

Inspector General

United States
Department of Defense



Deferred Maintenance on
the Air Force C-130 Aircraft

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Acronyms and Abbreviations

AETC	Air Education and Training Command
AFMC	Air Force Materiel Command
AFRC	Air Force Reserve Command
AFTO	Air Force Technical Order
AIRCAT	Automated Inspection Repair and Corrosion Aircraft Tracking System
ALC	Air Logistics Center
AMC	Air Mobility Command
ANG	Air National Guard
FMR	Financial Management Regulation
OMB	Office of Management and Budget
PDM	Programmed Depot Maintenance
PM/CCAT	Program Management Configuration Control Aircraft Tracking System
RSI	Required Supplementary Information
SAF/FM	Assistant Secretary of the Air Force for Financial Management
SFFAS	Statement of Federal Financial Accounting Standards



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
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ARLINGTON, VIRGINIA 22202-4704

September 25, 2009

MEMORANDUM FOR ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)


SUBJECT: Deferred Maintenance on the Air Force C-130 Aircraft
(Report No. D-2009-112)

We are providing this report for review and comment. We considered comments from the Office of Resource Integration, Deputy Chief of Staff for Logistics, Installations and Mission Support when preparing the final report. We performed this audit pursuant to the requirements in Public Law 100-181, the FY 2008 National Defense Authorization, Section 842.

DOD Directive 7650.3 requires that all recommendations be resolved promptly. The comments on Recommendation B.2 were responsive, and no further comments are required. The comments on Recommendations A.1.a, A.1.d, A.1.e and B.1 were responsive. The comments on Recommendations A.1.b and A.1.c were not responsive. We request that Air Force Materiel Command provide additional information on Recommendations A.1.a, A.1.d and comments on Recommendations A.1.b, A.1.c, and A.1.e by October 25, 2009. We request the Office of Resource Integration provide additional information on Recommendation B.1 by October 25, 2009.

Please provide comments that confirm to the requirements of DOD Directive 7650.3. If possible, send management comments in electronic format (Adobe Acrobat file only) to auidbo@dodig.mil. Copies of management comments must have the actual signature of the authorizing official for your organization. We cannot accept the / Signed / symbol in place of the actual signature. If you arrange to send classified comments electronically, you must send over the SECRET Internet Protocol Router Network (SIPRNET).

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-8901 (DSN 664-8901).


Mary L. Ugone
Deputy Inspector General
for Auditing



Results in Brief: Deferred Maintenance on the Air Force C-130 Aircraft

What We Did

We determined the extent and causes of deferred maintenance on the U.S. Air Force C-130 aircraft used in support of operations in Southwest Asia. Specifically, we assessed the Air Force Materiel Command (AFMC) procedures for reporting deferred maintenance on the C-130 aircraft. We focused on maintenance deferred from October 1, 2004, through August 1, 2008.

What We Found

AFMC did not have an adequate internal control process for managing deferred C-130 aircraft Programmed Depot Maintenance (PDM). Specifically, AFMC did not ensure that:

- PDM was performed by the scheduled date,
- C-130 aircraft obtained and retained the required PDM extensions, and
- a reliable process was in place for reviewing PDM extensions.

In addition, partially deferred maintenance was not accurately recorded and reported. AFMC process for deferring PDM was inadequate because AFMC either did not have procedures or did not follow established procedures to comply with Federal and DOD regulations and Air Force instructions, including Air Force Technical Orders 00-25-107 and 00-25-4. As a result, the Air Force may have flown 36 C-130 aircraft that were considered unsafe and 11 of these may have flown over the course of 365 days or more.

For FYs 2005-2007, the Air Force reported approximately \$135.45 million in C-130 aircraft deferred maintenance. However, that amount was unreliable because the Air Force did not validate its maintenance requirements at the end of the fiscal year. Thus, the Air Force did not comply with established guidance. As a result, the Air Force inaccurately reported deferred maintenance for the C-130 aircraft in the Required Supplementary Information of the FYs 2005-2007 financial statements.

Implementing our recommendations would help resolve the internal control weaknesses in the AFMC process for deferring C-130 aircraft PDM and in accurately reporting the amount of deferred maintenance in the financial statements.

What We Recommend

AFMC should:

- develop and implement procedures to improve the C-130 aircraft PDM scheduling process;
- determine why it did not obtain, review, and retain PDM extension documents;
- identify any C-130 aircraft flying without the required PDM extension and complete the necessary action to resolve; and
- provide proper oversight for partially deferred maintenance and report partially deferred maintenance.

The Department of the Air Force should:

- report updated deferred maintenance requirement changes identified by the Major Commands; and
- verify the accuracy and validity of deferred maintenance amounts reported in the Required Supplementary Information in the financial statements.

Management Comments and Our Response

The Deputy Director of Resource Integration, Deputy Chief of Staff for Logistics, Installations and Mission Support agreed with all of the recommendations. The Deputy Director's proposed actions were responsive for five recommendations and nonresponsive for two recommendations. However, we request additional information or comments on six recommendations by October 25, 2009. Please see recommendations table on the back of this page.

Recommendations Table

Management	Recommendations Requiring Comment	No Additional Comments Required
Commander, Air Force Materiel Command	A.1.a, A.1.b, A.1.c, A.1.d, A.1.e	
Assistant Secretary of the Air Force for Financial Management and Comptroller*		B.2
Director of Resource Integration, Office of the Deputy Chief of Staff for Logistics, Installation and Mission Support	B.1	

* Changed from Principal Deputy Secretary of the Air Force for Financial Management and Controller based on additional information provided by the Air Force.

Please provide comments by October 25, 2009

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Introduction

Objective

The objective of the audit was to determine the extent and causes of deferred maintenance on the Air Force C-130 aircraft used in support of operations in Southwest Asia. In addition, we evaluated compliance with applicable laws and regulations as they relate to the audit objective. See the Appendix for a discussion of scope and methodology and prior coverage. A glossary of technical terms used in this report follows the Appendix.

