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Air Force Can Improve Controls Over Base Retail Inventory

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Acronyms and Abbreviations

AFB	Air Force Base
AFGLSC	Air Force Global Logistics Support Center
AFMAN	Air Force Manual
ANG	Air National Guard
DIFM	Due In From Maintenance
LRS	Logistics Readiness Squadron
MAJCOM	Major Command
NSN	National Stock Number
WCF	Working Capital Fund



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
4800 MARK CENTER DRIVE
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November 23, 2011

MEMORANDUM FOR ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)
AIR FORCE DIRECTOR OF LOGISTICS, DEPUTY
CHIEF OF STAFF/LOGISTICS, INSTALLATIONS
AND MISSION SUPPORT

SUBJECT: Air Force Can Improve Controls Over Base Retail Inventory
(Report No. DODIG-2012-026)

We are providing this report for your information and use. Air Force controls over base retail inventory were generally adequate, but the Air Force can improve those controls. Specifically, our detailed testing identified deficiencies in inventory record accuracy, completion of required physical inventories, completion and retention of documentation supporting inventory adjustments, and physical storage practices. Inventory control deficiencies can limit the Air Force's ability to effectively and efficiently manage its inventory and to provide optimal support to the warfighter. We considered management comments on a draft of the report in preparing the final report.

The Air Force Deputy Director of Logistics, Deputy Chief of Staff/Logistics, Installations, and Mission Support comments on the draft of this report conformed to the requirements of DoD Directive 7650.3 and left no unresolved issues. Therefore, we do not require any additional comments.

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-8905 (DSN 664-8905).

A handwritten signature in cursive script, reading "Amy J. Frontz".

Amy J. Frontz, CPA
Principal Assistant Inspector General
for Auditing



Results in Brief: Air Force Can Improve Controls Over Base Retail Inventory

What We Did

We evaluated the controls over Air Force base retail inventory stored at sites in the contiguous United States.

What We Found

Air Force retail inventory records were generally accurate at 71 bases but personnel can make improvements. Specifically,

- system records for 44,155 of the 759,387 national stock numbers included in the inventory accuracy testing population had quantity discrepancies; and
- \$5.2 billion of base retail inventory was misstated (overstated and understated) by \$77.3 million.*

Separate testing at the Westhampton Air National Guard base identified inventory quantity discrepancies with \$11.4 million of their \$32.5 million inventory value.

These conditions occurred because personnel did not always process inventory transactions promptly and accurately, perform accurate counts, and maintain adequate control over items stored at supply points and maintenance shops. Inventory record discrepancies can limit the Air Force's ability to effectively and efficiently manage its inventory and to provide optimal support to the warfighter.

Air Force inventory controls were generally adequate, but deficiencies at 13 of 24 bases visited and analysis of records for other bases

showed that personnel can make improvements. Specifically,

- 3 bases visited and 13 additional bases did not complete required physical inventories for 39,441 item records, with inventory valued at \$117.7 million;
- 10 bases did not always properly complete and retain documentation supporting inventory adjustments; and
- 8 bases did not always maintain adequate physical storage of inventory items.

The inventory control deficiencies resulted from inadequate oversight. Inadequate inventory controls can increase the risk of theft or mismanagement of inventory assets and can negatively affect mission operations.

What We Recommend

We recommend that the Air Force Director of Logistics, Deputy Chief of Staff/Logistics, Installations and Mission Support:

- Provide all bases that store inventory details on the primary causes for inaccurate inventory records that this audit identified.
- Improve oversight over the completion of required physical inventories, the preparation and retention of documentation supporting inventory adjustments, and storage practices.

Management Comments and Our Response

The Air Force Deputy Director of Logistics, Deputy Chief of Staff/Logistics, Installations, and Mission Support comments were fully responsive to all recommendations. Please see the recommendations table on the back of this page.

* These results are based on statistical projections. See Appendix B for details on the statistical sampling methodology and analysis.

Recommendations Table

Management	Recommendations Requiring Comment	No Additional Comments Required
Air Force Director of Logistics, Deputy Chief of Staff/Logistics, Installations and Mission Support	None	A.1, A.2, B.1, B.2, and B.3

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Department of the Air Force

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Introduction

Audit Objectives

The overall objective of the audit was to evaluate the controls over Air Force Working Capital Fund (WCF) inventory. Specifically, we evaluated the physical inventory control program and related inventory sampling plans.¹ The audit focused on Air Force base retail inventory stored at sites in the contiguous United States. See Appendix A for the scope and methodology.

Air Force Inventory Management

Air Force WCF activities support the Air Force mission by providing maintenance services, weapon system spare parts, base supplies, and transportation services. Supply management activities procure and manage inventories of spare parts required to support mission requirements. Inventory is tangible personal property held for sale, in the repair process for sale, or for use in the production of goods or in the provision of services for a fee.

The Air Force reported a \$28.1 billion net inventory value on its FY 2010 WCF Financial Statements. Air Force inventory includes weapon system consumable and repairable parts, base supply items, and medical-dental supplies. Air Force inventory consists of two primary categories: wholesale inventory that Defense Logistics Agency distribution depots generally store and retail inventory that Air Force and Air National Guard (ANG) bases generally store. Bases use the Air Force Standard Base Supply System (System) to electronically maintain WCF retail inventory records.

The Air Force structure includes 11 Major Commands (MAJCOMs).² Each MAJCOM has responsibility for various Air Force units, which include wings and squadrons. The Air Force Global Logistics Support Center (AFGLSC) is an Air Force Materiel Command subordinate unit that serves as the Air Force supply chain manager. It administers the majority of Air Force WCF supply chain processes, technologies, and resources and manages materiel and its distribution. In FY 2010, AFGLSC initiated an inventory control and recovery initiative to monitor base-level retail inventory adjustment losses.

Individual bases store, manage, and control retail inventory, and the responsible units report to their respective MAJCOMs. At the base level, Logistics Readiness Squadrons (LRS) are the retail supply managers for the Air Force inventory. At most bases, Air Force personnel perform the LRS warehouse operations and the LRS commander is the accountable officer. The LRS Physical Inventory Control section is responsible for centralized execution of inventory functions, which include preparing inventory

¹ The Air Force does not use a sample plan to conduct physical inventories of its base retail inventory but instead requires all items to be inventoried at least once annually. See Appendix D for details.

² See Appendix A for a list of the MAJCOMs responsible for the sites visited during the audit.

schedules, conducting all physical inventories, managing reconciliations, performing research, and adjusting or correcting System records so that the record balance reflects the quantity of property on hand.

The System inventory record has unique identifiers. The national stock number (NSN) is a 13-digit stock number that DoD organizations use to identify items. For example, NSN 1630-01-182-6267 identifies a wheel used on an aircraft landing gear while NSN 2840-01-472-6455 identifies an augmentor duct used in an aircraft engine.

The System inventory record for an NSN can consist of multiple detailed records (called “details”) that identify the specific locations where each item with that NSN are stored. For example, a NSN with a total System record balance of eight inventory items can have multiple individual details as follows:

- five items stored in a warehouse;
- one item stored at a supply point, which is a separate storage facility located on or off base and close to the activity it is supporting;
- one item stored in a mission support kit, which is a mobile container that can be easily shipped to support deployed units or aircraft; and
- one item stored at a base maintenance shop.

See Appendix D for a detailed description of the Air Force retail inventory process, including System record details and the physical inventory process.

Inventory Management Policy

DoD Manual 4000.25-M, “Defense Logistics Management System,” provides guidance on the DoD inventory controls. The purpose of the DoD physical inventory control process is to:

- ensure that DoD organizations properly execute materiel accountability;
- ensure that DoD organizations maintain accurate property accountability records for the physical inventory in support of customer requirements and readiness and perform physical inventories, location surveys, and reconciliations;
- identify and help resolve problems in supply system work processes affecting property accountability records by performing quality control of the work processes; and
- identify repetitive processing errors and maintain accurate System records by researching and reconciling property accountability record imbalances and potential discrepancies.

Air Force Manual (AFMAN) 23-110, volume 1, part 1, “Basic Air Force Supply Procedures,” chapter 6, “Physical Inventory and Inventory Adjustments,” provides guidance on Air Force inventory controls and requires that all supply and equipment items in storage be subjected to an inventory count at least once a year. In addition to the annual physical inventory, Air Force policy requires more frequent inventories for certain item categories. For example, items coded as classified or sensitive must be inventoried semiannually. The policy also specifies that the process of taking inventory involves counting the physical property, comparing the count to the record balance, and adjusting or correcting records so that record balance and quantity of property on hand are identical. To achieve this condition it is important that counters do not have information that will make them aware of the quantity of assets on record before the physical count.

Testing Inventory Record Accuracy

The audit included tests to evaluate the accuracy of Air Force retail inventory records. The primary test involved validating the quantity balances on System inventory records by physically counting all inventory items at all storage locations. This “record-to-floor” test involved a statistical sample of NSNs. A secondary test involved recording the item information at a given storage location and validating the NSN, on-hand quantity, and physical location to the System record. This “floor-to-record” test involved a non-statistical sample of storage locations.

Air Force Internal Controls Over Inventory

Internal control weaknesses with the Air Force inventory record accuracy and inventory controls existed as defined by DoD Instruction 5010.40, “Managers’ Internal Control Program (MICP) Procedures,” July 29, 2010. Inaccurate Air Force retail inventory records existed because personnel did not give attention to detail and did not always process inventory transactions promptly and accurately, perform accurate physical inventory counts, and maintain adequate control and accountability over items stored at supply points and maintenance shops (Finding A). In addition, Air Force lacked adequate oversight to ensure that inventory personnel completed required physical inventories, prepared and retained documentation supporting inventory adjustments, and maintained proper physical storage practices (Finding B). A copy of the report will be provided to the senior official responsible for internal controls in the Air Force.

Finding A. Inventory Record Accuracy Testing Showed Discrepancies

Air Force retail inventory records were generally accurate at 71 bases but Air Force personnel can make improvements. Specifically, record-to-floor testing showed:

- System records for 44,155 of 759,387 NSNs included in the inventory accuracy testing population had quantity discrepancies, and
- \$5.2 billion of base retail inventory was misstated by an absolute value (overstatements and understatements) of \$77.3 million.³

In addition, floor-to-record testing at 20 of the 71 bases showed System records for 41 of 607 locations, containing inventory valued at \$25 million, had quantity discrepancies with an absolute value of \$0.2 million. Separate testing at Westhampton ANG base identified quantity discrepancies with \$11.4 million of their \$32.5 million inventory value. The ANG initiated corrective actions at this site during the audit.⁴ The inaccurate Air Force inventory records and misstated values existed because personnel did not give attention to detail and did not always:

- process inventory transactions promptly and accurately (15 bases visited),
- perform accurate physical inventory counts (6 bases visited), and
- maintain adequate control and accountability over items stored at supply points and maintenance shops (8 bases visited).

Inventory record discrepancies can limit the Air Force's ability to effectively and efficiently manage its inventory and to provide optimal support to the warfighter. Inaccurate inventory records can also negatively affect the accuracy of Air Force financial reports. The Air Force recently initiated efforts to improve retail inventory oversight.

Scope of Inventory Accuracy Review

Assessing inventory record accuracy involved testing at 24 bases and a combination of statistical and non-statistical samples of NSNs and storage locations. The primary sample included 20 bases statistically sampled from a population of 71 bases, each with an inventory value greater than \$15 million, and involved record-to-floor tests on a statistical sample of 4,750 NSNs. While conducting record-to-floor testing at the

³ These results are based on statistical projections. See Appendix B for details on the statistical sampling methodology and analysis.

⁴ See Appendix E for the October 2010 memorandum we issued to the ANG Director of Logistics regarding Westhampton ANG and for details on the corrective actions completed in February 2011.

20 sites, we also selected 607 locations throughout warehouses, supply points, and maintenance shops using non-statistical methods for floor-to-record testing. A secondary sample included three non-statistically selected ANG sites, each with an inventory value less than \$15 million, and involved record-to-floor tests on a statistical sample of 900 NSNs and floor-to-record tests on a non-statistical sample of 86 locations.⁵ Before selecting these 23 sample sites, we visited Westhampton ANG base and conducted record-to-floor and floor-to-record testing on a non-statistical sample of NSNs and locations.

