Report No. D-2007-111 July 9, 2007

Inspector General
United States Department of Defense

Uniform Standards for Customer Wait Time

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Acronyms

CWT	Customer Wait Time
GAO	General Accountability Office
QMD	Quantitative Methods Directorate
UIC	Unit Identification Code

INSPECTOR GENERAL
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July 9, 2007

MEMORANDUM FOR DEPUTY UNDER SECRETARY OF DEFENSE FOR
LOGISTICS AND MATERIEL READINESS
AUDITOR GENERAL, DEPARTMENT OF THE ARMY
NAVAL INSPECTOR GENERAL

SUBJECT: Report on Uniform Standards for Customer Wait Time
(Report No. D-2007-111)

We are providing this report for review and comment. The Marine Corps Logistics Command did not respond to the draft report. Even though not required, the Army, Office of the Deputy Chief of Staff, G-4 sent comments that concurred with the recommendations. The complete text of the comments is in the Management Comments section of the report.

DoD Directive 7650.3 requires that all recommendations be resolved promptly. Therefore, we request that the Marine Corps Logistics Command to provide comments on Recommendation 2. by August 9, 2007.

If possible, please send management comments in electronic format (Adobe Acrobat file only) to Audros@dodig.mil. Copies of the management comments must contain the actual signature of the authorizing official. We cannot accept the / Signed / symbol in place of the actual signature. If you arrange to send classified comments electronically, they must be sent over the SECRET Internet Protocol Router Network (SIPRNET).

We appreciate the courtesies extended to the staff. Questions should be directed to Mr. Thomas S. Bartoszek at (703) 604-9619 (DSN 664-9619) or Mr. John W. Henry at (215) 737-3883 (DSN 444-3883). The team members are listed inside the back cover. See Appendix E for the report distribution.

By direction of the Deputy Inspector General for Auditing:

Wanda A. Scott
Assistant Inspector General
Readiness and Operations Support

Department of Defense Office of Inspector General

Report No. D-2007-111 **July 9, 2007**
(Project No. D2005-D000LD-0129.000)

Uniform Standards for Customer Wait Time

Executive Summary

Who Should Read This Report and Why? Logistics personnel affiliated with the customer wait time metric for DoD should read this report. This report evaluates the DoD efforts to implement a standard for customer wait time; specifically, the report discusses the actions that the Army and Marine Corps took to establish, measure, and evaluate a customer wait time metric.

Results. DoD officials established business rules, defined goals for measuring customer wait time, and reported customer wait time metrics from 2001 to 2005. Further, the customer wait time days reported to DoD by selected Army and Marine Corps units during the fourth quarter of FY 2005 were generally accurate. However, the customer wait time metric did not allow DoD officials to effectively measure the link between customer wait time and operational availability of equipment. Consequently, officials do not know how the customer wait time for high priority items will affect operational readiness. If the Customer Wait Time Committee were to require the Services to report customer wait time performance for high priority requisitions separately, then DoD could attempt to link customer wait time to operational readiness. Also, if the Marine Corps Logistics Command were to submit only transactions initiated at the organization level to DoD officials, that action would provide DoD officials with uniform results for measuring customer wait time. See the Finding section of this report for detailed recommendations. The Managers' Internal Control Program that we reviewed was effective in that we did not identify any material management control weaknesses.

Management Comments and Audit Response. We received comments from the Principal Assistant Deputy Under Secretary of Defense (Logistics and Materiel Readiness) who concurred with Recommendation 1.a. He stated that the Services submit high priority transactions separately and they have built a drill down tool that defines high priority requisitions as those that have an urgent need. The tool is now fully operational. The Principle Assistant Deputy Under Secretary partially concurred with Recommendation 1.b. He stated that while customer wait time and operational readiness are two of the Department's key metrics, customer wait time for spares is a small piece of what affects operational readiness. Therefore, determining the affect of customer wait time on readiness is not feasible. However, customer wait time and operational readiness will continue to be a key DoD metric and each will be analyzed as part of the overall logistics performance metrics framework. Although not required to comment on Recommendation 2., the Principle Assistant Deputy Under Secretary stated that customer wait time is the time it takes from customer order to receipt regardless of who fills the order. Therefore, both retail and wholesale transactions are included in the metrics.