We performed this audit pursuant to Public Law 110-181, “The National Defense Authorization Act for Fiscal Year 2008,” section 842, “Investigation of Waste, Fraud, and Abuse in Wartime Contracts and Contracting Processes in Iraq and Afghanistan,” January 28, 2008. Section 842 requires “thorough audits . . . to identify potential waste, fraud, and abuse in the performance of (1) Department of Defense contracts, subcontracts, and task and delivery orders for the logistical support of coalition forces in Iraq and Afghanistan; and (2) Federal agency contracts, subcontracts, and task and delivery orders for the performance of security and reconstruction functions in Iraq and Afghanistan.”

Background

For FYs 2005-2007, the Air Force reported approximately \$878.91 million in military equipment deferred maintenance. The C-130 aircraft deferred maintenance accounted for approximately \$135.45 million, or 15.4 percent, of Air Force deferred maintenance. The C-130 aircraft is a 97-foot, 9-inch-long, four-engine tactical transport aircraft that generally operates in the role of intratheater airlift. Its missions include aerial refueling, electronic and psychological warfare, and special operations forces assignments.

Deferred Maintenance Policy

Statement of Federal Financial Accounting Standards (SFFAS) No. 6, “Accounting for Property, Plant, and Equipment,” November 1995, as amended by SFFAS No. 14, “Amendments to Deferred Maintenance Reporting,” April 1999, defines maintenance as the act of keeping fixed assets in acceptable condition. It includes preventative maintenance, normal repairs, replacement of parts and structural components, and other activities needed to preserve the asset so that it continues to provide acceptable services and achieves its expected life. The standard states that maintenance is often underfunded and the consequences are not immediately reported. However, the consequences include increased safety hazards, poor service to the public, higher costs in the future, and inefficient operations. In addition, the Air Force Instruction 21-101, “Aircraft and Equipment Maintenance Management,” June 29, 2006, states that regular maintenance and repair is necessary to keep Air Force aircraft at optimum availability.

SFFAS No. 6 defines deferred maintenance as maintenance that was not performed when it should have been or when scheduled to be and which, therefore, is put off or delayed.

The standard also states that deferred maintenance information related to the condition and the estimated costs to remedy deferred maintenance on property, plant, and equipment is to be reported as Required Supplementary Information (RSI) in the financial statements. In addition, the DOD Financial Management Regulation (FMR), Volume 4, Chapter 6, “Property, Plant, and Equipment,” October 2008,¹ states that DOD Components must report deferred maintenance on property, plant, and equipment in the RSI if the deferred maintenance amounts have a cost that equals or exceeds the DOD capitalization threshold.

The Air Force Technical Order (AFTO) 00-25-4, “Depot Maintenance of Aerospace Vehicles and Training Equipment,” April 1, 2006, states that depot maintenance will be scheduled to allow for the programming of funds, material, personnel, facilities, and other resources. In addition, AFTO 00-25-4 establishes the Air Force’s C-130 aircraft Programmed Depot Maintenance (PDM) cycle requirement based on the mission design series and owning Major Command. Further, the AFTO states that the Maintenance Requirements Review Board² is responsible for evaluating and scheduling all valid depot-level requirements for an appropriate program.

Air Logistics Centers

The Air Force performs noncontract (organic) PDM on its C-130 aircraft at Warner Robins Air Logistics Center (ALC) at Robins Air Force Base, Georgia, Ogden ALC at Hill Air Force Base, Utah, and Aerospace Maintenance and Regeneration Group at Davis-Monthan Air Force Base, Arizona. In addition, the Air Force has two contractors that perform PDM on the C-130 aircraft.

The Warner Robins ALC, operated by the Air Force Materiel Command (AFMC), provides product support, purchasing and supply-chain management, and depot maintenance. The mission of the Warner Robins ALC includes system management and engineering responsibility for various types of equipment, including the C-130 aircraft. In addition, the System Program Office for the C-130 aircraft is located at Warner Robins ALC and is responsible for engineering, worldwide logistics, weapon system readiness, and wartime support. The C-130 System Program Office also manages aircraft overhaul, modernization and modification programs, and unscheduled depot-level maintenance for the C-130 aircraft.

The Ogden ALC provides worldwide logistics management, engineering, modification, and depot maintenance. The Ogden ALC also provides depot-level maintenance, repair, and overhaul for the Air Force C-130 aircraft. The C-130 System Program Office directs the C-130 aircraft workload at Ogden ALC.

¹ The DOD FMR was updated June 2009; however, we used the October 2008 version because our fieldwork phase was before June 2009. In addition, the portions of the DOD FMR used for this audit were not changed.

² Starting FY 2008, the Air Force replaced the Maintenance Requirements Review Board with the Aircraft and Missile Requirements Database process; however, the Air Force instructions are not updated to reflect the change.

Review of Internal Controls

We determined that internal control weaknesses in the Air Force deferred maintenance process existed as defined by DOD Instruction 5010.40, "Managers' Internal Control (MIC) Program Procedures," January 4, 2006. The AFMC internal control process for deferring C-130 aircraft PDM was inadequate. Implementing Recommendations A.1.a, A.1.d, and A.1.e would improve the AFMC's procedures for deferring C-130 aircraft PDM.

In addition, the Air Force did not have internal controls to accurately report the amount of deferred maintenance for the C-130 aircraft in its financial statements. Implementing Recommendations B.1 and B.2 would improve the Air Force's procedures for reporting the deferred maintenance of the C-130 aircraft in the Air Force's financial statements. We will provide a copy of the report to the senior official responsible for internal controls in the Air Force.

Finding A. C-130 Aircraft Deferred Programmed Depot Maintenance

AFMC did not have an adequate internal control process for managing deferred C-130 aircraft PDM. Specifically, AFMC did not ensure that:

- PDM was performed by the scheduled date;
- C-130 aircraft obtained and retained the required PDM extensions; and
- a reliable process was in place for reviewing the PDM extensions.

