceptionally costly, highly technical, or peculiar to certain units or missions.

**critical level**—The quantity below which there will be insufficient stock on hand to meet issue demands. This level is normally computed on the quantity of materiel issued during the number of days in the pipeline time.

**custody receipt**—A document used by a responsible property officer to record the loan-issue of property to an individual of the unit.

**database**—A structured set of electronic data held on a disk, computer, or server, where information can be captured, queried, searched, stored, and updated.

**date of last demand (DOLD)**—Indicates the Julian date of the most recent transaction in which a recurring demand was processed. This date is stored on the item record and the master bench stock record.

**date of last inventory (DOLI)**—Indicates the Julian date of the conclusion of the most recent inventory.

**date of last transaction (DOLT)**—Indicates the Julian date of the last transaction that changed or updated an item record or a detail record and produced a transaction history.

**demand level**—A means used to identify a requirement for stocks based on the volume of past issues.

**demilitarization of materiel**—The act of destroying the offensive or defensive advantages inherent in certain types of equipment and materiel. This action includes mutilating, dumping at sea, wrapping, burning, or altering the design so as to prevent further use of such equipment and materiel for its originally intended military or lethal purpose.

**Department Of Defense Activity Address Code (DODAAC)**—Identifies the name and address of the activity to which materiel, documentation, and billing are to be mailed. The first character identifies the appropriate military service or the government ownership or sponsorship military standard requisitioning and issue procedures (MILSTRIP) service code. The next five characters identify the name and address of the specific activity, unit, or organization.

**deployment**—The movement of strategic or tactical aircraft and units to an overseas location. This includes emergency movements, scheduled rotations of aircraft from the contiguous United States (CONUS) bases to overseas bases, and related exercises.

**document identifier code (DIC)**—Used to identify a given product's status (i.e., requisition, referral action, status output, follow-up, cancellation, etc.), the system to which it pertains, and information about its intended purpose and usage.

**document number**—A 14-digit reference number that is assigned to a requisition or a release/receipt document to identify the transaction throughout the logistics system until retirement of the document is authorized in official reports of audit.

**due-in from maintenance (DIFM)**—A recoverable item flowing through maintenance from the time of removal to actual turn-in.

**duplicate shipment**—A shipment which corresponds exactly to a previous shipment.

**end item**—An entity of hardware that isn't to be installed on another piece of equipment.

**excess exception (EEX) code**—Used on an item record to identify items that aren't subject to normal excess reporting.

**expendability, recoverability, reparability, cost designator (ERRCD)**—Used to designate the expendability status, level of repair, and cost category.

**Federal supply classification (FSC)**—A systematic grouping of related items into groups and classes to facilitate the accomplishment of supply management objectives for all items in the inventory.

**freeze code**—A code loaded on an item record to stop materiel management system processing of certain transactions against that item record and associated detail records.

**functional check flag**—Used to identify those items that require functional check/calibration before issue for installation, and/or items requiring serviceability check before issue.

**HARVEST EAGLE**—The code name for air transportable housekeeping equipment and supplies—such as kitchens, tents, showers, etc.—designed to support bare base operations.

**HARVEST FALCON**—The code name for an air transportable package of hard-walled shelters, tents, and equipment designed to support Air Force Central Command (AF CENTCOM) operations.

**incorrect item**—An item received in lieu of the item requisitioned. This is an item shipped due to shipper error and not an intended interchangeable/substitute item. Also referred to as a wrong item.

**initial spares support list (ISSL)**—A list of spare parts, supplies, and components required for organizational and field maintenance of a specific quantity of end articles.

**interchangeable and substitution group (I&SG)**—A grouping of items that possess the physical and functional characteristics to provide comparable functional performance as preferred items to satisfy a given requirement. Such items are identified as interchangeable or substitutes and are arranged in descending order to the item most preferred for retention in the inventory.

**interchangeable item**—Used when two or more items possess such functional and physical characteristics as to be equivalent in performance and durability, and are capable of being exchanged one for the other without alteration of the items themselves or adjoining items except for adjustment and without selection for fit or performance.

**in-use equipment**—Equipment in the possession of the unit or the organization.

**inventory**—The comparison of items and quantities of materiel in storage and/or in-use with that reflected on the accountable records.

**item code**—A code used to indicate the relationship of an equipment item to the authorized item.

**maximum level**—That level set to limit or restrict the demand level. The lower of the maximum or demand level is the controlling level.

**MICAP**—The term used to classify items of highest priority. Mission capability (MICAP) is a unique system used to secure materiel needed to repair mission-essential equipment.

**misdirected material**—Materiel is improperly addressed and/or shipped to the wrong destination.

**mobility readiness spares package (MRSP)**—Air transportable set of repair parts required to support planned wartime or contingency operations for a specified period of time, pending resupply.