Although not required to comment, the Army, Office of the Deputy Chief of Staff, G-4, concurred with the recommendations. She stated that the Army already submits high priority requisitions but does not currently measure customer wait time metrics by

separating high priority and routine requisitions. She also stated that the Army is working a process to target inventory that is based on readiness. In addition, the Army is reviewing the feasibility of reviewing fill rates by weapon system.

The draft report was issued on January 25, 2007. The Marine Corps Logistics Command did not respond to the draft report.

Although the Principle Assistant Deputy Under Secretary's comments concurred with Recommendation 1.a. and partially concurred with Recommendation 1.b., his planned action was not responsive. Concerning Recommendation 1.a., the Principle Assistant Under Secretary did not address revising the business rules to define high priority requisitions. For Recommendation 1.b., the Principle Assistant Under Secretary stated that determining the effect of customer wait time on readiness is not feasible. However, he also stated that customer wait time and operational readiness will be analyzed as part of the overall logistics performance metric. His response did not indicate how his analysis would tie CWT to operational readiness We considered the Principle Assistant Deputy Under Secretary's comments on Recommendation 2. and changed the final report to clarify the measurement of customer wait time.

We request that the Principal Assistant Deputy Under Secretary of Defense (Logistics and Materiel Readiness) and the Marine Corps Logistics Command provide comments by August 9, 2007. See the Finding section of the report for a discussion of management comments and the management comments section of the report for the complete text of the comments.

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Background

Supply Chain Management. Supply chain management is a series of individual processes and activities that are used to purchase, produce, and deliver items and services to the warfighter. The goal of supply chain management is to deliver the "right items to the right place at the right time." In 1990, the General Accountability Office (GAO) identified the DoD inventory management processes or supply chain management as "high risk" because of long-standing problems, such as excess inventory levels, inadequate internal controls, and cost overruns, all of which affect the supply chain support to the warfighter.

Performance Measurements. The DoD Logistics community determined in 1993 that measuring the time it took to deliver materiel to customers would be a key performance measure for monitoring supply chain effectiveness. Using data that were readily available from the Defense Automated Addressing Service Center, Defense Logistics Agency, DoD captured transactions that were transmitted through the wholesale logistics system, which helped to analyze the time the customers spent waiting for materiel. The measurement was called logistics response time and measured the time that elapsed from the date the customers requisitioned materiel until the date they received it through the wholesale logistics system. However, the logistics response time did not include inventories of materiel that the Services pre-position at local supply organizations. Also, it did not distinguish between requisitions for maintenance organizations and the requisitions for replenishing existing inventory levels.

In the DoD FY 2000 Logistics Strategic Plan, senior DoD logistics leaders agreed that DoD needed to develop a new way to measure logistics response time that included the requisitions or transactions from maintenance organizations that the local supply organizations filled. The new measurement, termed "Customer Wait Time (CWT)" would become a key DoD performance metric. It measured "order-to-receipt time" for spare and repair parts that organization-level maintenance organizations submit. These organizations are responsible for maintaining assigned equipment including inspecting, servicing, lubricating, adjusting, and replacing parts, minor assemblies, and subassemblies. The current CWT metric was not intended to measure transactions generated by organizations above the maintenance level for the replenishment of stock.

Requisition Priority Designator. On July 8, 2005, in an effort to remove supply chain management from the GAO high-risk classification, DoD issued a plan to correct weaknesses in three key areas: forecasting supply requirements, distributing materiel, and asset visibility. According to GAO representatives, the DoD plan was a good start; however, they thought it should also answer questions such as, "Does DoD have the ability to demonstrate progress in implementing corrective measures?" In answering this question, GAO officials reported that the DoD plan included some metrics for supply chain management that included CWT. The DoD goal under the plan was a CWT of 20 days.

Objectives

The overall audit objective was to evaluate DoD implementation of standards for measuring CWT. Specifically, we reviewed the actions of the DoD CWT Committee to determine whether it developed uniform business rules for measuring and reporting CWT. In addition, we evaluated the rules and process that the Services and the Defense Logistics Agency used to determine whether they measured, evaluated, and reported on CWT. We also reviewed the management control program as it related to the overall objective. See Appendix A for a discussion of the audit scope and methodology.

Review of Internal Controls

DoD Directive 5010.38, "Management Control (MC) Program," August 26, 1996, and DoD Instruction 5010.40, "Management Control (MC) Program Procedures," August 28, 1996,[1] require DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance programs are operating as intended and to evaluate the adequacy of the controls.