Record-to-Floor Testing Showed Quantity Discrepancies

Record-to-floor testing results showed Air Force base retail inventory records to be generally accurate but personnel can make improvements. Specifically, record-to-floor

Record-to-floor testing showed System records for 44,155 of 759,387 NSNs, valued at \$5.2 billion, contained quantity discrepancies with an absolute value (overstatements and understatements) of \$77.3 million.

testing showed System records for 44,155 of 759,387 NSNs, valued at \$5.2 billion, contained quantity discrepancies with an absolute value (overstatements and understatements) of \$77.3 million. Physical inventories on the sample NSNs showed discrepancies between System record balances and physical count quantities. If the physical count quantity was less than the System record balance, we categorized the variance as a shortage. If the physical count quantity

exceeded the System record balance, we categorized the variance as an overage. For example, at a maintenance propulsion shop, we counted 16 items for one sample NSN, but the System record showed only 12. Base personnel could not explain why the four items, valued at \$1.1 million, were not included on the System record, but they did correct the System record balance.

Floor-to-Record Testing Showed Quantity Discrepancies

Floor-to-record testing results showed Air Force base inventory records to be generally accurate but personnel can make improvements. Specifically, the testing showed System records for 41 of 607 locations, with total inventory valued at \$25 million, contained quantity discrepancies with an absolute value of \$0.2 million. Table 1 provides a breakout of the floor-to-record quantity discrepancy overages and shortages.

Table 1. Floor-to-Record Testing Quantity Discrepancies

Discrepancy Type	Number of Discrepancies	Value of Discrepancies
Quantity - Overage	28	\$ 99,223
Quantity - Shortage	13	114,250
Total (Absolute)	41	\$213,473

⁵ The testing results at the three ANG sites were similar to the results of the primary sample. See Appendix C for details.

While conducting record-to-floor testing, we also made non-statistical selections of locations throughout the warehouses, supply points, and maintenance shops and performed floor-to-record tests by recording the item information and validating the NSN, on-hand quantity, and physical location to the System record. Discrepancies between System record balances and physical count quantities resulted in quantity overages and shortages. For example, for a large crated item at an outside storage area, the System record showed an on-hand inventory balance of zero for the item's posted NSN. Research revealed that in January 2008, site personnel had not properly processed a receiving transaction for this \$45,000 item so the System record did not properly reflect its on-hand balance and location.

Site Visit to Westhampton ANG Revealed Significant Inventory Record Discrepancies

The Westhampton ANG base had significant inventory record discrepancies.⁶ The System records for 14 of 127 NSNs tested had quantity discrepancies, including

The System records for 14 of 127 NSNs tested had discrepancies, including 4 shortages and 10 overages with a total variance of \$11.4 million.

4 shortages and 10 overages, with a total variance of \$11.4 million. The variance was substantial for one item, an air probe assembly. The System record identified Westhampton as having 87 assemblies valued at \$11.2 million. Westhampton did not have any air probe assemblies on hand and personnel told us that an

erroneous transaction had been processed several years earlier but had not been corrected. The \$11.2 million represented a substantial portion of the Westhampton ANG's \$32.5 million total inventory balance. In October 2010, we issued a memorandum to the ANG Director of Logistics summarizing our Westhampton ANG test results.

In December 2010, the ANG Director of Logistics responded that National Guard Bureau logistics personnel would assemble a team of senior materiel management experts for a site visit to Westhampton ANG base in January 2011. The team would conduct a wall-to-wall inventory, improve deficient processes, provide training, identify strengths, and document concerns of Westhampton ANG personnel. The ANG Director of Logistics intended that the team would help accurately reset the account's inventory, develop a new inventory schedule to encompass all assets, and strengthen through training potentially deficient areas.

The team of experts completed their site visit in February 2011. Their inventory count resulted in 287 item record adjustments with a gross value of \$461,084. In addition, the team helped re-establish processes by conducting hands-on training in documenting inventory adjustments, delinquent document register management, warehouse validations, and equipment management. They attributed the Westhampton deficiencies to a short-staffed work force, their lack of experience, training, and attention to detail,

⁶ AFGLC concerns regarding unusual inventory adjustment activity at Westhampton ANG prompted our site visit, which took place before our visits to the 23 sample sites.

and to neglected processes, including failure to make timely corrections for identified errors. See Appendix E for the memorandum on Westhampton ANG inventory control deficiencies and the ANG Director of Logistics' response, including a summary of corrective actions.

Reasons for Inaccurate Inventory Records

Inaccurate inventory records existed because personnel did not always process inventory transactions timely and accurately, perform accurate physical inventory counts, or maintain adequate control and accountability over items stored at supply points and maintenance shops. Overall, the discrepancies resulted from personnel not giving attention to detail when performing inventory-related tasks.

Processing Inventory Transactions Promptly and Accurately

At 15 bases, inaccurate item record balances existed because personnel did not process inventory transactions promptly or accurately. Specifically, LRS personnel:

- did not post turn-in and receipt transactions to the System promptly or posted them using the wrong NSN, and
- did not physically ship material when processing shipment transactions or did not select the correct NSN or quantity for shipment.

AFMAN 23-110, volume 2, part 2, chapter 10, "Physical Asset Management," outlines the general receiving procedures specifying that when units receive property, personnel are to open the container and compare the NSN, unit of issue,⁷ and quantity on the documents to the actual property received. Personnel are then to process the receipt transaction into the System and store the material in its applicable location. Personnel did not always comply with these requirements. For example, a physical inventory of augmentor ducts found three, valued at \$1.9 million, that personnel had not entered in the System record. In July and August 2010, personnel received these items from a different base but they did not properly record the receipts. Therefore, the System did not accurately reflect the items during our September 2010 physical inventory.

AFMAN chapter 10 specifies that when the System generates an issue transaction, warehouse personnel are to take immediate action to move the items from stock and deliver them to the customer. If they do not, a variance can occur between the System record balance and the physical on-hand quantity. For example, in August 2010, the physical inventory of a power control assembly, valued at \$431,218, identified one in location, but the System record balance was zero. Research showed that in March 2009, personnel processed a shipment in the System, but no one pulled the item from its location and shipped it. Personnel need to process inventory transactions promptly and accurately.

⁷ The unit of issue identifies the means used to buy and ultimately issue materiel to customers. Depending on the item, unit of issue may be quantity, physical measurement, container, or shape of the item.

Performing and Recording Accurate Physical Inventory Counts

Inaccurate item record balances existed at six bases because personnel did not always perform accurate physical inventory counts. AFMAN chapter 10 provides guidance on the physical inventory process. Personnel conducting the physical inventories are required to physically count all items in a given location. When the count is complete, personnel enter the results into the System and the System compares the physical count quantity and the item record balance. If a variance exists and cannot be resolved through recounts and research, personnel update the System record balance.⁸ However, if LRS personnel do not follow proper physical inventory count practices, they can erroneously adjust the System record balance. For example, a physical inventory count (in length) of radio frequency cable was 50 feet less than the System record balance. Air Force personnel showed that the variance was associated with a prior physical inventory that had not been performed properly, which resulted in an erroneous adjustment of 50 feet to the system record balance. Personnel need to perform proper physical inventory counts.

Accounting for Inventory at Supply Points and Maintenance Shops

Inaccurate item record balances existed at eight bases because LRS personnel did not always maintain adequate control and accountability over items stored at supply points and maintenance shops. AFMAN chapter 10 specifies that regardless of unit responsibility for a supply point, the LRS maintains overall accountability and must follow standard supply procedures, including an annual inventory. LRS personnel should properly perform physical inventories by counting all items for a given NSN without knowing of the System record balance beforehand. Proper inventory counts conducted under our observation revealed variances between the System record for items stored at supply points and maintenance shops and the actual on-hand quantities.

Supply Points

LRS personnel did not always ensure that unit personnel maintained adequate accountability for inventory stored at supply points. Supply points are additional warehouses located in or next to the units they support and can be located off base. The inventory items stocked in a supply point are specifically related to the needs of the supported activity. If LRS personnel do not perform proper physical inventories at supply points, record imbalances may go undetected. For example, a physical inventory of a disk drive unit at a supply point identified seven on hand but the System record showed a balance of eight. LRS personnel research showed that supply point personnel had shipped the item to another base in 2008, but the shipment was not properly processed in the System. Subsequent physical inventories did not catch the discrepancy because the LRS personnel who performed the inventories did not gain access to the secured installation to physically perform the inventory but instead trusted the supply point personnel to count the items. LRS personnel need to perform proper physical inventories at supply points and count all items for each NSN.

⁸ The System record balance automatically adjusts when a second count matches the initial count for uncontrolled items with variances less than \$1,000.

Maintenance Shops

LRS personnel did not always ensure that unit personnel maintained adequate accountability for inventory stored at maintenance shops. Maintenance shops are the various repair facilities responsible for maintaining portions or components of the base aircraft and equipment. Maintenance shop inventory generally consists of reparable items in test and repair. Maintenance personnel often send repaired items back to LRS for reissue. They might also use collocated supply points for storage.

Air Force uses the “due in from maintenance” (DIFM) process to account for inventory that maintenance shops hold for repair. This process applies to all reparable items removed from an end item, such as an aircraft or radar for repair. Maintenance personnel should establish a DIFM record (a “detail” record) in the System to track the removed item through the repair cycle. LRS personnel use the Repair Cycle Asset Management List (D23 report) to monitor the daily status and location of each DIFM detail, focusing on the time the asset is outstanding and undergoing repair. LRS personnel also conduct inventories of DIFM items.

Because LRS personnel focused on the D23 report to track DIFM items, they may not have always been aware of additional inventory items that the maintenance shops had on hand. For example, a physical inventory at an aircraft engine maintenance shop revealed

The physical inventory revealed seven intake cowlings on hand that personnel should have recorded as inventory; this created a total overage of five items, valued at \$3.4 million.

several items that were not shown on the System record. The System record included DIFM details for two intake cowlings. A physical inventory of the sample NSN revealed seven intake cowlings on hand that maintenance personnel should have recorded as inventory; this created an overage of five items, valued at \$3.4 million. Maintenance personnel explained that several years earlier, their

shop had obtained five engines from the Aircraft Maintenance and Regeneration Center; they dismantled the engines for usable parts, such as intake cowlings. However, LRS personnel had not ensured that the maintenance shop properly accounted for the items in the System and did not identify them during previous physical inventories.

Air Force personnel also inconsistently managed aircraft wheels at wheel and tire maintenance shops. Aircraft wheels are reparable inventory assets, and personnel should use the DIFM process to account for them. At four bases, wheel and tire shops had more aircraft wheels on hand than the System record showed. For example, one shop had 157 landing gear wheels on hand valued at \$1.4 million. However, the System record balance showed only 54, creating an overage of 103 wheels, valued at \$941,272. LRS personnel acknowledged inventory accuracy problems with aircraft wheels because the wheels are a high demand item. LRS personnel need to perform proper counts when they conduct physical inventories at supply points and maintenance shops for each NSN.

Impact of Inaccurate Inventory Records

Inventory record discrepancies can limit the Air Force's ability to effectively and efficiently manage its inventory and to provide optimal support to the warfighter. Inaccurate inventory records can also negatively affect the accuracy of Air Force financial reports.

Accurate inventory records improve supply chain management and benefit the warfighter. Management and other decision makers need to know how much inventory is on hand and where it is located to make effective supply decisions. Physical controls and accountability can reduce the risk of undetected theft or loss, shortages of critical items, and unnecessary purchases of items already on hand. Shortages and overages, whether caused by inaccurate records or misplaced items, can lead to delays and inefficiencies in providing inventory to the warfighter.

Inaccurate inventory records can also negatively affect the accuracy of Air Force financial reports. The retail inventory data populates a portion of the inventory amounts Air Force reports on its WCF financial reports and inaccurate data can affect the accuracy of those reports. In addition, the Air Force is working on a major information system upgrade to improve its logistics processes. The Expeditionary Combat Support System is scheduled to begin replacing existing legacy systems, including the Standard Base Supply System, in July 2012. Air Force Expeditionary Combat Support System Program Office officials told us that their teams performed assessments at several Air Force bases and also identified data integrity issues with the System inventory records. The officials stressed the importance of inventory record accuracy and that quality data is essential to their business transformation effort. The Expeditionary Combat Support System implementation team explained that the four primary data elements that need to migrate accurately for precise inventory records are the NSN, condition code, quantity, and location.