**nomenclature**—The system of identification used to differentiate items in a group; an item's identifying name or alpha and/or numeric designator that is stored on an item record and which is a short description of an item identified by a unique stock number.

**numeric parts preference code (NPPC)**—A code that specifies the reason for the unsuitable condition and which identifies limitations with respect to the future use of local assets.

**order and shipping time (O&ST)**—The average elapsed time, in days, between initiation and receipt of stock replenishment requisitions.

**organization**—A unit or activity drawing supplies directly from an Air Force base.

**organization code**—A code that identifies an organization or internal function of the logistics readiness squadron (LRS).

**organization commander (base level)**—The individual possessing supervisory control (not administrative control, such as supply squadron commander, etc.) of the function, and responsibility for success of the assigned mission.

**overage**—Item overage is when the quantity received is greater than shown on the shipping document.

**packing**—Assembly of items into a unit, intermediate, or exterior pack with necessary blocking, bracing, cushioning, weatherproofing, and reinforcing materials.

**parts preference**—A coding system used in the interchangeable and substitution group (I&SG) group program to indicate the relationship of each item within a subgroup, indicating the order to be used in supplying the items.

**physical inventory**—A record of property on hand based on a physical count.

**pre-position**—To store assets at or near the planned operating location to ensure timely support during the initial phase of a war or contingency. While mobility readiness spares packages (MRSP) are stored with a unit at their home stations, they are considered to be pre-positioned.

**product quality deficiency**—A defect of nonconforming condition which limits or prohibits the product from fulfilling its intended purpose. Included are deficiencies in design, specification, material, manufacturing, and workmanship.

**quantity unit pack (QUP)**—The number of units of issue bound or packaged in a unit pack or shipping container.

**receipt**—Acceptance of incoming shipments or local turn-in materiel.

**redistribution**—The transfer of control, utilization, or location of materiel between organizations or activities within the military services, or between the military services and other federal agencies.

**reparable**—Used to identify items that can be repaired for reuse when they become unserviceable; is preferred to, but interchangeable with the term, "repairable".

**report of survey**—An instrument for recording the circumstances concerning the loss, unserviceability, or destruction of Air Force property. It serves as, or supports, a voucher for dropping the articles from the property records on which they are listed. It also serves to determine all questions of responsibility for the absence or condition of the articles.

**requisitioning objective (RO)**—The authorized on-hand and on-order quantity.

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**routing identifier code (RIC)**—Used on requisitions and related documents, under various military systems, to determine the service, facility, and internal address or storage location for routing documentation and materiel.

**shelf life**—That period of time during which an item can remain unused in storage before being reconditioned or condemned.

**shipment exception (SEX)**—A code used on an item record to identify items that require special shipping action or to notify local management when shipping action has been effected.

**shortage**—Item shortage is when the quantity received is less than the quantity shown on the shipping document.

**signal code**—A code that indicates to the source of supply where to ship requested materiel and who to bill for funded items.

**sourcing**—The automated inquiring of other bases for lateral support to satisfy a mission capability (MICAP) requirement.

**standard reporting designator (SRD)**—Used to identify the many varieties of end items/equipment in the Air Force inventory so that data pertaining to them can be identified in various information systems.

**stock item**—An Air Force, Defense Logistics Agency (DLA), or other services' purchased item (supplies or equipment) for which a property accounting record is maintained.

**stock number**—A number identifying a part for requisitioning, storage, identifying the manufacturer, and/or origin in number.

**substitute item**—Used when two or more items possess such functional and physical characteristics as to be capable of being exchanged one for the other, only under certain conditions or particular application, and without alterations of the items themselves or of adjoining items.

**supplies**—Raw materiel, commodities, manufactured articles, component parts, assemblies, and units or equipment procured, stored, or issued for or by the Chief of Staff, United States Air Force, which haven't become real property or been installed.

**supply document**—An authorized property accounting paper which, when properly accomplished and filed for subsequent inspection/audit, must reflect and support the receipt, shipment, issue, transfer, adjustment, or any other disposition of property by a person or activity who is required by regulations to maintain a formal or an informal record of such transactions.

**support equipment (SE)**—All items and quantities of organizational equipment required for support of units not programmed for deployment by the war plans, and those items and quantities that are needed in addition to mobility equipment by combat or combat-support-type units having a programmed movement in the event of an emergency or wartime situation.

**tail number**—Identifies an aircraft. The aircraft tail number will, in all cases, consist of the second and last three numerals of the aircraft serial number (for example, serial number 7800577 = tail number 8577).