Scope of the Review of the Management Control Program. We reviewed the adequacy of management controls and management's self assessment over supply chain management. Specifically, we reviewed the methodology used to compute and report CWT for the Army and Marine Corps organizations included in the audit. We limited our review to the Army and Marine Corps organizations because the Army processed the highest number of CWT transactions during FY 2005, approximately 76 percent, and the Marine Corps reported the highest number of CWT in days. Specifically, we reviewed the procedures for computing and reporting CWT.

Adequacy of Management Controls. The Army's methodology for computing and reporting CWT agreed with established DoD business rules. However, the business rules need to reemphasize the importance of linking CWT to the operational availability of equipment. Furthermore, the Marine Corps did not consistently apply the DoD business rules when computing and reporting CWT because they included wholesale-level transactions in their computations. However, because the Marine Corps represents a relatively small portion (2 percent) of the total CWT requisitions, we do not consider this to be a material weakness.

[1] Office of Management and Budget Circular No. A-123, " Management's Responsibility for Internal Control," December 21, 2004, provides updated internal control standards and new requirements for conducting management's assessment of internal controls over financial reporting. Revised OMB Circular No. A-123 became effective in FY 2006. Subsequently, DoD canceled DoD Directive 5010.38 and issued DoD Instruction 5010.40 "Managers' Internal Control Program Procedures," January 4, 2006.

Measuring Customer Wait Time

DoD officials established business rules, defined goals for measuring, and reported CWT metrics from 2001 to 2005. Further, the CWT days that selected Army and Marine Corps units reported to DoD during the fourth quarter of FY 2005 were generally accurate. However, the CWT metric did not allow DoD officials to effectively measure the link between CWT and the operational availability of equipment. This condition occurred because CWT business rules required the Services to compute and report all transactions that maintenance organizations generated, regardless of whether the transaction was a routine or a high priority request. Consequently, DoD officials are not able to determine how high priority items affect the Services' operational readiness.

CWT Criteria

DoD Instruction 4140.61, "Customer Wait Time and Time Definitive Delivery." The Principal Under Secretary of Defense for Acquisition, Technology, and Logistics issued DoD Instruction 4140.61, December 14, 2000. The Instruction included guidance on policy and procedures and assigned responsibilities for establishing CWT standards throughout DoD. The Instruction also defined CWT as a measurement of total elapsed time between the issuance of a customer order and the satisfaction of the order. The Deputy Under Secretary of Defense (Logistics and Materiel Readiness) established a CWT Committee to develop and maintain a set of business rules to measure performance and report CWT, to develop a CWT measure, and to establish CWT performance goals. Officials could then compare CWT performance to the goals and identify trends and improvements. The CWT Committee included members from each Military Department and the Defense Logistics Agency.

Business Rules for Measuring CWT, Goals and Reported CWT Metrics

CWT Business Rules. The Deputy Under Secretary of Defense (Logistics and Materiel Readiness) commissioned a CWT Committee to develop a comprehensive set of business rules to measure and report CWT and link CWT performance to readiness indicators for spare and repair parts. In December 2000, the CWT Committee established business rules for measuring CWT based on "order-to-receipt time" for spare and repair parts that maintenance organizations submit. A maintenance organization is one that generally performs maintenance on its assigned equipment. Maintenance consists of inspecting, servicing, lubricating, and adjusting, as well as replacing parts, minor assemblies, and subassemblies.

The CWT Committee also developed a methodology for calculating CWT that used the total elapsed time, expressed in days, between the customer request and the order being filled, specifically by subtracting the date entered on the request document from the date recorded on the receipt document. The CWT goals measured transactions initiated at the organization level. Each month, the

Services submitted their summary CWT performance information to the Defense Automated Addressing Service Center, Defense Logistics Agency, which compiled the data and made the information available to DoD Components through a web-based environment.

The rules also stated that, as a first step toward linking readiness to CWT, the Services would collect a readiness rate and a CWT each month, analyze the strength of the relationship, and then discuss the results with the CWT Committee. Senior DoD Logistics leaders subsequently approved the business rules at a meeting of the Logistics Reform Senior Steering Group[2] in FY 2000. In FY 2001, the Services began collecting and reporting their CWT to DoD using those business rules.