Air Force Recently Initiated Efforts to Improve Retail Inventory Oversight

In FY 2010, AFGLSC developed an inventory control and recovery program. Before this initiative, the Air Force did not have an oversight process in place above the base level to monitor base retail inventory adjustments.

The LRS accountable officer at each base is responsible for monitoring inventory adjustments monthly. In FY 2010, AFGLSC began obtaining and analyzing Air Force retail inventory-loss adjustments. AFGLSC collected inventory data and developed a reporting matrix. Specifically, its objective is to evaluate monthly retail inventory adjustment data to analyze trends, identify potential focus areas, and collaborate with the MAJCOMs to improve the inventory control process. In January 2011, AFGLSC sent out its first reporting matrix to Headquarters Air Force and the MAJCOMs on the calendar year 2010 inventory loss adjustment activity and submits the matrix quarterly.

The MAJCOMs are responsible for researching potential issues and coordinating with the units under their chain of command. We believe that the AFGLSC oversight initiative is a positive step in improving controls over Air Force retail inventory.

Recommendations, Management Comments, and Our Response

A. We recommend that Air Force Director of Logistics, Deputy Chief of Staff/Logistics, Installations, and Mission Support provide details on the causes of inaccurate inventory records that this audit identified to Logistics Readiness Squadron personnel at all Air Force and Air National Guard bases that store Air Force retail inventory. The information should be used to develop or refine base level instructions to specifically address:

- 1. prompt and accurate processing of inventory turn-in, receipt, and issue transactions; and**
- 2. conducting and processing physical inventory counts without knowing the System record balance, emphasizing on inventories of items stored at supply points and maintenance shops.**

Management Comments

The Deputy Director of Logistics, Deputy Chief of Staff/Logistics, Installations, and Mission Support concurred with the recommendations and agreed to communicate the audit results to all Air Force Logistics Readiness Squadrons at Active, Guard, and Reserve bases. In addition, the Deputy Director stated that the audit results will be discussed at the semi-annual Air Force Logistics Readiness Board. The Deputy Director also stated that the establishment of the new Logistics Readiness Squadron Quality Assurance Program along with Logistics Compliance Assessment Program and Inspector General inspections will ensure compliance with Air Force policy.

Our Response

The comments from the Deputy Director are responsive, and the planned actions meet the intent of the recommendations.

Finding B. Inventory Controls Can Be Improved

Air Force inventory controls were generally adequate but deficiencies at 13 of 24 bases visited⁹ and analysis of inventory records at other bases showed that Air Force personnel can make improvements. Specifically:

- personnel at 3 bases visited and at 13 additional bases did not complete required physical inventories for 39,441 item records, with inventory valued at \$117.7 million;
- personnel at 10 bases visited did not always properly complete and retain documentation supporting inventory adjustments; and
- personnel at 8 bases visited did not always maintain adequate physical storage of inventory items.

In addition, record-to-floor and floor-to-record tests also showed item identification, location, and general warehousing deficiencies. The control deficiencies occurred because the Air Force lacked adequate oversight to ensure that inventory personnel complied with specific policy requirements. As a result, Air Force personnel did not always provide efficient stewardship of their inventory. Inadequate inventory controls can increase the risk of theft or mismanagement of inventory assets and can negatively affect mission operations. The Air Force established an LRS Quality Assurance Program in FY 2011 to improve the controls over its inventory.

Inventory Controls Reviewed

We reviewed inventory controls during visits to 24 bases by analyzing various inventory control documentation, interviewing LRS personnel, and making general observations during record-to-floor and floor-to-record testing. The audit focused on these inventory controls: physical inventories, inventory adjustment support, and storage practices. Air Force personnel generally maintained adequate inventory controls; we did not identify any significant deficiencies. Personnel generally completed their physical inventories, completed and maintained required documentation, and maintained organized storage areas. However, improvements can be made in areas where personnel did not always comply with existing Air Force policy. See Appendix A for additional details on the scope and methodology for assessing inventory controls.

⁹ A total of 13 individual bases visited are listed in Tables 2-6 of this section as having at least one type of inventory control deficiency. Some bases are listed in more than one table if multiple types of deficiencies were identified.

Completing Required Physical Inventories On Time

Air Force personnel did not always complete required physical inventories in accordance with Air Force policy. End-of-year FY 2010 retail inventory System records for 121 Air Force bases (AFBs) and ANG bases in the contiguous United States showed that personnel at 16 bases did not complete a physical inventory for 39,441 item records, with inventory valued at \$117.7 million. These 16 bases had more than twice the average rate of overdue inventory records.¹⁰ Of the 16 bases, 14 were ANG, 3 of which were included in the site visits for this audit. Table 2 details the count, percentage, and value of total inventory records and overdue inventory records of the 16 bases.

Table 2. Bases with a Significant Number of Overdue Physical Inventories

Base Name	Records	Records Overdue for Inventory	Percent Overdue	Inventory Value (Million)	Inventory Value Overdue (Million)
Garden City ANG	8,039	6,087	76%	\$18.4	\$16.8
New Orleans ANG	6,802	4,511	66	30.0	22.5
Bradley ANG	3,869	2,234	58	11.0	9.3
Volk Field ANG	3,257	1,722	53	7.6	6.1
Mansfield ANG*	5,612	2,338	42	9.3	4.7
Holloman AFB	23,973	9,858	41	55.3	18.1
Salt Lake City ANG	6,011	2,181	36	16.1	9.4
Westhampton ANG*	3,943	1,335	34	21.5	7.2
Dannelly Field ANG	5,283	1,691	32	9.9	0.9
Fort Worth ANG*	2,573	809	31	9.1	5.4
Middletown ANG	6,219	1,955	31	6.4	2.9
Charleston ANG	3,168	757	24	8.9	1.5
Peoria ANG	5,316	909	17	11.2	3.6
Travis AFB	20,763	2,494	12	93.6	5.2
Standiford Field ANG	2,139	254	12	8.4	2.0
Nashville ANG	2,726	306	11	9.7	2.2
Total	109,693	39,441	36%	\$326.1	\$117.7

*Designates a site visited during the audit.

AFMAN chapter 10 requires a complete physical inventory of all supply inventory items in storage at least once per year, depending on the category of the item. According to Headquarters ANG Materiel Management Policy and Procedures personnel, the complete physical inventory requirement became effective in May 2008. Although the annual

¹⁰ The average rate of overdue inventory records was 5 percent; we considered a 10 percent or higher rate of overdue inventory records as significant.

requirement exists, there is no Air Force-wide oversight to ensure that LRS personnel at all bases are meeting it. The M32 report, “Monthly Base Supply Management Report,” contains information on the number of items with a date of last inventory exceeding 180 or 365 days. However, it is up to the LRS personnel at each base to monitor this report and to ensure that they complete the required inventories.

Air Force management’s lack of oversight contributed to LRS personnel not completing the required physical inventories. Specifically, no one monitored the Air Force base personnel to ensure completion. For example, Westhampton ANG personnel did not complete a physical inventory of all supplies in their custody during FY 2009 because they used a sample inventory methodology to identify and select items for physical inventory. The end-of-year FY 2010 retail inventory System records confirmed that personnel at Westhampton ANG did not complete a physical inventory of all supplies in their custody again in FY 2010. Oversight above the individual base level is necessary to ensure that personnel complete the required physical inventories in accordance with Air Force policy.

Completing and Retaining Documentation Supporting Inventory Adjustments

LRS personnel at 10 of 24 bases¹¹ did not always properly prepare or retain the following documentation to support inventory adjustments in accordance with Air Force policy:

- inventory adjustment vouchers,
- monthly “Consolidated Inventory Adjustment Document Register” (M10 report),
- monthly “Monthly Base Supply Management Report” (M32 report), and
- analyses of inventory adjustment and discrepancy trend data.

Preparing, Certifying, and Retaining Inventory Adjustment Vouchers

LRS personnel at six Air Force and ANG bases did not always properly prepare, certify, or retain inventory adjustment vouchers as documentation to support inventory adjustments. Table 3 breaks out the inventory adjustment vouchers not prepared or not certified by base.

¹¹ A total of 10 individual bases are listed in Tables 3-6 of this section as having at least one instance where LRS personnel did not properly prepare or retain inventory adjustment documentation. Some bases are listed in more than one table if multiple types of documentation were not prepared or were in error.

Table 3. Summary of Inventory Adjustment Voucher Analysis

Location	Inventory Adjustment Vouchers Not Prepared	Inventory Adjustment Vouchers Not Certified
Fort Worth ANG	X	X
Mansfield ANG	X	
Scotia ANG	X	
Tulsa ANG	X	
Westhampton ANG	X	
Whiteman AFB		X

According to AFMAN chapter 6, an inventory adjustment voucher is required to obtain relief from property accountability and to justify adjusting the inventory and accounting records to the inventory on hand.¹² The MAJCOMs are responsible for determining the specific format and data needed to document research actions (including discrepancies and corrective action) in the voucher. The policy also states that the appropriate officials must certify and approve the adjustments and are required to sign the inventory adjustment vouchers to authenticate them. DoD Manual 4000.25-M specifies that personnel are required to retain inventory adjustment vouchers for at least 2 years for audit capability purposes.

The ANG MAJCOM had not issued any specific guidance related to supporting inventory adjustments and had not formally developed an inventory adjustment voucher form for consistent use at ANG bases. ANG base personnel inconsistently prepared and retained

Personnel did not consistently prepare and retain inventory adjustment vouchers. For those inventory adjustment vouchers that personnel did prepare and retain, no one certified and approved the vouchers by signing them.

documentation supporting inventory adjustments, were unaware of the policy requiring them to document the inventory adjustments, and misinterpreted policy on supporting documentation. For example, Fort Worth ANG personnel did not consistently prepare and retain inventory adjustment vouchers. For those inventory adjustment vouchers that personnel did prepare and retain, no one certified and approved the vouchers by signing them. The inventory

adjustment voucher form that Fort Worth ANG personnel used was not an official MAJCOM form and did not contain blocks for the appropriate signatures. As a result of this audit, Fort Worth ANG issued an internal memorandum on the inventory adjustment voucher authentication policy to require the signatures of both the certifying and approving officials.

¹² This requirement applies only to controlled items or adjustments that exceed certain dollar thresholds.

Preparing and Certifying Consolidated Inventory Adjustment Document Registers (M10 Reports)

LRS personnel at seven bases did not always properly prepare, sign, or retain the “Consolidated Inventory Adjustment Document Register” (M10 report). Table 4 lists the bases that did not always prepare or properly sign the monthly M10 reports.

Table 4. Summary of Monthly M10 Report Analysis

Location	M10 Report Not Prepared	M10 Report Not Signed	M10 Report Not Properly Signed
Fort Worth ANG			X
Langley AFB			X
Mansfield ANG	X	X	
Nellis AFB		X	
Scotia ANG	X	X	
Tulsa ANG		X	
Westhampton ANG		X	X

According to AFMAN 23-110, volume 2, part 2, chapter 5, “Batch Mode Processing Procedures, Daily, Monthly, Quarterly, Semiannual, and Annual Reports and Listings,” the monthly M10 report is used to evaluate the accuracy of the inventory records and to identify areas where adjustments are being made. DoD Manual 4000.25-M requires personnel to retain the inventory adjustment reports, such as the monthly M10 reports, for at least 2 years for audit capability purposes. In addition, according to AFMAN chapter 10, appropriate officials are required to sign the monthly M10 report to certify and approve the adjustments listed. According to AFMAN 23-110, volume 2, part 2, chapter 2, “Organization and Responsibilities,” and chapter 10, the LRS Commander is the appropriate official responsible for approving and signing the monthly M10 reports.

LRS personnel did not always comply with the DoD and AFMAN policy. For example, personnel at Fort Worth ANG acknowledged confusion as to who should be signing the monthly M10 report, which led to inconsistency in its preparation. LRS personnel at other bases either did not prepare the M10 reports or the LRS Commander did not always sign them.

Retaining Monthly Base Supply Management Reports (M32 Reports)

LRS personnel at three bases did not always retain the M32 report, “Monthly Base Supply Management Report.” According to AFMAN chapter 5, LRS personnel are required to update the monthly and cumulative inventory accuracy records to provide data for analysis of the overall operational effectiveness, potential problem area detection, and statistical data through the preparation of monthly M32 report.

DoD Manual 4000.25-M requires personnel to retain inventory transaction and adjustment reports, such as the monthly M32 reports, for at least 2 years for audit capability purposes.