In addition, partially deferred maintenance was not accurately recorded and was not reported to the Office of Resource Integration. AFMC's process for deferring PDM was inadequate because it either did not have procedures in place or did not follow established procedures to comply with Federal and DOD regulations and Air Force instructions. As a result, the Air Force may have flown 36 C-130 aircraft beyond the scheduled PDM without a written 90-day extension, and 11 of those C-130 aircraft may have flown more than 365 days. Air Force instructions state that C-130 aircraft that do not receive scheduled PDM within the 90-day variance are considered unsafe and unserviceable. In addition, the Major Commands could incur higher maintenance costs, ground part of their C-130 aircraft fleet, or risk weapon system failure before the next PDM.

C-130 Aircraft Programmed Depot Maintenance

From October 1, 2004, through August 1, 2008, 311 C-130 aircraft arrived for PDM at AFMC facilities. To schedule PDM for the C-130 aircraft, the C-130 System Program Office and representatives of the Major Commands annually negotiate the scheduled date for the C-130 aircraft at the PDM scheduling conference. They communicate throughout the year to determine whether the aircraft will arrive at the depot on its originally scheduled date. The Major Commands are responsible for obtaining, reviewing, and retaining PDM extensions in accordance with applicable Office of Management and Budget (OMB) and Air Force criteria.

The C-130 System Program Office uses the Program Management Configuration Control Aircraft Tracking (PM/CCAT) system to track the PDM cycle. Air Force units or Major Commands use the Automated Inspection Repair and Corrosion Aircraft Tracking (AIRCAT) system to submit technical assistance requests, such as PDM extensions, to the engineers for approval or disapproval. The engineers review the technical assistance request, and in the case of PDM extensions, they either approve or disapprove the request, which the AIRCAT system retains. According to C-130 System Program Office personnel, PM/CCAT is not involved with the PDM extensions. Therefore, a reconciliation of the records in the PM/CCAT and AIRCAT systems would allow the C-130 System Program Office to determine whether all C-130 aircraft that have exceeded the PDM cycle have an approved PDM extension on file. However, the C-130 System Program Office does not reconcile the information in PM/CCAT against the information in AIRCAT.

Programmed Depot Maintenance Cycle

AFMC did not perform PDM for 82 of 311 C-130 aircraft within the required PDM cycle in accordance with Air Force instructions. AFTO 00-25-4 requires that an aircraft be inducted a maximum of 90 days after the PDM scheduled date.³ The C-130 aircraft that do not arrive by the scheduled date are considered unsafe to fly unless they received a 90-day extension. Table 1 shows the 82 C-130 aircraft that were not inducted by the scheduled date.

Table 1. C-130 Aircraft Not Inducted by the Scheduled Date

Number of Aircraft With Deferred Maintenance	Days Exceeded the End of the PDM Cycle*
33	1 to 30 days
27	31 to 90 days
7	91 to 180 days
1	181 to 365 days
14	More than 365 days
82	Total

* This column shows the number of days exceeding the 90-day variance allowed by Air Force instructions.

Of the 82 C-130 aircraft, 79 exceeded the PDM cycle because the C-130 aircraft could not arrive before the 90-day variance allowed after the PDM scheduled date. For example, a C-130 aircraft was scheduled to receive its PDM at Warner Robins ALC on October 27, 2006; however, the aircraft was deployed, and the PDM date was moved to December 27, 2006. In addition, one Major Command deferred the PDM of a C-130 aircraft for multiple fiscal years because the aircraft were undergoing unscheduled depot-level maintenance. Furthermore, a C-130 aircraft did not arrive at the depot by the scheduled date because of funding issues.

Three of the 82 C-130 aircraft arrived before the scheduled date, but they were not inducted for PDM by the scheduled date. For example, one Air Mobility Command (AMC) C-130 aircraft arrived at the Ogden ALC by the scheduled date, but was not inducted until 41 days later. According to Warner Robins ALC personnel, unscheduled depot-level maintenance prevented the C-130 aircraft from induction by the scheduled date. As a result of deferring the maintenance to a future period, the risk of grounding part of the C-130 aircraft fleet increased, reducing the mission-readiness of the Major Commands.

³ Induction processing enables work to begin and permits charging work to the project. Upon induction, work orders are released to the appropriate production locations.

Programmed Depot Maintenance Extension Documents

AFMC did not obtain and retain the required PDM extensions in accordance with Air Force criteria. AFTO 00-25-4 states that an operating unit may request approval for a 90-day extension beyond the 90-day variance. The Air Force Instruction 21-101 and AFTO 00-25-107, "Maintenance Assistance," January 15, 2008, require that Air Force personnel:

- document the extensions on approved official communication methods, such as "Maintenance Assistance" forms, and
- keep all authorized technical data variances with the aircraft or equipment historical records until no longer applicable.

For 36 of 79 C-130 aircraft that exceeded the PDM cycle, AFMC did not obtain and retain the required PDM extension. For example, one C-130 aircraft did not receive its PDM because there were "facility parking constraints" at Hill Air Force Base. C-130 System Program Office personnel could not provide the PDM extension document because either the Major Commands did not request the PDM extension from the C-130 System Program Office or the schedulers did not reconcile the information in the AIRCAT system with the PM/CCAT system.

As a result, AFMC did not comply with Air Force Instruction 21-101, AFTO 00-25-107, and AFTO 00-25-4. Therefore, according to these requirements and the PDM schedule, the Air Force may have flown 36 C-130 aircraft that were considered unsafe and unserviceable, and 11 of 36 C-130 aircraft may have flown over the course of 365 days or more. The C-130 aircraft should have been grounded until a PDM extension was obtained, the aircraft received the PDM, or the aircraft was retired. Furthermore, we do not know whether the crews assigned to these C-130 aircraft were aware of the potential safety risk to the C-130 aircraft. Consequently, AFMC needs to review the process to determine why it did not obtain, review, and retain the required PDM extensions.

Programmed Depot Maintenance Extension Process

The C-130 System Program Office does not have a reliable process for reviewing PDM extensions in accordance with OMB Circular A-123, "Management's Responsibility for Internal Control," December 21, 2004, which states that transactions should be authorized and processed accurately and data should be valid and complete. OMB Circular A-123 also states that periodic reviews, reconciliations, or comparisons of data should be included as part of the regular assigned duties of personnel. Of the 79 C-130 aircraft that exceeded the PDM cycle, we received PDM extension documents for 43 C-130 aircraft from the C-130 System Program Office. For 11 of the 43 C-130 aircraft, we identified documentation issues. For example, the C-130 System Program Office granted PDM extensions that:

- retroactively provided extension coverage;
- exceeded the 90-day variance established in AFTO 00-25-4; and
- omitted the reason for requesting the PDM extensions.