**technical order (TO)**—An Air Force publication that gives specific technical directives and information on inspection, storage, operation, modification, and maintenance of given Air Force items and equipment.

**technical order compliance (TOC)**—According to an Air Force technical order or other military department modification orders, an otherwise serviceable article must be processed by a maintenance activity for the periodic inspection, calibration, test, modification, change, or alteration prior to shipment, issue, or the preparation for initial or continued storage.



**transaction exception (TEX) code**—Used for program identification of exception conditions that require specific functions depending on the input and program involved.

**transaction identification code (TRIC)**—A code that identifies a given internal transaction within the materiel management system, and further identifies such data as to its intended purpose and usage and the operation dictated.

**type organization code**—A code loaded in organization cost center record (OCCR) to identify funding responsibility.

**unsuitable items**—Items that no longer meet the qualitative requirements of the Air Force. Normally, items in this category are “disposal” items that have been replaced by a more suitable or improved item currently available in the supply system.

**using activity**—An organization, or element of an organization, that requests or receives materiel from the logistics readiness squadron (LRS).

**war reserve materiel (WRM)**—That materiel needed to augment peacetime assets to completely support forces, missions, and activities reflected in Air Force war plans.

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## Acronyms

°C	degrees Celsius
ADRSS	Automated Data Reports Submission System
ADS	automated data system
AF	Air Force
AFEMS	Air Force Equipment Management System
AFH	Air Force handbook
AFI	Air Force instruction
AFJMAN	Air Force joint manual
AFMAN	Air Force manual
AFMC	Air Force Materiel Command
AFTO	Air Force technical order
AIT	automatic identification technology
ALC	air logistics complex
AM	Asset Management
AMC	Air Mobility Command
AO	accountable officer
ASCII	American Standard Code for Information Interchange
AWP	awaiting part
BES	bioenvironmental engineering services
BI	business intelligence
BSS	base service store
C&T	clothing and textiles
CA/CRL	custodian authorization and custody receipt listing
CAC	common access card
CAS	Combat Ammunition System
CCI	controlled cryptographic item
CDC	career development course
CDF	cargo deployment function
CE	civil engineering
CIC	controlled item code
CIIC	controlled inventory item code
CJCSI	chairman of the joint chiefs of staff instruction
CMCS	Case Management Control System

<b>COMSEC</b>	communications security
<b>CONUS</b>	contiguous United States
<b>COSIS</b>	care of supplies in storage
<b>DAAS</b>	Defense Automated Addressing System
<b>DCR</b>	document control record
<b>DD</b>	Department of Defense (used for forms and publications)
<b>DEMIL</b>	demilitarize
<b>DFAS</b>	Defense Finance and Accounting Services
<b>DIC</b>	document identification code
<b>DIFM</b>	due-in from maintenance
<b>DISN</b>	Defense Information Systems Network
<b>DLA</b>	Defense Logistics Agency
<b>DLADS</b>	Defense Logistics Agency Disposition Services
<b>DLR</b>	depot-level reparable
<b>DOD</b>	Department of Defense
<b>DODAAC</b>	Department of Defense Activity Address Code
<b>DODM</b>	Department of Defense manual
<b>DOLI</b>	date of last inventory
<b>DOLT</b>	date of last transaction
<b>DOR</b>	due-out release
<b>DOT</b>	Department of Transportation
<b>DSCP</b>	Defense Supply Center Philadelphia
<b>EAE</b>	equipment accountability element
<b>EAV</b>	enterprise asset visibility
<b>EESOH</b>	Enterprise Environmental Safety and Occupational Health
<b>EESOH-MIS</b>	Enterprise Environmental Safety and Occupational Health- Management Information System
<b>EEX</b>	excess exception
<b>EME</b>	equipment management element
<b>EOQ</b>	economic order quantity
<b>EPA</b>	Environmental Protection Agency
<b>ERRCD</b>	expendability, recoverability, reparability, cost designator
<b>ESD</b>	electronic sensitive device
<b>ES-S</b>	Enterprise Solution-Supply
<b>EXPRESS</b>	Execution and Prioritization of Repair Support System
<b>FIFO</b>	first-in/first-out