LRS personnel at Eglin AFB, Langley AFB, and Mansfield ANG did not always comply with these policies. For example, Eglin AFB personnel acknowledged that they only retain the prior month’s M32 report. The M32 report not only contains data on inventory adjustments but also contains information on the number of items that have a date of last inventory exceeding 180 or 365 days. Mansfield ANG personnel did not retain the M32 reports and, as shown in Table 2, they did not complete a significant number of required physical inventories during in FY 2010.

Preparing Analyses of Inventory Adjustment and Discrepancy Trend Data

LRS personnel at five bases did not always properly prepare and retain the monthly inventory and complete analyses making it difficult for them to monitor and ensure inventory record accuracy. Table 5 shows a break out of the bases where LRS personnel did not properly prepare monthly inventory and complete analyses.

Table 5. Summary of Monthly Inventory and Complete Analyses

Location	Monthly Inventory Analysis Not Prepared	Monthly Inventory Analysis Not Properly Prepared*	Complete Analysis Not Prepared
Columbus ANG		X	
Eglin AFB		X	
Fort Worth ANG	X		
Langley AFB			X
Mansfield ANG	X		X

* Personnel at Columbus ANG and Eglin AFB did not properly prepare the monthly inventory analysis as they had omitted the trend charts of 6-months’ data.

According to AFMAN chapter 10, personnel are responsible for analyzing inventory adjustment and discrepancy trend data to assist in monitoring and ensuring inventory record accuracy. Personnel are required to prepare the monthly inventory analysis of all monthly inventory adjustments and discrepancies along with trend charts showing at least 6-months’ data.¹³ They are also required to prepare a separate complete analysis of all inventory adjustments and discrepancies semiannually using the most recent 6 months’ data to identify trends and areas of current or potential high loss and recommend adding controls to prevent inventory errors and loss. DoD Manual 4000.25-M requires personnel to retain inventory transaction and adjustment reports, such as the monthly inventory and the complete analyses, for at least two years for audit capability purposes.

¹³ The monthly inventory analysis charts and the trend charts may be combined at the discretion of the LRS accountable officer.

Properly Storing Inventory Items

Personnel at eight bases did not always properly store and maintain inventory items. Specifically, unorganized storage areas included warehouse, bulk, outside, and kit storage. In addition, Westhampton ANG personnel did not properly store controlled inventory items coded as sensitive or pilferable separately from the rest of the inventory items throughout their warehouse. Table 6 lists the bases and types of storage areas where inventory was not properly stored.

Table 6. Bases With Improper Storage Practices

Location	Bulk Storage	Outside Storage	Warehouse Storage	Kit Storage	Controlled Storage
Dover AFB	X		X	X	
Eglin AFB	X			X	
Hurlburt Field				X	
Langley AFB		X			
Mansfield ANG				X	
Nellis AFB		X		X	
Offutt AFB				X	
Westhampton ANG					X

According to Air Force Joint Manual 23-210, “Joint Service Manual for Storage and Materials Handling,” personnel should make every effort to arrange and maintain stored material in the best possible manner. This includes applying proper storage practices to pinpoint an exact storage location in a simple, easily understood manner to assist in timely and accurate storage or selection of stock. In addition, AFMAN 23-110, volume 1, part 1, chapter 19, “Management of Controlled Material,” specifies that personnel must store controlled material according to the security classification, security risk, or pilferage controls of the item and ensure controlled inventory items are safeguarded in appropriate storage facilities.

Warehouse, Bulk, and Outside Storage

Personnel did not always maintain certain warehouse, bulk, and outside storage areas in an organized manner. For example, at Dover AFB several different NSNs were stored together within the same warehouse location and other items in bin locations overflowed into adjacent bin locations. In addition, bulk items stored in the warehouse were mislabeled and not in their proper location.

Record-to-floor testing at the Langley AFB outside storage area identified 16 discrepancies: 4 quantity discrepancies, 7 location discrepancies, and 5 labeling/identification discrepancies. In addition to our sample items, many of the other outside storage items were not labeled or the labels were unreadable because of

weather damage; this made identification efforts extremely difficult. This occurred because Langley AFB personnel used paper labels instead of permanent weatherproof placards on outside storage items.

Kit Storage

Personnel did not always maintain kit storage areas in an organized manner. The System record for a given NSN can include one or more kit details. These kits (large portable cabinets) include readiness spares packages, which are prepackaged sets of spares and repair parts required to support planned wartime or contingency operations for a specified period. The LRS is responsible for conducting inventories of items stored in kits. However, the unit that uses the kits for deployment is sometimes responsible for the day-to-day management of the kits. According to AFMAN 23-110, volume 1, part 1, chapter 14, "Readiness Spares and High Priority Mission Support Kits," the activity responsible for maintaining the kits must ensure that they follow proper inventory practices.

Personnel did not always arrange and maintain items they stored in kits in the best possible manner to pinpoint exact storage locations as required by Air Force Joint Manual 23-210. For example, Hurlburt Field personnel over packed and did not organize mobility readiness spares kits. Cluttered inventory on multiple shelves and bins had to be physically removed from the kits for us to locate and identify the items in our sample. In addition, item identification labels that specified part numbers and kit details were often located on the back of boxes, which affected the timeliness for properly identifying items. Personnel need to maintain organized kits to assist in timely and accurate storage, inventory, and selection of stock.

Controlled Storage

Westhampton ANG personnel stated that they did not store controlled inventory items coded as sensitive or pilferable separately from the rest of the supply inventory items in the warehouse. Westhampton ANG had a total of 117 sensitive or pilferable inventory items valued at \$1.4 million. Westhampton ANG officials identified this deficiency in 2007 and acknowledged it as a material weakness in their FY 2010 Annual Statement of Assurance. Westhampton ANG personnel also stated that the greatest risk of theft in the LRS warehouse involved pilferable items stored with other items in the warehouse and not in a separate and controlled storage facility. See Appendix E for details on Westhampton ANG.

Detailed Testing Showed Item Identification, Location, and General Warehousing Deficiencies

Record-to-floor tests of the 7,427 System records for the 4,750 sample NSNs and floor-to-record tests of 607 locations showed 462 item identification, location, and

general warehousing deficiencies.¹⁴ To determine whether Air Force personnel maintained acceptable stewardship of inventory items, we verified additional item record data. This included determining whether personnel clearly identified items, accurately located items, and maintained orderly warehouses and storage areas. Table 7 lists the number and type of discrepancies and the tests that identified them.

Table 7. Item Identification, Location, and General Warehousing Discrepancies by Test and Type

Discrepancy Type	Record-to-Floor Discrepancies	Floor-to-Record Discrepancies	Total Discrepancies
Identification	206	29	235
Location	147	23	170
General Warehousing	51	6	57
Total	404	58	462

Labeling and Identifying Items Properly

Personnel did not properly identify items with a label to show the NSN, warehouse location, and other identifying information for 235 item records. According to AFMAN chapter 10, warehouse personnel are to prepare and attach bin labels to storage racks, bins, shelves, boxes, and drawers to clearly identify items stored in a specific location. Personnel should clearly label items with a NSN or part number, a condition code, and a shelf-life code¹⁵ that markedly identifies the expiration date (if applicable).

Storing Items in Proper Warehouse Locations

Inventory items were in locations other than the assigned System record locations for 170 item records. According to AFMAN chapter 10, warehouse personnel are to assign and maintain permanent warehouse locations for each serviceable item stocked. The policy also specifies that accurate storage and control of assets is essential to inventory control and accuracy.

Improving General Warehousing Practices

Personnel did not follow proper warehousing practices for 57 item records. This included poorly organized locations, certain NSN items mixed with different NSN items, items spilling into adjacent locations, and poorly packaged items. For example, while observing the inventory of an electronic receiver, we were initially unable to identify the item because personnel had removed it from its designated packaging container. The unmarked receiver was outside on the floor of a metal box physically located on the flight

¹⁴ The 462 discrepancies include some item records that were also identified as quantity errors in Finding A. Additionally, some records had multiple discrepancies if, for example, they were both located at an incorrect location and labeled improperly.

¹⁵ Shelf life codes are assigned to items to indicate the number of months a new item may remain in storage before it requires inspection and possible reconditioning or disposal.

line. We observed other similar receivers encased in foam padding and packaged in metal or hard plastic containers. Base personnel subsequently re-packaged the part in its correct container.

Air Force Oversight of Inventory Controls

The inventory control deficiencies occurred because the Air Force lacked adequate oversight to ensure that inventory personnel complied with specific policy requirements. Adequate Air Force oversight is essential in providing for the economical and efficient stewardship of inventory. Improved oversight by LRS, MAJCOM, and AFGLSC management and personnel will help ensure that strong inventory controls are maintained.

LRS Oversight

During site visits for this audit, the Air Force had not established its policy on a LRS Quality Assurance Program. The LRS Physical Inventory Control section is responsible for centralized execution of physical inventory functions in the LRS in accordance with Air Force inventory policy requirements. On October 19, 2010, the Air Force issued Air Force Instruction 20-112, “Logistics Readiness Squadron Quality Assurance Program,” which became effective for active duty Air Force LRS 90 days after publication.¹⁶ The LRS Quality Assurance Program provides the Commander and senior leadership with an assessment of the LRS’s ability to perform essential logistics processes. It evaluates the quality of logistics processes and performs necessary functions to ensure compliance with AFMAN 23-110 along with MAJCOM and local logistics’ policies and guidance. The LRS Quality Assurance Program includes special inspections to include document control procedures and file plans, housekeeping, and inventory controls. The LRS Quality Assurance Program should enhance oversight of the inventory controls that needed improvement.

The LRS Quality Assurance Program should enhance oversight of the inventory controls that needed improvement.

An Air Force Headquarters official told us that although the LRS policy recently became effective for active duty LRS operations, the Air Force was still developing standardized checklists for the LRS Quality Assurance sections to use when conducting their evaluations. The official stated that our audit results could be beneficial to developing standardized quality assurance checklists. In addition, ANG MAJCOM personnel stated that they will be conducting a pilot test of the LRS Quality Assurance Program at 15 ANG bases in FY 2011 to prepare for the implementation at all ANG bases by October 19, 2011. If properly executed, the LRS Quality Assurance Program can improve the Air Force inventory control deficiencies that this audit identified.

¹⁶ All reserve and contracted LRS operations must be in compliance within 180 days of publication. All ANG LRS are exempt for one year after publication.

MAJCOM and AFGLSC Oversight

The MAJCOMs did not exercise adequate oversight to ensure that base personnel completed required physical inventories and prepared and retained documentation supporting inventory adjustments in accordance with Air Force policy. As discussed in Finding A, AFGLSC began analyzing Air Force retail inventory loss adjustments in 2010 and developed a reporting matrix to analyze trends and identify potential focus areas, and collaborated with the MAJCOMs to improve the inventory control process. AFGLSC personnel told us that they were not aware of any established oversight role to review the date of the last physical inventory in the System to ensure that all required physical inventories are completed on time in accordance with Air Force policy. AFGLSC personnel stated that they could easily perform the monitoring on the status of the date of the last physical inventory and include an analysis of the information as part of their quarterly reporting matrix to the MAJCOMs. Air Force-wide oversight will help ensure that personnel at Air Force and ANG bases complete the required physical inventories in accordance with Air Force policy. In addition, the MAJCOMs should exercise better oversight and coordinate with the bases under their chain of command to ensure that base personnel are aware of Air Force requirements for documenting and retaining support for inventory adjustments.

In September 2011, AFGLSC provided data showing that as a result of this audit they developed a methodology for analyzing and reporting delinquent required physical inventories. AFGLSC provided a new chart on delinquent physical inventories that they include in their quarterly inventory report matrix to Headquarters Air Force and the MAJCOMs. Specifically, the chart displayed the number and associated inventory value of the System records with a date of last inventory exceeding 365 days for each MAJCOM.

Impact of Control Program Deficiencies

Inventory control deficiencies limit the Air Force's ability to provide for efficient stewardship of its inventory, can increase the risk of theft or mismanagement of inventory assets, and can negatively affect mission operations. By not adequately preparing and retaining documentation supporting inventory adjustments, personnel are not properly obtaining relief from property accountability and proper justification for the inventory adjustment. In addition, the lack of supporting documentation limits management's ability to adequately monitor and ensure the accuracy of inventory records.