The PDM extension documents contained errors because the C-130 System Program Office did not have a reliable process in place to review the information entered into the AIRCAT system. As a result, the C-130 System Program Office granted PDM extensions that did not contain accurate information.

Recording and Reporting Partially Deferred Maintenance

For maintenance tasks approved for deferral, an approval waiver containing the maintenance tasks is recorded and the deferred maintenance tasks are carried forward in the maintenance records until the task is completed. Because the partially deferred maintenance tasks meet the SFFAS No. 6 definition of deferred maintenance, they are to be reported in the RSI of the financial statements in accordance with SFFAS No. 14. Therefore, AFMC is required to record and report partially deferred maintenance.

We reviewed maintenance documents pertaining to a judgmental sample of 34 of 311 C-130 aircraft. For 16 of 34 C-130 aircraft, AFMC partially deferred maintenance for 23 tasks. Table 2 shows the maintenance tasks deferred by number of occurrences.

Table 2. C-130 Aircraft Partially Deferred Maintenance

Required Maintenance Task Deferred	Reasons for Deferral	Number of Occurrences
Remove/Replace Rainbow Fittings	Lack of parts	2
Remove/Replace Truss Mounts	Lack of parts	6
Vertical Beam Repair Task	Lack of parts	6
Other Maintenance Tasks	Limited availability or unavailability of assets; Waiver of inspection	9
Total		23

Recording Partially Deferred Maintenance

AFMC did not record partially deferred maintenance in accordance with the Air Force instructions. To comply with AFMC Manual 21-1, “Air Force Materiel Command Technical Order Systems Procedures,” January 15, 2005, the system engineer should document carry-forward information, such as deferred maintenance tasks, on the AFMC Form 202 and AFTO Form 95. However, AFMC did not record partially deferred maintenance for 13 C-130 aircraft.

For example, on an AFMC Form 202 from AMC for one aircraft, AFMC did not record the partially deferred maintenance in the correct box, and as a result, that information was not included on AFTO Form 95 “Significant Historical Data.” Because AFMC did not enforce its policies for recording partially deferred maintenance, it did not provide proper

oversight for partially deferred maintenance. As a result, AFMC increased the risk of not completing the scheduled maintenance during the next PDM cycle and potentially increasing maintenance cost.

Reporting Partially Deferred Maintenance

AFMC did not report the partially deferred maintenance in accordance with regulations. SFFAS No. 6 defines deferred maintenance as that which was not performed when it should have been or was scheduled to be and was delayed. In addition, DOD FMR, Volume 6B, Chapter 12, “Required Supplementary Information,” September 2008, states that the deferred maintenance methodology used to develop the OP-30 Budget Exhibit should be the basis for reporting deferred maintenance. AFMC did not report to the Office of Resource Integration partially deferred maintenance, which met the SFFAS No. 6 and DOD FMR requirements, for 16 of 34 C-130 aircraft.

AFMC did not report partially deferred maintenance because the Air Force only considers either unfunded scheduled maintenance or nondelivery of a C-130 aircraft to the depot as deferred maintenance. According to personnel from the Office of Resource Integration, the Air Force does not consider the funded maintenance that was scheduled but deferred as deferred maintenance. As a result, AFMC did not report the funded PDM that was scheduled but deferred to the Office of Resource Integration for inclusion into the RSI of the financial statements.

Management Actions

The depots are conducting pilot programs to reduce the time between scheduling and performing depot maintenance, thereby increasing aircraft availability. Specifically, Warner Robins ALC is implementing a High Velocity Maintenance System and the Ogden ALC was developing a process improvement plan for C-130 aircraft maintenance. Each initiative is ALC-specific, and AFMC has established a High Velocity Maintenance Office to develop guidance for the ALCs.

Summary

The AFMC internal control process for deferring PDM for the C-130 aircraft was inadequate. AFMC did not perform the PDM for 82 of 311 C-130 aircraft by the scheduled date. In addition, AFMC did not obtain and retain the required PDM extensions for 36 of 79 C-130 aircraft that arrived at the depot outside of their PDM cycle and were thus considered unsafe to operate. Furthermore, AFMC did not have a reliable process in place for reviewing the PDM extensions. Lastly, AFMC did not accurately record partially deferred maintenance for 13 of 34 C-130 aircraft and did not accurately report partially deferred maintenance for 16 of 34 C-130 aircraft to the Office of Resource Integration. The internal control weaknesses occurred because AFMC did not have procedures to comply with Federal and DOD regulations and Air Force instructions. As a result, the Major Commands could expose themselves to higher maintenance costs, partially grounding the C-130 aircraft fleet, or weapon system failure.

Recommendations, Management Comments, and Our Response

A.1. We recommend that the Commander, Air Force Materiel Command:

a. Develop and implement procedures to improve the process for scheduling Programmed Depot Maintenance.

Management Comments

The Deputy Director of Resource Integration, Deputy Chief of Staff for Logistics, Installations and Mission Support agreed with the recommendation. The Deputy Director stated that AFMC would develop and implement procedures to improve the Programmed Depot Maintenance scheduling process. The Air Force anticipates completing the implementation of this recommendation by October 2009.

Our Response

The Deputy Director's comments were responsive. We request that the Air Force provide a copy of their October 2009 procedures that were developed identifying the procedures that will improve the PDM scheduling process.

b. Conduct a review of the process to determine why it did not obtain, review, and retain the required Programmed Depot Maintenance extensions in accordance with Air Force Technical Order 00-25-4, Air Force Instruction 21-101, and Air Force Technical Order 00-25-107.

Management Comments

The Deputy Director of Resource Integration, Deputy Chief of Staff for Logistics, Installations and Mission Support agreed with the recommendation, stating that AFMC conducted a review of the process and determined that the AIRCAT system captures the required information. AFMC recommended we close this recommendation.