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<b>FMS</b>	foreign military sales
<b>FOB</b>	found-on-base
<b>FSC</b>	federal supply class
<b>GATES</b>	Global Air Transportation Execution System
<b>GCSS-AF</b>	Global Combat Systems Support–Air Force
<b>GSA</b>	General Services Administration
<b>HAZMAT</b>	hazardous materials
<b>HHAL</b>	health-hazard approval listing
<b>HHF</b>	health-hazard flag
<b>HRI</b>	human readable interpretation
<b>I&amp;S</b>	interchangeability and substitutability
<b>I&amp;SG</b>	interchangeable and substitution group
<b>IAW</b>	in accordance with
<b>ICBM</b>	intercontinental ballistic missile
<b>ICP</b>	inventory control point
<b>IEE</b>	individual equipment item
<b>IEX</b>	issue exception
<b>ILS-S</b>	Integrated Logistics System-Supply
<b>IM</b>	item manager
<b>IOD</b>	inventory overage document
<b>ISSL</b>	initial spares support list
<b>ISU</b>	issue
<b>ISU/DOR</b>	issue/due-out release
<b>ITV</b>	in-transit visibility
<b>IUID</b>	item unique identification
<b>JDRS</b>	Joint Discrepancy Reporting System
<b>LAN</b>	local area network
<b>LIMS-EV</b>	logistics, installations, and mission support–enterprise view
<b>LINK</b>	Logistics Information Network
<b>LRS</b>	logistics readiness squadron
<b>LRS/CC</b>	logistics readiness squadron commander
<b>MAJCOM</b>	major command
<b>MAQ</b>	maximum authorized quantity
<b>MDR</b>	materiel deficiency report
<b>MHE</b>	materiel handling equipment
<b>MICAP</b>	mission capability

<b>MILDEP</b>	military department
<b>MILSCAP</b>	military standard contract administration procedures
<b>MILSTAMP</b>	military standard transportation and movement procedures
<b>MILSTRAP</b>	military standard transaction reporting and accounting procedures
<b>MILSTRIP</b>	military standard requisitioning and issue procedures
<b>MOBAG</b>	mobility bag
<b>MRA</b>	minimum reserve authorization
<b>MRSP</b>	mobility readiness spares package
<b>MSK</b>	mission support kit
<b>NCOIC</b>	noncommissioned officer in charge
<b>NIIN</b>	national item identification number
<b>NPPC</b>	numeric parts preference code
<b>NSN</b>	national stock number
<b>NWRM</b>	nuclear weapons-related materiel
<b>O&amp;ST</b>	order and shipping time
<b>OF</b>	optional form
<b>°F</b>	degree Fahrenheit
<b>PC LINK</b>	personal computer logistics information network
<b>PMIC</b>	precious metal indicator code
<b>PMRP</b>	precious metals recovery program
<b>POC</b>	point of contact
<b>PQDR</b>	product quality deficiency report
<b>PRS</b>	Propulsion Requirement System
<b>psi</b>	pounds per square inch
<b>QDR</b>	quality deficiency report
<b>QSL</b>	quality status listing
<b>QUP</b>	quantity unit pack
<b>RAM</b>	readiness assessment module
<b>RAMPS</b>	Recoverable Assembly Management Process System
<b>RBL</b>	readiness-based leveling after RAMPS
<b>REALM</b>	Requirement/Execution Availability Logistics Module
<b>RIC</b>	routing identifier code
<b>ROD</b>	report of discrepancy
<b>ROS</b>	report of survey
<b>RSP</b>	readiness spare package
<b>SAMMS</b>	Standard Automated Materiel Management System

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<b>SAMMSTEL</b>	Standard Automated Materiel Management System Teleprocessing
<b>SAS</b>	storage aids system
<b>SBSS</b>	Standard Base Supply System
<b>SCS</b>	stock control system
<b>SDR</b>	supply discrepancy report
<b>SDS</b>	safety data sheet
<b>SE</b>	support equipment
<b>SECDEF</b>	secretary of defense
<b>SEX</b>	shipment exception code
<b>SF</b>	standard form
<b>SIFS</b>	Supply Interface System
<b>SNC</b>	shipped, not credited
<b>SPR</b>	special requisition
<b>SPRAM</b>	special purpose recoverable authorized maintenance
<b>SRAN</b>	stock record account number
<b>SRC</b>	serialized report code
<b>SRD</b>	standard reporting designator
<b>STRATCOM</b>	Strategic Communications Command
<b>SVS</b>	services
<b>TAR</b>	tracer action required
<b>TCN</b>	transportation control number
<b>TCTO</b>	time-compliance technical order
<b>TEX</b>	transaction exception
<b>TIN</b>	turn-in
<b>TO</b>	technical order
<b>TOC</b>	technical order compliance
<b>TRIC</b>	transaction identification code
<b>UC</b>	use control
<b>VLIPS</b>	Visual Logistics Information Processing System
<b>WCDO</b>	war consumables distribution objective
<b>WebFLIS</b>	Web Federal Logistics Information Service
<b>WRM</b>	war reserve materiel
<b>WSMIS-SAV</b>	Weapon System Management Information System-Supportability, Analysis, and Visibility
<b>XML</b>	extensible markup language

## **Student Notes**

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