Recommendations, Management Comments, and Our Response

B. We recommend that Air Force Director of Logistics, Deputy Chief of Staff/Logistics, Installations, and Mission Support:

1. Establish oversight of all Air Force and Air National Guard locations that store inventory to require that all physical inventories be completed on time by the Logistics Readiness Squadron's Physical Inventory Control section in accordance with Air Force policy.

2. Direct all Air Force Major Commands to formally coordinate with the Air Force and Air National Guard bases under their chain of command to ensure that the bases are aware of Air Force requirements for documenting and retaining support for inventory adjustments in accordance with Air Force policy. This coordination should also ensure that the bases are using the appropriate form(s) to document inventory adjustments and are obtaining the appropriate review and approval signatures for relief of accountability.

3. Require that the checklists established as part of the Logistics Readiness Squadron's Quality Assurance Program include evaluations of the completion of required physical inventories, the preparation and retention of inventory adjustment documentation, and the organization of all storage areas and readiness spares kits.

Management Comments

The Deputy Director of Logistics, Deputy Chief of Staff/Logistics, Installations, and Mission Support concurred with our recommendations and stated that the establishment of the new Logistics Readiness Squadron Quality Assurance Program along with Logistics Compliance Assessment Program and Inspector General inspections will ensure compliance with Air Force policy. In addition, the Deputy Director agreed to review and clarify Air Force policy to ensure that the bases are aware of the appropriate forms to use for documenting inventory adjustments and are obtaining the appropriate review and approval signatures for relief of accountability. The Deputy Director also agreed to discuss the information on inventory adjustment documentation at the semi-annual Air Force Logistics Readiness Board and the Air Force Maintenance Executive Board. Additionally, the Deputy Director agreed to ensure that evaluations of the completion of required physical inventories, the preparation and retention of inventory adjustment documentation, and the organization of all storage areas and readiness spares kits are included in the Inspector General and Logistics Compliance Assessment Program Material Management checklists, which will drive corresponding changes in the Logistics Readiness Squadron Quality Assurance checklists.

Our Response

The comments from the Deputy Director are responsive, and the actions meet the intent of the recommendations.

Appendix A. Audit Scope and Methodology

We conducted this performance audit from February 2010 through September 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Audit Universe

Air Force inventory consists of two primary categories: wholesale inventory that Defense Logistics Agency distribution depots generally store and retail inventory that Air Force and ANG bases generally store. This audit focused on WCF retail inventory that the Air Force managed and stored at bases located in the contiguous United States.

The Air Force Materiel Command MAJCOM and its 754th Electronic Systems Group provided System data files containing retail inventory records. Air Force Materiel Command personnel provided three populations of retail inventory records. We used:

- March 31, 2010, data for planning purposes and to conduct our audit survey phase, including selecting a sample for the Westhampton ANG site visit;
- June 30, 2010, data to develop our statistical sampling plan (See Appendix B for details); and,
- September 30, 2010, data to evaluate the timeliness of required physical inventories as of the end of fiscal year 2010.

We filtered the three populations to remove records that the Air Force does not account for as WCF inventory. In addition, we removed a small subset of retail inventory items from the June and September populations that the Defense Logistics Agency stored and managed at Tinker AFB, Hill AFB, and Robins AFB. Appendix B describes the June 30, 2010, population and additional filtering.

Finally, we used the System data to value the records in a way that approximated how the Air Force values inventory on its WCF financial reports. This included evaluating inventory at its historical cost as well as discounting the value of some inventory if it was not in a serviceable condition.

Testing Methodology

At each of the sites where we performed testing, we followed the Air Force methodology for conducting special inventories and worked with LRS personnel to process transactions to freeze the records associated with our sampled NSNs. These transactions delayed new transactions related to our NSNs from being processed until we completed inventory testing. We obtained listings from the System of the item records and

locations and performed our record-to-floor testing by working with personnel on site to verify the balances as of the day we froze the inventory. During our record-to-floor testing, we also made non-statistical selections of additional locations to perform floor-to-record testing. For the floor-to-record testing, we recorded the NSN, location, and physical count, and compared this information to the System record. We performed at least 25 floor-to-record tests at each site.

Whenever a variance existed between the System record and what we observed, we worked with LRS personnel to perform follow-up research to determine if the difference was due to an error or just normal operations. If an error was the cause, this research also helped to classify the type of error. A common example of this was determining whether inventory record quantities were inaccurate, or whether stock was merely located in the wrong location. We focused primarily on errors related to the quantity of items held, but also recorded non-quantity errors for items that were not clearly identified and accurately located or warehouses that were not orderly maintained among other issues.

We did not inventory sample item records with an on-hand balance of zero and no assigned location, records located at another facility too far away from our sampled base to reasonably visit, or records in a DIFM status but were still installed on the aircraft or were in transit. We excluded these records from our results.

We also reviewed documentation and interviewed inventory personnel to better understand the site's inventory control program. This included reviewing the physical inventory schedule, results of past inventories, and documentation for inventory adjustments as well having inventory personnel walk us through their inventory process. Specific reports we reviewed included the monthly "Consolidated Inventory Adjustment Document Register" (M10 report), the "Monthly Base Supply Management Report" (M32 report), and the "Inventory and Complete Analyses Report." We evaluated the documentation and selective inventory controls to ensure that they complied with Air Force policy.

In addition to specific site visits, we also evaluated System records to assess the timeliness of physical inventories at 121 Air Force and ANG bases in the contiguous United States. We evaluated System inventory records to determine how often the Air Force required items to be inventoried. We then compared this requirement to the System date showing when personnel last inventoried the items to determine whether the items were overdue to be inventoried as of the end of FY 2010.

Sites Contacted and Visited

We contacted Headquarters U.S Air Force and the following nine MAJCOMs during the audit to evaluate inventory record accuracy and related inventory controls: Air Combat Command, Air Education and Training Command, Air Force Global Strike Command, Air Force Materiel Command, Air Force Reserve Command, Air Force Space Command, Air Force Special Operations Command, Air Mobility Command, and the Air National

Guard. Specifically, we visited 24 Air Force and ANG bases between July 2010 and October 2010. The table lists the bases visited, the responsible MAJCOM, and the month in 2010 that the site visits took place.

Bases Visited

Site	MAJCOM	Month Visited
Dyess AFB, TX	Air Combat Command	October
Ellsworth AFB, SD	Air Combat Command	August
Langley AFB, VA	Air Combat Command	August
Nellis AFB, NV	Air Combat Command	September
Offutt AFB, NE	Air Combat Command	August
Luke AFB, AZ	Air Education and Training Command	September
Barksdale AFB, LA	Air Force Global Strike Command	August
Minot AFB, ND	Air Force Global Strike Command	August
Whiteman AFB, MO	Air Force Global Strike Command	August
Eglin AFB, FL	Air Force Materiel Command	August
Hill AFB, UT	Air Force Materiel Command	October
Tinker AFB, OK	Air Force Materiel Command	October
Homestead AFB, FL	Air Force Reserve Command	October
Cannon AFB, NM	Air Force Special Operations Command	August
Hurlburt Field, FL	Air Force Special Operations Command	August
Peterson AFB, CO	Air Force Space Command	September
Dover AFB, DE	Air Mobility Command	October
Pope AFB, NC	Air Mobility Command	October
Westhampton ANG, NY	ANG	June - July
Columbus ANG, OH	ANG	September
Ft. Worth ANG, TX	ANG	October
Mansfield ANG, OH	ANG	September
Scotia ANG, NY	ANG	October
Tulsa ANG, OK	ANG	October

Use of Computer-Processed Data

We relied on computer-processed retail inventory data from the Standard Base Supply System. We used the data to determine the sample of inventory records for our review and to determine the accuracy of the on-hand inventory balances. We did not test the general or application controls of the System. However, we performed other tests to determine the reliability of the System data. Specifically, we determined data reliability

by physically observing inventories and performing record-to-floor tests and floor-to-record tests. In addition, we validated that the retail inventory data comprised a portion of the inventory balance on Air Force financial reports. We determined that the retail inventory records were sufficiently reliable to accomplish our audit objectives.

Use of Technical Assistance

We relied on the DoD Office of Inspector General Quantitative Methods and Analysis Division to develop a statistical sample of Air Force WCF Inventory for our record-to-floor testing and to project the results of our tests. See Appendix B for details on the statistical sampling methodology and analysis.

Prior Coverage of Air Force Retail Inventory

No prior coverage has been conducted related to the controls over Air Force WCF retail inventory during the last five years.

Appendix B. Statistical Sampling Methodology and Analysis

Population

We prepared the population of Air Force WCF retail inventory as of June 30, 2010, for sampling by excluding records that we determined should not be included, specifically:

- records for items stored at sites outside of the contiguous United States, and
- records for items stored at the four sites we had already visited during our audit survey phase: Shaw AFB, Tyndall AFB, McEntire ANG, and Westhampton ANG.

Additionally, inventory records related to the same NSNs at the same location were combined so that we could sample based upon NSN instead of by the individual inventory records. The revised population consisted of 145 sites with 1,047,764 NSNs and inventory valued at \$5,847,280,480.

Sample Plan

The DoD Office of Inspector General Quantitative Methods and Analysis Division provided technical assistance and developed a stratified sample design. The first step involved dividing the revised population of 145 sites with inventory valued at \$5,847,280,480 into two subpopulations:

- 71 sites, each with inventory values greater than \$15 million, representing 91 percent of the total inventory with a value of \$5,316,585,916.
- 74 sites, each with inventory values less than or equal to \$15 million, with a total value of \$530,694,564.

The items in both of the subpopulations were classified as either “standard control” or “additional control.” The “additional control” NSNs were coded in the System as controlled, meaning that they were designated as sensitive, pilferable, or some in other manner that required more stringent inventory control. The “standard control” NSNs were not coded in the System as controlled.

Sample from Sites with Dollar Values Over \$15M

For the first subpopulation, we used a two-stage stratified sample design. Because of the highly skewed data, and based on our professional judgment, we determined the sample size to be 20 sites. In the first stage, we developed three strata, stratified by dollar value for the sites. Table B-1 presents these stratifications.

Table B-1 Sample from Sites with Dollar Values Over \$15 Million

Stratum	\$ Value Range	Population	Total Population \$	Sample	Total Sample \$
1	>\$250M	5	\$1,705,489,012	5	\$1,705,489,012
2	>\$50M, ≤\$250M	21	\$2,396,491,404	10	\$1,254,798,588
3	>\$15M, ≤\$50M	45	\$1,214,605,500	5	\$126,142,197
	Totals	71	\$5,316,585,916	20	\$3,086,429,797

After designing the sample plan, we found that the population also included Defense Logistics Agency controlled inventory items. Because these items were under substantially different storage conditions and procedures from items controlled by the Air Force, these items were removed from the population. The adjusted population is tabulated in Table B-2.

Table B-2 Sample from Sites with Dollar Values Over \$15 Million Adjusted to Remove Items That the Defense Logistics Agency Controlled

Stratum	\$ Value Range	Population	Total Population \$	Sample	Total Sample \$
1	>\$250M	5	\$1,633,802,634	5	\$1,633,802,634
2	>\$50M, ≤\$250M	21	\$2,341,560,165	10	\$1,230,948,706
3	>\$15M, ≤\$50M	45	\$1,214,605,500	5	\$ 126,142,197
	Totals	71	\$5,189,968,299	20	\$2,990,893,537

In the second stage, we used a stratified design for each of the 20 sites, stratified by dollar value ranges for NSNs in the sites. There were 2,250 and 2,500 sample NSNs we allocated to the standard and additional control populations respectively for a total sample size of 4,750 out of a total population of 759,387 NSNs.

Sample from Sites with Dollar Values Under \$15M

For the second subpopulation, we used a one-stage stratified sample design. We selected three non-statistical sites with dollar values less than \$15M. Using professional judgment and what-if analysis, we determined a sample size of 450 NSNs from each of the two control populations, Standard and Additional Control, would be sufficient. Therefore, we allocated and distributed a total sample size of 900 NSNs among the three sites.

Table B-3 provides the distribution of these sample items.

Table B-3 Sample from Sites with Dollar Values Under \$15 Million

Site	Population	Total Population \$	Sample NSNs
Columbus ANG	6,291	\$11,925,006	395
Fort Worth ANG	2,485	\$10,191,091	270
Mansfield ANG	3,102	\$ 9,393,807	235
Totals	11,878	\$31,509,904	900

For each site, the NSNs were stratified into three strata based on the NSN dollar value ranges. The sample size for each stratum was allocated based on stratum size and the distribution of the dollar value. The sample results were projected for each site, and combined for an overall result for the three non-statistical sites.