Our Response

Although agreeing with the recommendation, the Deputy Director's comments were not responsive. The comments should provide us the results of the review on not obtaining, reviewing, and retaining the PDM extensions in accordance with AFTO 00-25-4, Air Force Instruction 21-101, and AFTO 00-25-107. In addition, although the Deputy Director stated that the AIRCAT system tracks the required information, we could not determine from the comments whether AFMC performed the requested review and resolved the issues discussed in Finding A of this report.

Further, during the audit we determined that AFMC did not obtain and retain the PDM extensions for some of the C-130 aircraft, and some PDM extensions provided to us contained errors. However, the Deputy Director did not identify any corrective actions AFMC was taking to address the issues. By asking us to close the agreed upon recommendation and not recognizing the deficiencies identified in the finding, the Deputy Director is not ensuring that AFMC is complying with the program requirements

in our recommendation. We request that the Air Force provide additional comments in response to the final report, answering why AFMC did not obtain, review, and retain the required PDM extensions in accordance with AFTO 00-25-4, Air Force Instruction 21-101, and AFTO 00-25-107.

c. Identify immediately any C-130 aircraft that are currently flying without the required Programmed Depot Maintenance extension and either grant the extension, perform the scheduled maintenance, or ground the C-130 aircraft. The Commander of the Air Force Materiel Command should also provide a plan of action within 30 days of the date of this report that implements this recommendation.

Management Comments

The Deputy Director of Resource Integration, Deputy Chief of Staff for Logistics, Installations and Mission Support agreed with the recommendation. The Deputy Director stated that the AIRCAT system now identifies the extension requirements and request status. AFMC will provide a reminder to Major Commands to properly follow request procedures. The Air Force anticipates completing the implementation of this recommendation by September 2009.

Our Response

Although agreeing with the recommendation, the Deputy Director's comments were not responsive. The Deputy Director only stated that the AIRCAT system identifies the extension requirements and request status. The comments did not discuss whether AFMC identified any C-130 aircraft flying without the required PDM extension or whether these aircraft received an extension, received scheduled maintenance, or were grounded. Furthermore, because the Deputy Director's comments did not discuss whether AFMC identified the C-130 aircraft that were currently flying without a PDM extension, the Air Force may be still flying unsafe C-130 aircraft. The Deputy Director's comments also did not include a plan of action. Therefore, we ask that the Air Force provide additional comments in response to the final report, identifying specific corrective actions the Air Force took to address the recommendation. We also request that the Commander, AFMC provide a plan of action within 30 days of the date of this report to address the recommendation.

d. Enforce existing policy to provide proper oversight for recording partially deferred maintenance.

Management Comments

The Deputy Director of Resource Integration, Deputy Chief of Staff for Logistics, Installations and Mission Support agreed with the recommendation, stating that AFMC would enforce policy and provide proper oversight for partially deferred maintenance. The Air Force anticipates completing the implementation of this recommendation by October 2009.

Our Response

The Deputy Director's comments were responsive. However, we ask that AFMC provide specific actions it would take to enforce existing policy to provide proper oversight for recording partially deferred maintenance.

e. Develop and implement procedures to report partially deferred maintenance to the Office of Resource Integration, Deputy Chief of Staff for Logistics, Installations and Mission Support for inclusion in the Required Supplementary Information of the financial statements in accordance with Statement of Federal Financial Accounting Standard No. 6.

Management Comments

The Deputy Director of Resource Integration, Deputy Chief of Staff for Logistics, Installations and Mission Support agreed with the recommendation, stating that the Air Force would develop procedures to properly report deferred maintenance. The Air Force anticipates completing the implementation of this recommendation by February 2010.

Our Response

The Deputy Director's comments were responsive. Although the Air Force agreed to develop procedures to report partially deferred maintenance, the comments did not address the process for implementing the procedures to report partially deferred maintenance to the Office of Resource Integration for inclusion in the RSI of the financial statements. We ask the Air Force to provide additional comments in response to the final report, identifying the specific actions planned to implement procedures to report partially deferred maintenance.

Finding B. Financial Reporting of C-130 Aircraft Deferred Maintenance

For FYs 2005-2007, the Air Force reported approximately \$135.45 million for C-130 aircraft deferred maintenance. However, that amount was unreliable because the Air Force did not validate its maintenance requirements at the end of the fiscal year. Further, the Air Force did not follow established guidance to report accurate deferred maintenance. As a result, the Air Force inaccurately reported deferred maintenance for the C-130 aircraft in the RSI of the financial statements for FYs 2005-2007. The DOD and Air Force management should not rely on the information for making informed decisions.

Reporting Deferred Maintenance

The Air Force used the OP-30 Budget Exhibit to report deferred maintenance in FYs 2005-2007. According to the DOD FMR volume 6B, chapter 12, the OP-30 Budget Exhibit should be used as the basis for reporting deferred maintenance, but that material amounts of deferred maintenance may exist beyond the scope of the OP-30 Budget Exhibit and therefore warrant reporting. Table 3 shows the \$135.45 million in deferred maintenance the Air Force reported for FYs 2005-2007.

Table 3. FYs 2005-2007 C-130 Aircraft Reported Deferred Maintenance (millions)

Commodity	FY 2005	FY 2006	FY 2007	Total
Aircraft	\$20.97	\$1.00	\$8.91	\$30.88
Aircraft PDM	7.55	13.42	31.02	51.99
Engine	16.89	12.77	19.39	49.05
Software	17.85	(14.44)*	0.06	3.47
Storage	0.04	0.00	0.02	0.06
Total	\$63.30	\$12.75	\$59.40	\$135.45

Note: When we conducted the site visits, the Air Force was unable to provide the actual deferred maintenance figures for FY 2008. On February 24, 2009, the Air Force reported this information to us; however, we did not have time to validate the FY 2008 data with the Major Commands.

* For FY 2006, the Air Force reported minus \$14.44 million for software commodities because it applied additional funding toward software commodities.