Statistical Analysis and Interpretation

Based on sample results provided, we calculated the appropriate statistical projections at the 90 percent confidence level by combining the standard and additional controls sub-populations.

Statistical Projections for Sites with Dollar Values Over \$15M

The information in this section supports the statistical projections for our record-to-floor testing results discussed in Finding A. We are 90 percent confident that:

- the error rate for the book value not equal to the audited value is between 3.8 percent and 7.8 percent, and the number of errors (quantity discrepancies) is between 28,766 and 59,543. Because we sampled NSNs instead of records, these figures refer collectively to all records at a site for a given NSN;
- the difference when the audited value is less than the book value (quantity on hand is less than the System record balance) is between -\$46,105,515 and -\$15,578,911;
- the difference, when the audited value is greater than the book value (quantity on hand is greater than the System record balance) is between \$28,663,309 and \$64,240,621;
- the absolute value of the difference between book value and audited value is between \$51,385,989 and \$103,202,367.

Table B-4 provides details on these projections.

Table B-4 Statistical Projections for Sites with Dollar Values Over \$15M

Book Value Not Equal to Audited Value (Attribute Projection)			
	Lower Bound	Point Estimate	Upper Bound
Rate (Percent)	3.8	5.8	7.8
Number	28,766	44,155	59,543
Audited Value Less Than Book Value (Variable Projection)			
	Lower Bound	Point Estimate	Upper Bound
Dollar Value	-\$46,105,515	-\$30,842,213	-\$15,578,911
Audited Value Greater Than Book Value (Variable Projection)			
	Lower Bound	Point Estimate	Upper Bound
Dollar Value	\$28,663,309	\$46,451,965	\$64,240,621
Absolute Value of the Difference Between Audited Value and Book Value (Variable Projection)			
	Lower Bound	Point Estimate	Upper Bound
Dollar Value	\$51,385,989	\$77,294,178	\$103,202,367

Statistical Projections for Sites with Dollar Values Under \$15M

The information in this section supports the statistical projections for our record-to-floor testing results discussed in Appendix C. We are 90 percent confident that:

- the error rate for book value not equal to audited value (quantity discrepancies) is between 1.4 percent and 9.2 percent, and the number of errors is between 167 and 1,100;
- the difference, when the audited value is less than the book value (quantity on hand is less than the System record balance) is between -\$115,147 and -\$31,847;
- the difference when the audited value is greater than the book value (quantity on hand is greater than the System record balance) is between \$55,353 and \$61,021;
- the absolute value of the difference between book value and audited value is between \$89,983 and \$173,385.

Table B-5 provides details on these projections.

Table B-5 Statistical Projections for Sites with Dollar Values Under \$15M

Book Value Not Equal to Audited Value (Attribute Projection)			
	Lower Bound	Point Estimate	Upper Bound
Rate (Percent)	1.4	5.3	9.2
Number	167	634	1,100
Audited Value Less Than Book Value (Variable Projection)			
	Lower Bound	Point Estimate	Upper Bound
Dollar Value	-\$115,147	-\$73,497	-\$31,847
Audited Value Greater Than Book Value (Variable Projection)			
	Lower Bound	Point Estimate	Upper Bound
Dollar Value	\$55,353	\$58,187	\$61,021
Absolute Value of the Difference Between Audited Value and Book Value (Variable Projection)			
	Lower Bound	Point Estimate	Upper Bound
Dollar Value	\$89,983	\$131,684	\$173,385

Appendix C. Summary of Additional ANG Sites Visited

We performed inventory testing at three other ANG sites in addition to the 20 Air Force and ANG bases we selected using statistical methods. We visited these additional sites to determine whether the significant deficiencies we identified at Westhampton ANG during our audit survey phase were isolated or systemic to other ANG bases. These three sites also supplemented our statistical sample with additional coverage of Air Force sites with a total inventory value less than \$15 million. We used non-statistical methods to select Columbus ANG, Fort Worth ANG, and Mansfield ANG primarily based on the proximity of these sites to other audit sites and our audit office. However, we obtained statistical samples of inventory items at each of those sites from the DoD Office of Inspector General Quantitative Methods and Analysis Division.

Overall, we did not identify significant inventory accuracy issues similar to those encountered during our site visit to Westhampton ANG. ANG retail inventory record balances at the three sites did not always reflect the actual quantity on hand. Specifically, we performed record-to-floor testing on 900 NSNs with 1,246 associated inventory records. According to our statistical projections, an estimated 5.3 percent of the NSNs represented by our sampling had a quantity discrepancy and the absolute value (overstatements and understatements) of the discrepancies was \$131,684. The value of the inventory population at the three sites we sampled from was \$31.5 million. (See Appendix B for details on the statistical sampling methodology and projections.)

In addition, we determined that the System contained minor inaccuracies for individual storage locations. Specifically, our floor-to-record testing of 86 locations, containing inventory valued at \$600,116, revealed four records with quantity discrepancies valued at \$34,428. Table C-1 provides details on our testing results in which we compared the on-hand quantity for selective locations to the System record balance.

Table C-1. Floor-to-Record Testing Quantity Discrepancies

Discrepancy Type	Number of Discrepancies	Value of Discrepancies
Quantity - Overage	2	\$34,364
Quantity - Shortage	2	64
Total	4	\$34,428

Our combined detailed tests of 1,332 item records and locations (1,246 records and 86 locations) identified 69 non-quantity discrepancies including whether property was accurately located, clearly identified, and whether the warehouses and other storage areas were maintained in an orderly manner. Table C-2 provides a summary of the non-quantity discrepancies.

Table C-2. Summary of Non-Quantity Discrepancies

Discrepancy Type	Record-to-Floor Discrepancies	Floor-to-Record Discrepancies	Total Discrepancies
Location	44	2	46
Identification	21	0	21
General Warehousing	2	0	2
Total	67	2	69

Appendix D. Air Force Physical Inventory Process

The LRS's are the retail supply managers for the Air Force WCF inventory. The Physical Inventory Control section in each LRS is responsible for centralized execution of inventory functions, which include preparing inventory schedules, conducting all physical inventories, managing reconciliations, performing causative research and adjusting or correcting records so that the record balance and quantity of property on hand are identical.

The System inventory record for a particular NSN can consist of multiple details. Air Force policy specifies that all inventory records, regardless of detail, be subject to a complete 100-percent inventory count at least once a year. Certain inventory items are required to be physically inventoried more than once a year. The table contains the different types of inventory details, a description of the inventory type, and the physical inventory requirements. If any of the inventory items assigned to the details listed below are classified or sensitive then a semi-annual physical inventory is required unless a more frequent physical inventory requirement is already in place.

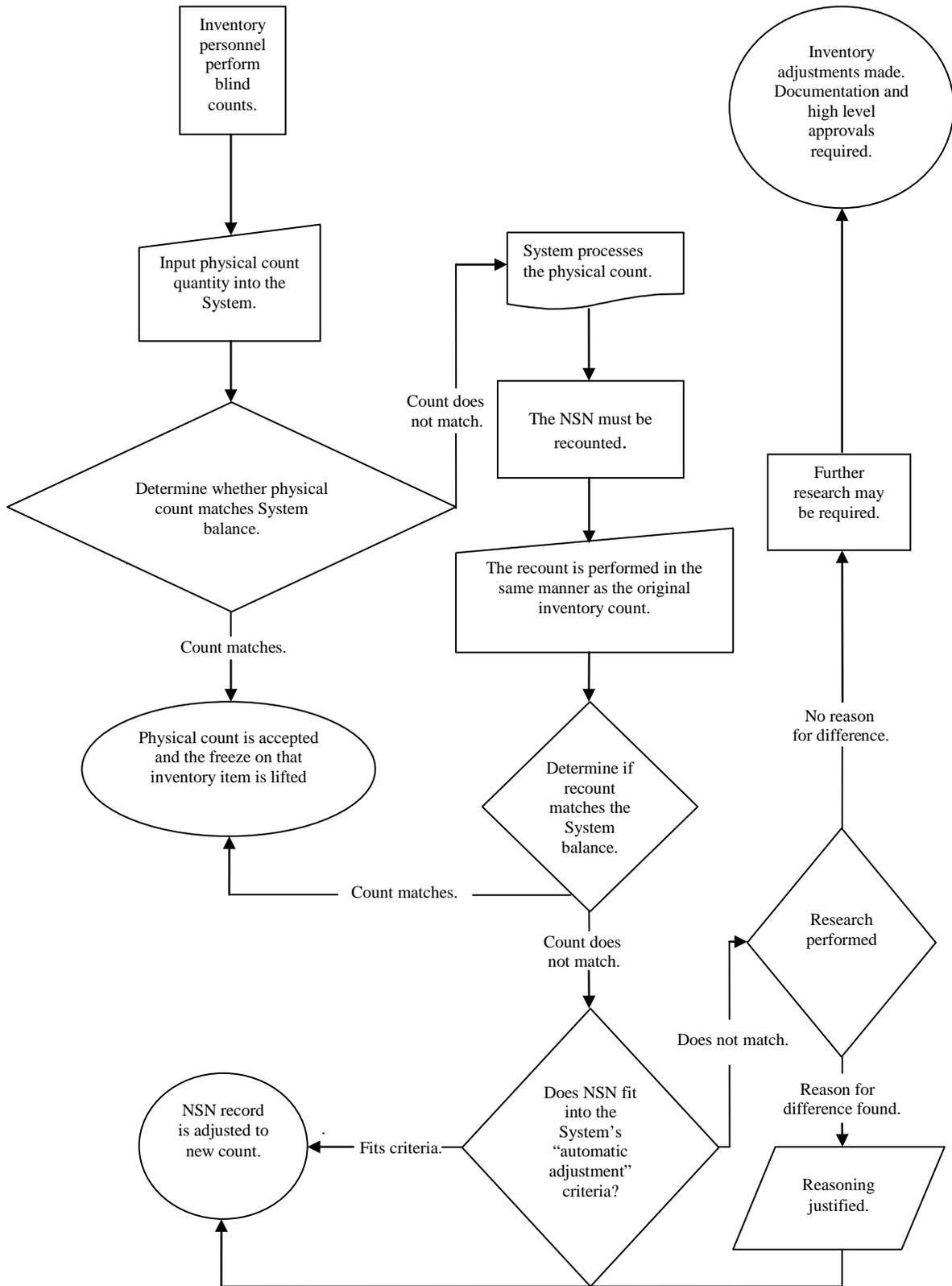
System Record Inventory Details and Physical Inventory Requirements

Detail Type	Detail Number	Inventory Requirement	Description
Item Record	101	Annual	Items stored in warehouse locations.
DIFM	203	Quarterly	A DIFM record is established in the retail supply system to track the removed item through the repair cycle and to ensure assets are repaired, evacuated, or condemned, as quickly as possible. Daily coordination with maintenance production scheduling will be maintained. The status and location of each item will be updated as soon as each applicable maintenance activity provides the new information.
Unserviceable	204	Quarterly	Unserviceable items are either repaired (made serviceable), designated not locally repairable, or condemned. Maintenance is responsible for the items until they are physically returned, either in a serviceable or unserviceable condition, to the LRS.

Supply Point	218	Annual	Additional warehouses located in or next to the activities they are supporting. They may be located on or off base and are used to provide more timely support.
Mission Support Kit	232	Annual	Stored in mobile containers so they can easily be shipped and relocated to support deployed units or aircrafts.
High Priority Mission Support Kit	234	Annual	An air-transportable package of expendable supplies and repair cycle assets designed to support a weapon system at a deployed location.
Non-Airborne Mobility Readiness Spares Package	237	Annual	Items authorized or stocked in a non-airborne mobility readiness spares package. These are items other than aircraft, such as communication-electronics, vehicles, and bare base system items.
Airborne Mobility Readiness Spares Package	239	Annual	Items authorized or stocked in a mobility readiness spares package to support planned wartime or contingency operations for a specified period of time pending resupply.
War Reserve Material Readiness Spare Package	240	Annual	Items authorized or stocked for war reserve material/in-place readiness spares package.
War Reserves Material Consumable Distribution Objective Spares Record	241	Annual	Provides visibility and accountability for those items authorized as non-kitted spares. The record contains authorized quantity, on-hand quantity, location, and other pertinent data for each item authorized in this category.