At the beginning of each fiscal year, Air Force Headquarters uses the scheduled depot maintenance requirements established in the Maintenance Requirements Review Board brochure and data call request from the Major Commands to develop the OP-30 Budget Exhibit. The Board brochure includes tasks, approved hours, occurrence factors, and number of aircraft scheduled to work per year by mission design series. The data call request should contain the Major Command's identified number of C-130 aircraft that require maintenance and the related funding figures.

Programmed Depot Maintenance Reporting Process

For FYs 2005-2007, the Air Force did not validate the reported deferred maintenance at the end of each fiscal year. According to OMB Circular A-123, internal control is a process designed to provide reasonable assurance regarding the reliability of financial reporting. At the beginning of each fiscal year, the Air Force develops the OP-30 Budget Exhibit requirements based on the scheduled maintenance requirements and the data call request. According to Air Force personnel, at the end of the fiscal year, the Air Force may adjust the OP-30 requirements based on changes to the scheduled depot maintenance that was performed during the fiscal year. However, the Air Force did not follow established guidance to report accurate deferred maintenance at the end of the fiscal year. In addition, the Air Force did not establish quality assurance procedures to verify the deferred maintenance reported at the end of the fiscal year.

For example, in FYs 2005-2007, the Air Force incorrectly reported deferred maintenance in the RSI of the financial statements for 15 of 27 C-130 aircraft that belonged to Air National Guard (ANG), Air Mobility Command (AMC), Air Education and Training Command (AETC), and Air Force Reserve Command (AFRC). Table 4 shows the 15 C-130 aircraft that the Commands incorrectly reported as having deferred maintenance.

Table 4. Incorrectly Reported Deferred Maintenance for FYs 2005-2007

FY	Major Command	Total Reported	Received PDM	Planned Retirement	Inconsistently Reported	Total Incorrectly Reported
2005	ANG	5	1	0	0	1
	AMC	1	0	0	0	0
2006	AMC	4	0	2	0	2
	AETC	1	1	0	0	1
	ANG	4	0	0	1	1
2007	AMC	9	6	2	0	8
	AFRC	3	0	2	0	2
Total		27	8	6	1	15

We identified the following inconsistencies based on data provided by the Major Commands:

- Of 15 C-130 aircraft incorrectly reported, 8 received their PDM during the fiscal year they were reported as having deferred maintenance. For example, the Air Force reported an AMC C-130 aircraft as having deferred maintenance in FY 2007. However, the C-130 aircraft's PDM documentation shows that it arrived at Ogden ALC on March 28, 2007, and began PDM work on March 29, 2007. Because the C-130 aircraft began receiving maintenance within the scheduled fiscal year, the aircraft should not have been reported as deferred maintenance.

- Of 15 C-130 aircraft incorrectly reported, 6 were retired and reported as having deferred maintenance. The Air Force did not exclude the C-130 aircraft from the amount of deferred maintenance reported. For example, in FY 2007, the Air Force reported an AFRC C-130 aircraft as having deferred maintenance. However, the Air Force retired it on January 18, 2007. Thus, the C-130 aircraft would not have had its PDM performed because the Air Force retired it.
- Of 15 C-130 aircraft incorrectly reported, the Air Force inconsistently reported 1 ANG C-130 aircraft. According to personnel at the Office of Resource Integration, for FY 2006, maintenance for four ANG C-130 aircraft was reported as deferred. However, personnel at ANG stated that they only reported maintenance for three C-130 aircraft as deferred. In addition, personnel at the Office of Resource Integration and ANG could not provide supporting documentation to substantiate the numbers.

Reliable financial information is critical to reducing Government waste and balancing the budget. The Air Force did not ensure that the deferred maintenance amounts reported in the RSI of the financial statements were accurate. Because it did not follow established guidance for deferring maintenance during FYs 2005-2007 and did not establish quality assurance procedures to verify the deferred maintenance reported at the end of the fiscal year, the Air Force inaccurately reported deferred maintenance for the C-130 aircraft in the RSI of the financial statements for FYs 2005-2007. Although the requirement to comply with SFFAS No. 6 became effective in FY 1998, the Air Force did not have procedures to ensure compliance with SFFAS No. 6. Furthermore, a prior DOD Inspector General (DOD IG) audit report titled “Financial Reporting of Deferred Maintenance Information on Air Force Weapons Systems for FY 2002,” Report No. D-2003-030, November 2002, recommended that the Air Force improve its deferred maintenance reporting procedures. The Air Force should have validated the ending deferred PDM for the C-130 aircraft by updating the changes identified by the Major Commands.

Summary

The Air Force did not validate the C-130 aircraft reported deferred maintenance at the end of each fiscal year. A prior DOD IG audit report recommended that the Air Force improve its deferred maintenance reporting procedures. However, the Air Force did not follow established guidance for validating the ending deferred maintenance, and it reported deferred maintenance requirements that did not reflect the actual amount at year-end. In addition, the Air Force did not implement quality assurance procedures to validate the accuracy of the deferred maintenance amounts in the RSI of the financial statements.

Because the Air Force did not follow established guidance, it could not ensure the accurate reporting of deferred maintenance. As a result, the Air Force inaccurately reported deferred maintenance for the C-130 aircraft in the RSI of the financial statements for FYs 2005-2007. Therefore, DOD and Air Force management should not use the information for making informed decisions.

Recommendations, Management Comments, and Our Response

B.1. We recommend that the Director of Resource Integration, Deputy Chief of Staff for Logistics, Installations and Mission Support enforce existing guidance and perform procedures to update the reporting of deferred maintenance to reflect the maintenance requirement changes identified by the Major Commands.

Management Comments

The Deputy Director of Resource Integration, Deputy Chief of Staff for Logistics, Installations and Mission Support agreed with the recommendation. The Deputy Director stated that the Air Force would review and update procedures as necessary to ensure the Major Commands report updated deferred maintenance. The Air Force anticipates completing the implementation of this recommendation by February 2010.

Our Response

The Deputy Director's comments were responsive. We request the Deputy Director provide us a copy of the procedures for updating the reporting of deferred maintenance to reflect the maintenance requirement changes identified by the Major Commands.