To conduct complete inventory counts of supplies throughout the year, LRS inventory personnel prepare an inventory schedule. The inventory schedule is based on the classification of inventory and the date of last inventory. The scheduled items are frozen and the “Inventory Count Listing” (R12 report) is produced. The R12 report includes the NSN, unit of issue, location, and unit price but does not include the on-hand quantity. Once the R12 report is generated, inventory personnel are ready to start the physical inventory process. Figure D illustrates the steps involved with the Air Force physical inventory count process that take place after the R12 report is generated.

Figure D. Air Force Physical Inventory Count Process



Appendix E. Memorandum on Westhampton ANG Site Visit Results and ANG Response



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-4704

October 13, 2010

MEMORANDUM FOR DIRECTOR OF LOGISTICS, U.S. AIR FORCE AIR
NATIONAL GUARD

SUBJECT: Actions Are Needed to Correct Internal Control Deficiencies at the Westhampton
Air National Guard Base (Project No. D2010-D000FR-0160.000)

We are evaluating the internal controls over the U.S. Air Force Working Capital Fund Inventory, with a specific focus on the physical inventory control program and related inventory sampling plans. During a site visit for this audit, we identified deficiencies in the physical inventory control program at Westhampton Air National Guard (ANG) Base. Specifically, we noted control deficiencies in the:

- inventory existence and completeness,
- completion of required physical inventories,
- completion and retention of documentation supporting inventory adjustments, and
- physical storage of controlled inventory items.

We believe that these control deficiencies occurred because Westhampton ANG did not adequately establish and maintain a physical inventory control program in accordance with Air Force and DOD guidance. As a result, Westhampton ANG did not always provide for the economical and efficient stewardship of DOD inventory.

An inadequate physical inventory control program can increase the risk of theft or mismanagement of inventory assets and can negatively impact mission operations. We are alerting you to these deficiencies before we complete our audit report so that you may take prompt action to correct the internal control deficiencies we identified.

Inventory Existence and Completeness Testing Showed Overages and Shortages

During our site visit, we performed tests to validate the accuracy of the Westhampton ANG inventory records. We performed inventory existence testing on 100 items by validating the accuracy of the Air Force Standard Base Supply System inventory record balance to the observed on-hand balance. We obtained the population of Westhampton ANG inventory records and used nonstatistical methods to sample a sufficient number of items that would allow us to cover a significant portion of the Westhampton ANG total inventory value.¹ While conducting the inventory existence testing, we selected items in various locations throughout the warehouse and tested the completeness of the inventory records by tracing the item information back to the

¹ The value of the 100 items sampled represented 75 percent of the Westhampton ANG total inventory value.

system record. Specifically, we performed inventory completeness testing on 27 items,² selecting stock from unique warehouse locations and validating the stock number, warehouse location, and on-hand quantity with the system record balance. We identified discrepancies in both the quantities and warehouse locations. We categorized the quantity discrepancies as overages, where the observed on-hand balance exceeded the system record balance, and shortages, where the observed on-hand balance was less than the system record balance. Overall, we identified 16 items with discrepancies totaling \$186,015 in overages and \$11,244,900 in shortages.

Existence Testing Results for 100 Items Showed 8 Discrepancies

Of the 100 items selected for existence testing, 8 had discrepancies. We noted that five items had an overage and two items had a shortage. One item had a location discrepancy where the system record identified one unique warehouse location, but we observed the inventory at two separate locations. Details on our existence testing results are provided in Table 1.

Table 1. Existence Testing Results

National Stock Number	Description	Testing Results
1615-01-383-8992	Transmission	Overage
5821-01-312-3525	Radio Receiver-Transmitter	Overage
5865-01-535-1515	Electro-Opt Sensor	Overage
6610-01-490-5168	Digital Computer	Overage
6615-01-442-1421	Gyroscope Control	Overage
1680-01-255-1334	Air Probe Assembly	Shortage
8040-00-092-2816	Paste Adhesive	Shortage
6610-01-391-9282	Electronic Flight Indication Processor	Location Discrepancy

The shortage for the Air Probe Assembly was substantial. The system record identified Westhampton ANG as having 87 assemblies on hand valued at \$11,244,800, which represented 35 percent of the \$32,526,068 total Westhampton ANG reported inventory balance. During our existence testing, we noted that Westhampton ANG did not physically maintain or store any Air Probe Assemblies in its warehouse. Westhampton ANG personnel informed us that they had erroneously reported the Air Probe Assembly balance several years earlier and never corrected the balance. We obtained a system transaction history and determined that Westhampton ANG recorded 100 probes in FY 2002, and numerous transactions had decreased the quantity to 87.

Also during our testing for inventory existence, we saw that Westhampton ANG personnel did not always input the correct quantities into the system record. After we completed the physical inventories, we obtained system transaction histories to ensure that Westhampton ANG personnel accurately input the observed on-hand quantities into the system. We noted that

² We used nonstatistical methods to a minimum of 25 items per site for inventory completeness testing.

inventory personnel incorrectly input the on-hand quantity for six items, which resulted in an erroneous update to the system record balance that required corrective action.

Completeness Testing Results for 27 Items Showed 8 Discrepancies

Of the 27 items selected for completeness testing, 8 had discrepancies. We noted five items had an overage, and of these, two items also had a warehouse location discrepancy. Two items had a shortage, and another had a warehouse location discrepancy. Details on our completeness testing are provided in Table 2.

Table 2. Inventory Completeness Results

National Stock Number	Description	Testing Results
5331-01-014-4296	Packing	Shortage
5340-01-177-5161	Loop Clamp	Shortage
6515-00-137-6345	Disposable Ear Plug	Overage
6760-01-491-2211	Photo Equipment Case	Overage
9150-00-782-2627	Lube Oil	Overage
6260-01-074-4229	Green Chemlite	Overage & Location Discrepancy
7530-01-335-2623	Xerox White Paper	Overage & Location Discrepancy
5831-00-061-1577	Intercommunication Set Control Box	Location Discrepancy

Westhampton ANG Did Not Perform Complete Physical Inventories, Which Could Persist in Future Years

Physical Inventories for FY 2009 Were Incomplete

Westhampton ANG personnel did not complete a physical inventory of all supply materials in their custody and thus did not perform adequate stewardship of supply assets in FY 2009. Air Force Manual 23-110 (AFMAN 23-110), Volume 1, Part 1, Chapter 6, "Physical Inventory and Inventory Adjustments," and Volume 2, Part 2, Chapter 10, "Physical Asset Management," requires the complete physical inventory of all items in storage at least once per year. Headquarters, ANG Materiel Management Policy and Procedures personnel told us that this requirement had been in place since May 2008. During our site visit, Westhampton ANG personnel stated that they were using a sample inventory methodology to identify and select items for physical inventory during FY 2009 and that they were unaware of the requirement to conduct a physical inventory of all items in storage at least once per year. In response to our request for a copy of the FY 2009 warehouse inventory validation schedule, Westhampton ANG personnel also stated that they were adopting a new process for scheduling the required inventory validation for FY 2010.

Westhampton ANG personnel stated that in September 2009, they identified more than 3,600 items that were overdue for a physical inventory, but realized that they would not be able to perform inventories for these items because of staffing limitations. The standard physical inventory process for an item involves:

- processing a transaction to freeze the system record balance,
- conducting a physical inventory count,
- researching any variances between the physical count and the system record balance,
- inputting the results to update the system record balance, and
- inputting the date of last inventory upon completion of the physical inventory.

Instead of following their standard process, Westhampton ANG personnel attempted to develop a batch file that would input a count quantity equal to the system record on-hand balance when the original inventory transactions were processed. Had the batch process worked correctly, the input would update the system record on-hand balance and the date of last inventory field even though Westhampton ANG did not actually conduct the physical inventories. However, the batch process contained flaws and resulted in erroneous updates to system record quantity on-hand balances. For example, the flawed process resulted in a \$100 million fluctuation in the inventory balance in September 2009. During our FY 2010 site visit, Westhampton ANG personnel told us that they had recently identified more than 30 items with system record balances that were incorrect as a result of the erroneously-processed batch of transactions in September 2009.

Westhampton ANG Is Unlikely to Complete Future Physical Inventories

We are concerned about Westhampton ANG's ability to maintain an up-to-date inventory schedule and complete a physical inventory of all its items in storage at least once per year. At the time of our site visit, Westhampton ANG personnel told us that they were approximately 6 months behind on the FY 2010 schedule for completing physical inventories. Westhampton ANG officials stated that insufficient staffing made it difficult to complete the inventories in a timely manner.

Westhampton ANG Did Not Complete and Retain Documentation Supporting Inventory Adjustments

During our site visit, we determined that Westhampton ANG personnel did not complete and retain documentation supporting inventory adjustments in accordance with Air Force policy. According to AFMAN 23-110, Volume 1, Part 1, Chapter 6, an inventory adjustment voucher is required to obtain relief from property accountability and provide justification for adjusting the inventory and accounting records to the inventory on hand.³ Westhampton ANG inventory personnel informed us that they do not use a voucher to process an inventory adjustment and that their supporting documentation for an inventory adjustment consists of research results on the cause of the adjustment, including a copy of the system transaction history showing the

³ This requirement involves controlled items or adjustments that exceed certain dollar thresholds.

inventory adjustment. By not using an inventory adjustment voucher, Westhampton ANG personnel failed to obtain relief from property accountability and proper justification for the inventory adjustment.

According to AFMAN 23-110, Volume 2, Part 2, Chapter 10, inventory adjustments must be certified and approved by the appropriate officials. Specifically, the appropriate officials are required to sign the monthly Consolidated Inventory Adjustment Document Register (M10 Report) to certify and approve the adjustments listed. For Westhampton ANG, the Logistics Readiness Squadron Commander is the appropriate official responsible for signing the M10 Reports.

We requested copies of signed M10 Reports from Westhampton ANG for August 2009 through June 2010. Westhampton ANG provided three M10 reports that had a signature other than that of the Squadron Commander and six unsigned M10 reports. In addition, Westhampton ANG did not provide a copy of the M10 for one month, and the system did not generate an M10 report for one month because there were no inventory adjustments. By not completing and documenting inventory adjustments on the monthly M10 reports, Westhampton ANG did not ensure that all inventory adjustments were properly certified and approved by appropriate officials and that a signed copy of the M10 report was properly maintained for audit trail purposes. Details on our review of the 11 requested M10 reports are provided in Table 3.

Table 3. Review of 11 Requested M10 Reports

Month	Approval Signature		M10 Report	
	Inappropriate	Unsigned	Not Required	Not Provided
August 2009		X		
September 2009		X		
October 2009	X			
November 2009		X		
December 2009		X		
January 2010			X	
February 2010		X		
March 2010	X			
April 2010	X			
May 2010		X		
June 2010				X
Total	3	6	1	1

Controlled Inventory Items Were Not Properly Stored

During our site visit, Westhampton ANG personnel informed us that controlled inventory items coded as sensitive or pilferable were not properly stored separately from the rest of the supply inventory items in the warehouse. Westhampton ANG officials had identified this deficiency in 2007 and acknowledged it as a material weakness in their FY 2010 Annual Statement of Assurance.

Westhampton ANG personnel also stated that the greatest risk of theft within the Logistics Readiness Squadron warehouse involves pilferable items that are stored with other items in the warehouse and not in a separate and controlled storage facility. Our analysis identified that Westhampton ANG had a total of 117 sensitive or pilferable inventory items valued at \$1,409,245. Because of the numerous control deficiencies we identified during our audit and the risks associated with sensitive and pilferable items, we believe that it is important for Westhampton ANG officials to address these deficiencies as soon as possible.

Suggested Corrective Actions

We suggest that the Commander, Westhampton ANG, conduct a complete assessment of the Westhampton ANG physical inventory control program and ensure compliance with Air Force and DOD guidance. At a minimum, the assessment should address the deficiencies we described in this memorandum, including the:

- accuracy of supply inventory records,
- completion of required physical inventories,
- completion and retention of documentation supporting inventory adjustments, and
- physical storage of controlled inventory items.

We are performing this audit in accordance with generally accepted government auditing standards and are providing you with these interim results so that you may start taking appropriate corrective actions. We anticipate issuing a draft and final report on the overall audit results, which will include the issues identified in this memorandum.

We would like to give you credit in both the draft and final reports for any actions taken in response to this memorandum. Therefore, we request that you apprise us of all corrective actions you plan to take or have taken to address the suggested corrective actions by November 12, 2010.

If you have any questions, please contact me at [REDACTED]


Mark Starinsky
Program Director
Defense Business Operations

Cc: Deputy Director of Logistics, U.S. Air Force Headquarters, DCS/Logistics, Installation & Mission Support
Commander, 106th Logistics Readiness Squadron, Westhampton Air National Guard



NATIONAL GUARD BUREAU
3500 FETCHET AVENUE
JOINT BASE ANDREWS MD 20762-5157

10 December 2010

MEMORANDUM FOR DOD/IG

FROM: NGB/A4

SUBJECT: Proposed Corrective Actions for Internal Control Deficiencies at the
Westhampton Air National Guard Base (Project No. D2010-D000FR-0160.000)

In response to your memorandum dated October 13, 2010, "Actions Are Needed to Correct Internal Control Deficiencies at the Westhampton Air National Guard Base (Project No. D2010-D000FR-0160.000)", I have directed NGB/A4R to assemble a team of senior subject matter experts led by a senior A4R representative. They will travel to Westhampton ANGB in January 2011 to address the issues identified in the DOD/IG report. The January 2011 time frame will ensure the unit's readiness spares package is included in the inventory, and to the maximum extent possible, all of the unit's personnel are present to make the corrective actions and receive the personalized targeted training.

The purpose of the site visit is to conduct a wall-to-wall inventory, improve deficient processes, provide training, identify strengths, and document the unit's concerns. The plan is to accurately reset the account's inventory, help develop a new inventory schedule that will encompass all assets rather than just a sample of the assets, and strengthen through training those areas within the unit that may be deficient. These actions will provide the unit with a starting point to accurately maintain the supply account and conduct follow on training.

If you have any questions, please contact [REDACTED]

or [REDACTED]


HARRY A. TRUHN, Colonel, USAF
Director, Logistics



NATIONAL GUARD BUREAU
3501 FETCHET AVENUE
JOINT BASE ANDREWS MD 20762-5157

21 March 2011

MEMORANDUM FOR DOD/IG

FROM: NGB/A4

SUBJECT: Corrective Actions/Way Ahead for Internal Control Deficiencies at the Westhampton Air National Guard Base (Project No. D2010-D000FR-0160.000)

NGB/A4 sent a team of Subject Matter Materiel Management Experts to the 106th Logistics Readiness Squadron (LRS) 24 January through 7 February 2011 to perform a wall-to-wall inventory, improve deficient processes, provide training, identify strengths, and document unit concerns. During the visit, personnel from the 106 LRS were very professional, courteous and eager to learn and correct all findings reported by the Department of Defense Inspector General (DOD/IG).

Per the DOD/IG memorandum of 13 October 2010, Subject: Actions are needed to correct internal control deficiencies at the Westhampton Air National Guard Base (Project No. D2010-D000FR-0160.000), "inventory control deficiencies occurred because Westhampton did not adequately establish and maintain a physical inventory control program." During the NGB team's visit, a wall-to-wall inventory ensued, including a validation of Repairables, Serviceable/Unserviceable, assets against the D23 Repair Cycle Asset Management Report. A total of 287 item record/detail adjustments resulted in a gross correction of \$461,084 (\$129,727 in gains and \$331,357 in losses). These corrections are a direct result of central storage overlooking basic warehousing principles such as conducting regular warehouse validations and failure to make timely corrections when stock record errors were identified. In addition to the wall-to-wall inventory, pilferable and sensitive materials were in the process of moving to a vault, ensuring properly secured assets segregated from the other stock and mitigating future losses.

Processes were re-established and hands-on training conducted to ensure continuity in compliance; such as retention of documentation supporting inventory adjustments (specifically the M10 Reports and inventory adjustment vouchers), management of Delinquent Document Register, Delinquent Shipment Listing, warehouse validations, equipment management, etc. While a great deal of training was accomplished during the NGB/A4's team visit, a number of training opportunities still exist for 106 RQW LRS personnel (Ref: Tab 2).

A number of factors significantly contributing to the deficiencies discovered:

- I. Full-time Manpower for Materiel Management is 51% of authorized full-time manning levels.
- II. Lack of experience and training of the full-time staff: 6 personnel have an average of 6 months experience; and another 7 have an average of 2.3 years experience.
 - a. For example, 25 different personnel have held the WG-6 Material Handlers position in the warehouse only to vacate the position as soon as a higher paying position was found.
 - b. The remaining Materiel Management personnel attempting to accomplish the added workload oftentimes sacrifice their own compliance and processes, resulting in repeat inspection write-ups.

- III. Several programs lacked management oversight that could not be explained. Limited follow-up visits by SMEs, funded by the 106 RQW, with a focus on training opportunities will cement the training given by the NGB/A4 team.
- IV. Attention to detail by all Materiel Management personnel, including Receiving and Distribution personnel, is needed.
- V. Neglected processes – such as management of the R59 Delinquent Document Register, R40 Delinquent Shipment Listing and the MILSTAMP Tracer Reconciliation Listing - negatively affected stock management and accuracy.

Although inventory losses and gains are mostly attributed to the understaffed and inexperienced personnel assigned to the 106 LRS, the LRS commander along with the superintendents within Material Management must develop techniques to ensure compliance, such as instituting the new LRS/QA function. Additionally, full-time Manpower authorizations versus funded employment authorizations must be reviewed, because current staffing of full-time personnel does not allow for adequate compliance of regulatory policies and directives.

Deficient processes, training and inventory discrepancies noted during the DOD/IG audit have been resolved with the exception of the Individual Protective Equipment/Mobility Element. Other inventory discrepancies found in the Individual Equipment Element (IEE) but not identified in the DOD/IG report are still pending resolution. The IEE remained mostly frozen pending submission of Report of Surveys and an action plan to manage these items from the 106 LRS/CC (Ref: Tab 1).

While the NGB/A4 team visit produced positive, tangible results, the 106 LRS must continue to strengthen item accountability. The NGB/A4 team gave the 106 LRS a starting point from which they can accurately maintain the supply account and conduct follow-on training. Continued attention to these issues will enhance overall operations at the 106 RQW.

If you have any questions, please contact [REDACTED]

or [REDACTED]


DAVID B. MANSFIELD, Colonel, USAF
Acting Director, Logistics

cc: 106 RQW/CC

Department of the Air Force Comments



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, DC

OCT 12 2011

MEMORANDUM FOR DEPARTMENT OF DEFENSE OFFICE OF INSPECTOR GENERAL
ATTN: [REDACTED]

FROM: AF/A4L
1030 Air Force Pentagon Room 4C1065
Washington, DC 20330

SUBJECT: DoDIG Project D2010-D000FR-0160.000 Draft Report

Below are specific answers to the recommendations in sections A1, A2, B1, B2, and B3 of subject report. Overall we concur with the recommendations and will communicate the audit results to all AF Logistics Readiness Squadrons (LRSs) at Active/Guard/Reserve bases. After review of the recommendations and our policy, we believe AFMAN 23-110 (specific references below) addresses the problem areas identified by this audit. If current policy had been followed then these problems would not have existed. Recent changes in the Materiel Management career field (i.e. returning to a fully operational inventory section) along with the stand up of the LRS Quality Assurance (QA) program will assist in mitigating these problems.

Below are responses to each item identified in the audit report (A1, A2, B1, B2, and B3):

DoDIG recommendation A - We recommend that Air Force Director of Logistics, Deputy Chief of Staff/Logistics, Installations, and Mission Support provide details on the causes of inaccurate inventory records that this audit identified to Logistics Readiness Squadron personnel at all Air Force and Air National Guard bases that store Air Force retail inventory. The information should be used to develop or refine base level instructions to specifically address:

A1. Timely and accurate processing of inventory turn-in, receipt, and issue transactions.

A4L response: Concur. AF/A4L will provide details on the causes of inaccurate inventory records identified in this audit to Logistics Readiness Squadron and Wing level maintenance personnel at all Air Force and Air National Guard bases that store Air Force retail inventory. Additionally, this information will be discussed at the semi-annual Air Force Logistics Readiness Board and the Air Force Maintenance Executive Board (functional governance bodies made up of senior MAJCOM logisticians and maintainers). (ECD: 30 Jan 2012)

A2. Conducting and processing physical inventory counts without knowing the System record balance, emphasizing on inventories of items stored at supply points and maintenance shops.

A4L response: Concur with comment. Current policy listed in AFMAN 23-110, Vol 2, Pt 2, Ch 10, Attch 10C specifically addresses the conducting and processing of physical inventories for all assets loaded in the Standard Base Supply System (SBSS), on SBSS accountable supply records. Paragraph 10C12.4 specifically addresses Supply Points. The count cards and listings produced to conduct these inventories do not have the SBSS record balance on them so the inventory personnel conducting the inventory do not know the system balances prior to inputting the quantity inventoried. As for inventory requirements for items stored in Maintenance shops...these items are not loaded in the SBSS and therefore not covered under the procedures listed above. LRS does not own these assets and does not control where they are kept or when they get turned in to the LRS to be added to the accountable record. Maintenance accountability requirements are addressed in AFI 21-103 paragraphs 9.9.2.1, 9.9.4, and 9.9.4.1-9.9.4.2. Bottomline: We believe there are no policy shortfalls. If the guidance contained in AFMAN 23-110 and AFI 21-103 were followed this out of balance would not have occurred. This is a compliance issue that needs to be addressed through supervisor/command channels. The establishment of the new LRS QA program along with Logistics Compliance Assessment Program (LCAP) and Inspector General (IG) inspections will ensure compliance with AF policy. (ECD 30 Mar 12)

DoDIG recommendation B - We recommend that Air Force Director of Logistics, Deputy Chief of Staff/Logistics, Installations, and Mission Support:

B1. Establish oversight of all Air Force and Air National Guard locations that store inventory to require that all physical inventories be completed timely by the Logistics Readiness Squadron's Physical Inventory Control section in accordance with Air Force policy.

A4L response: Concur. AFMAN 23-110, Vol 2, Pt 2, Ch 10, para 10.3.5.2 outlines the timeliness, frequency, and scheduling of inventories. The establishment of the new LRS QA program along with Logistics Compliance Assessment Program (LCAP) and Inspector General (IG) inspections will ensure all AF and ANG locations are in compliance with AF policy. (ECD: 30 Mar 12)

B2. Direct all Air Force Major Commands to formally coordinate with the Air Force and Air National Guard bases under their chain of command to ensure that the bases are aware of Air Force requirements for documenting and retaining support for inventory adjustments in accordance with Air Force policy. This coordination should also ensure that the bases are using the appropriate form(s) to document inventory adjustments and are obtaining the appropriate review and approval signatures for relief of accountability.

A4L response: Concur with comment. AFMAN 23-110, Vol 2, Pt 2, Ch 10, para 10.3.5.5 and 10.3.5.6 lay out the requirement for coordination and signature approval for adjustments. There is also the requirement for the accountable officer (LRS Commander) to review the Consolidated Inventory Adjustment Document Register (M10/NGV836) to certify and approve the adjustments listed each month. These signed registers are filed in Document Control. At the MAJCOM level, IG and LCAP teams conduct inspections to ensure compliance with applicable publications. There is no need for MAJCOMs to "formally coordinate with the Air Force and Air National Guard bases under their chain of command to ensure that the bases are aware of Air Force requirements for documenting and retaining support for inventory adjustments in accordance with Air Force policy when inspection teams already conduct these types of inspections. A4L will review and clarify (if necessary) current policy to ensure the bases know/use the appropriate form(s) to document inventory adjustments and are obtaining the appropriate review and approval signatures for relief of accountability. Additionally, this information will be discussed at the semi-annual Air Force Logistics Readiness Board and the Air Force Maintenance Executive Board. (ECD: 30 Mar 12).

B3. Require that the checklists established as part of the Logistics Readiness Squadron's Quality Assurance program include evaluations of the completion of required physical inventories, the preparation and retention of inventory adjustment documentation, and the organization of all storage areas and readiness spares kits.

A4L response: Concur. A4L will ensure the above items are included in IG and LCAP Materiel Management checklists (foundation for the LRS QA program checklists) which will drive corresponding changes in the LRS QA program checklists. (ECD: 30 Mar 12)

My POCs are [REDACTED] and [REDACTED]



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