B.2. We recommend that the Assistant Secretary of the Air Force for Financial Management and Comptroller establish quality assurance procedures to verify the accuracy and validity of deferred maintenance amounts reported in the Required Supplementary Information of the financial statements.

Management Comments

The Deputy Director of Resource Integration, Deputy Chief of Staff for Logistics, Installations and Mission Support agreed with the recommendation, stating that the Assistant Secretary of the Air Force for Financial Management (SAF/FM) was working to improve the accuracy and validity of deferred maintenance amounts reported in the RSI in Air Force financial statements. Further, SAF/FM has started action to have the Air Force Audit Agency periodically audit deferred maintenance and conduct reviews of deferred maintenance financial reporting. In addition, SAF/FM subject matter experts are to participate in actions to correct Air Force procedures for collecting and reporting financial statement RSI. The Air Force anticipates completing the implementation of this recommendation by February 2010.

Our Response

The Deputy Director's comments were responsive, and no further comments are required.

Appendix. Scope and Methodology

We conducted this performance audit from June 2008 through May 2009 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

We assessed the extent and causes of deferred maintenance on the Air Force C-130 aircraft used in support of operations in Southwest Asia. Specifically, we assessed the AFMC procedures for reporting deferred maintenance on the C-130 aircraft. We focused on maintenance deferred from October 1, 2004, through August 1, 2008. To perform the audit, we reviewed applicable Federal, DOD, and Air Force guidance and interviewed engineers, master schedulers, program managers, financial management personnel, and contractor personnel at the Deputy Under Secretary of Defense for Logistics and Materiel Readiness; Headquarters U.S. Air Force, AFRC, and AMC; Warner Robins and Ogden ALCs; and the C-130 System Program Office. We conducted the interviews from July 25, 2008, to November 12, 2008. In addition, we examined the OP-30 Budget Exhibit, the C-130 Aircraft PDM Schedule, and C-130 aircraft records prepared by four Major Commands.

For our universe, we requested OP-30 information that supports the deferred maintenance reported for the C-130 aircraft in the RSI of the financial statements during FYs 2005-2008. We received OP-30 information and actual figures for FYs 2005-2008. In addition, we obtained a copy of the C-130 Aircraft PDM Schedule for FYs 2005-2013, dated August 1, 2008. We used the C-130 aircraft PDM schedule to analyze 311 aircraft to determine whether these aircraft received their PDM within the PDM cycle and to select a non-statistical sample of 34 C-130 aircraft to determine whether all of the scheduled PDM tasks were performed.

Use of Computer-Processed Data

To achieve the audit objective, we used data that originated in Acrobat Portable Document Format, Microsoft Excel, AIRCAT, and PM/CCAT provided by the four Major Commands: Air National Guard (ANG), Air Mobility Command (AMC), Air Education and Training Command (AETC), and Air Force Reserve Command (AFRC). To test the reliability of the sample data, we compared them to source documents such as AFTO Form 95, inventory records, PDM extensions, Federal and DOD regulations, and Air Force instructions. The assessment indicated that the data were sufficiently reliable to meet the audit objective.

Prior Coverage

During the last 7 years, DOD Inspector General has issued one report discussing the budgeting and financial reporting of depot maintenance. Unrestricted DOD IG reports can be accessed over the internet at <http://www.dodig.mil/audit/reports>.

During the last 7 years, the Air Force Audit Agency has issued two reports discussing the budgeting and financial reporting of depot maintenance. Air Force Audit Agency reports can be accessed from .mil domains over the Internet at <https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-AD-01-41> by those with Common Access Cards.

DOD IG

DOD IG report No. D-2003-030 “Financial Reporting of Deferred Maintenance Information on Air Force Weapons System for FY 2002,” November 27, 2002

Air Force Audit Agency

Air Force Audit Agency Report No. F2006-0008-FC2000, “Follow-Up Audit - C-130 Aircraft Logistics Support,” June 21, 2006

Air Force Audit Agency Report No. F2003-0004-FC2000, “C-130 Aircraft Logistics Support,” January 29, 2003

Glossary

Air Force Materiel Command Form 202 “Nonconforming Technical Assistance Request and Reply.” A maintenance activity uses this form to request technical assistance from the responsible engineer or equipment specialist when published technical data are not adequate. A maintenance activity also uses AFMC Form 202 to request technical assistance in the event of parts or material shortages.

Air Force Technical Order Form 95 “Significant Historical Data Record.” The Air Force uses the AFTO Form 95 to document and maintain a permanent history of significant maintenance actions on end items of equipment.

Maintenance Requirements Review Board. The Board is the Air Force panel that ensures all valid depot-level maintenance requirements are evaluated and scheduled to be accomplished in the appropriate fiscal year.

OP-30 “Budget Exhibit Operations Depot Maintenance.” The OP-30 Budget Exhibit accompanies the President’s Budget and is used as the basis for identifying and reporting amounts in the National Defense Property, Plant, and Equipment Deferred Maintenance table.

Programmed Depot Maintenance. Depot maintenance facilities inspect and correct defects that require skills, equipment, or facilities not normally possessed by operating locations.

Programmed Depot Maintenance Cycle. C-130 aircraft are scheduled for PDM on a cyclic interval with the cycle time stated in months. The PDM interval is measured from the output date of the last PDM to the input date of the next PDM due. A C-130 aircraft is due PDM when the appropriate cycle time has been reached.

Programmed Depot Maintenance Extensions. To help meet operational requirements or to smooth out depot workload, the System Program Director has authority to grant an additional 90-day extension beyond the allowed 90-day variance for a total of up to 180 days past the PDM due date.

Required Supplementary Information. All Federal agencies are required to report RSI. DOD must report deferred maintenance for property, plant, and equipment in the RSI section of its annual financial statements.

Unprogrammed Depot-Level Maintenance. Unscheduled depot-level maintenance is that which is not included in the fiscal year forecast and includes events such as catastrophic damage to missile weapon systems, crash damage to aircraft, and abnormal wear and tear of equipment.

Department of the Air Force Comments



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

14 Aug 09

MEMORANDUM FOR DODIG-AUD (ATTN: USAF C-130 aircraft deferred Maintenance)
Department of Defense Inspector General
400 Army Navy Drive (Room 801)
Arlington, VA 22202-4704

FROM: HQ USAF/A4/7P
1030 Air Force Pentagon
Washington DC 20330-1030

SUBJECT: Deferred Maintenance on the Air Force C-130 Aircraft (Project No. D2008-D000FH-0225.000)

The purpose of this memo is to address the DoDIG audit recommendations listed in the C-130 Deferred Maintenance Audit (Project No. D2008-D000FH-0225.000).

Attached you will find the responses/comments to all seven recommendations which have been validated by HQ AFMC/A4, SAF/FMP, AF/A4L and AF/A4/7P.

We appreciate the assessment your team provided and look forward to working with them in closing any unresolved issues. If you have additional questions please contact my POC; [REDACTED]

Michele M. Rachie
MICHELE M. RACHIE, SES
Deputy Director of Resource Integration
DCS/Logistics, Installations & Mission Support

Attachment:
AF Response to DoDIG Recommendations (A1a-A1e & B1-B2)

Attachment

Deferred Maintenance on the Air Force C-130 Aircraft

Project No. D2008-D000FH-0225.000

Finding A. C-130 Aircraft Deferred Programmed Depot Maintenance

AFMC did not have an adequate internal control process for managing deferred C-130 aircraft PDM. Specifically, AFMC did not ensure that:

- PDM was performed by the scheduled date;
- C-130 aircraft obtained and retained the required PDM extensions; and
- A reliable process was in place for reviewing the PDM extensions.

In addition, partially deferred maintenance was not accurately recorded and was not reported to the Office of Resource Integration. AFMC's process for deferring PDM was inadequate because it either did not have procedures in place or did not follow established procedures to comply with Federal and DoD regulations and Air Force instructions. As a result, the Air Force may have flown 36 C-130 aircraft beyond the scheduled PDM without a written 90-day extension, and 11 of those C-130 aircraft may have flown more than 365 days. Air Force instructions state that C-130 aircraft that do not receive scheduled PDM within the 90-day variance are considered unsafe and unserviceable. In addition, the Major Commands could incur higher maintenance costs, ground part of their C-130 aircraft fleet, or risk weapon system failure before the next PDM.

Recommendations:

A.1. We recommend that the Commander, Air Force Materiel Command:

a. Develop and implement procedures to improve the process for scheduling Programmed Depot Maintenance.

Comment: CONCUR - AFMC will develop and implement procedures to improve the PDM scheduling process. ECD: Oct 2009

b. Conduct a review of the process to determine why it did not obtain, review, and retain the required Programmed Depot Maintenance extensions in accordance with Air Force Technical Order 00-25-4, Air Force Instruction 21-101, and Air Force Technical Order 00-25-107.

Comment: CONCUR - Review of the process was conducted by AFMC and determined the required information is captured within the Automated Inspection Repair and Corrosion Aircraft Tracking (AIRCAT) system. AFMC recommends this item be closed.

c. Identify immediately any C-130 aircraft that are currently flying without the required Programmed Depot Maintenance extension and either grant the extension, perform the scheduled maintenance, or ground the C-130 aircraft. The Commander of the Air Force Materiel Command should also provide a plan of action within 30 days of the date of this report that implements this recommendation.

Comment: CONCUR - Extension requirements and request status are now identified within the AIRCAT system. AFMC will provide a reminder to MAJCOMs to properly follow request procedures. ECD: Sep 2009

Attachment

d. Enforce existing policy to provide proper oversight for recording partially deferred maintenance.

Comment: CONCUR – AFMC will enforce policy and provide proper oversight for recording partially deferred maintenance. ECD: Oct 2009

e. Develop and implement procedures to report partially deferred maintenance to the Office of Resource Integration, Office of the Deputy Chief of Staff for Logistics, Installation and Mission Support for inclusion in the Required Supplementary Information of the financial statements in accordance with Statement of Federal Financial Accounting Standard No. 6.

Comment: CONCUR – The Air Force will develop procedures to properly report deferred maintenance. ECD: Feb 2010

Finding B. Financial Reporting of C-130 Aircraft Deferred Maintenance

For FYs 2005-2007, the Air Force reported approximately \$135.45 million for C-130 aircraft deferred maintenance. However, that amount was unreliable because the Air Force did not validate its maintenance requirements at the end of the fiscal year. Further, the Air Force did not follow established guidance to report accurate deferred maintenance. As a result, the Air Force inaccurately reported deferred maintenance for the C-130 aircraft in the RSI of the financial statements for FYs 2005-2007. The DoD and Air Force management should not rely on the information for making informed decisions.

Recommendations:

B.1. We recommend that the Director of Resource Integration, Office of the Deputy Chief of Staff for Logistics, Installation and Mission Support enforce existing guidance and perform procedures to update the reporting of deferred maintenance to reflect the maintenance requirement changes identified by the Major Commands.

Comment: Concur- The Air Force agrees with the intent of the recommendation. The Air Force will review and update procedures as necessary to ensure reports of deferral maintenance is identified by the Major Commands. ECD: Feb 2010

B.2. We recommend that the Principal Deputy Assistant Secretary of the Air Force for Financial Management and Comptroller establish quality assurance procedures to verify the accuracy and validity of deferred maintenance amounts reported in the Required Supplementary Information of the financial statements.

Comment: Concur - SAF/FM agrees with the intent of recommendation B.2. SAF/FM is working to facilitate accuracy and validity of deferred maintenance amounts reported in the Required Supplementary Information in Air Force financial statements. Air Force Accounting Policy and Reporting (SAF/FMPR) has initiated action with the Air Force Audit Agency to 1) include in future maintenance oriented audits reviews of deferred maintenance financial reporting; and/or 2) periodically perform Deferred Maintenance Audits on older Air Force operational Aircraft types where deferred maintenance financial reporting issues are more likely. ECD: Complete

SAF/FM subject matter experts will participate in the planned Business Process Improvement initiative to correct Air Force procedures for collecting and reporting Financial Statement Required Supplementary Information, Deferred Maintenance valuation. ECD: Feb 2010



Inspector General Department of Defense