CWT Goals and Reported CWT for FY 2002 to FY 2005. Although the Services began to report their CWT results as early as FY 2001, it was not until 2003 that DoD officials established CWT goals to measure CWT improvements. DoD officials did not establish a CWT goal for FYs 2001 and 2002 because they could not determine a reasonable, attainable goal. For FY 2003, DoD officials used 16 days as the DoD CWT goal and 15 days for FY 2004 and FY 2005. DoD officials were unable to explain or provide documentation to support how they developed the CWT goal in 2003 and how it evolved in 2004 and 2005.

The CWT results reported from FY 2002 through FY 2005 was a roll-up of each Service's reported CWT for all requisitions completed during the year. Table 1 shows the average CWT days reported by the Army and Marine Corps from FY 2002 through FY 2005 and the goals that DoD established for each year except 2002.

Table 1. Average CWT Days and DoD Goals

	FY02 Actual/Goal	FY03 Actual/Goal	FY04 Actual/Goal	FY05 Actual/Goal
Army	17/None	22 /16	26/15	24/15
Marine Corps	19/None	22 /16	27/15	36/15

Table 1 shows that the Army and Marine Corps CWT days were higher than established goals. DoD officials attributed the increase to demand for critical items and the delays to closing transactions for Operation Iraqi Freedom. Marine Corps officials also attributed the increase to delays in posting closed transactions. Army officials attributed the CWT increase from FY 2002 through FY 2004 to an increase in transactions submitted by National Guard units and attributed the decrease in FY 2005 to establishing in-theater supply lines and reusing equipment within theater.

[2] The Logistics Reform Senior Steering Group comprises the Deputy Chief of Staff for Logistics of each Service; the Director, Defense Logistics Agency; the Commander, Transportation Command; the Deputy Under Secretary of Defense (Logistics and Materiel Readiness); and the Director for Logistics, Joint Staff.

CWT Reported for the Fourth Quarter of FY 2005

The Army and Marine Corps reported, and our sample verified, that the CWT information submitted to DoD was generally accurate. A statistical sample of 2,100 closed CWT transactions processed during the fourth quarter of FY 2005 showed that the average for CWT days was actually better than that being reported to DoD for selected Army and Marine Corps organizations. We selected the Army because it processed most of the requisitions during the fourth quarter of 2005, and the Marine Corps because it had the highest average CWT days among all the Services. See Appendix B for the list of Army and Marine Corps organizations in the sample. The Services processed 3,163,473 requisitions during the fourth quarter of FY 2005; the Army submitted 2,385,664 requisitions and the Marine Corps submitted 64,705 requisitions for a total of 2,450,369 or a combined total of 77 percent. The remaining requisitions were attributed to the Navy and Air Force. See Appendix C for the CWT process used by the Army and Marine Corps, our sample methodology, and the results.

Army Sample. For the 22 Army organizations included in our review, we projected the actual CWT of 15.08 days compared to the 15.90 days that the Army reported to DoD. We identified that the difference was caused by delays in processing and posting receipt documents. In addition, based on our statistical sample at a 90 percent confidence level, the actual CWT was between the projected low of 13.66 days and the high of 16.83 days. We did not consider that the difference between our CWT calculations and the CWT that the Army reported to be material. See Appendix D for the Quantitative Plan and Statistical Analysis and Interpretation for the Army.

Marine Corps Sample. For the 75 Marine Corps organizations included in the review, the actual CWT reported was 25.84 days, excluding transactions for customers above the organizational level, compared to the 31.58 days reported to DoD. Based on our statistical sample, we are 90 percent confident the actual CWT was between our projected low of 21.85 days and the high of 26.83 days. See Appendix D for the Quantitative Plan and Statistical Analysis and Interpretation for the Marine Corps.

We noted that the difference between our sample results and those of the Marine Corps was attributed primarily to delays in closing transactions, and although the Marine Corps Logistics Command's CWT calculations included requisitions for customers above the organizational level, it did not materially affect the CWT calculation.

The CWT Committee's business rules did not intend CWT transactions to apply to customers above the organizational level. The Marine Corps Logistics Command should report the CWT days only for transactions initiated at the organizational level.

Measuring the Link Between CWT and Operational Availability of Equipment

DoD officials could not link CWT to operational readiness because the CWT business rules included all requisitions in the CWT calculations, and did not separate the high priority requisitions from the routine requisitions. DoD 4000.25-1-M, "Military Standard Requisitioning and Issue Procedures," dated April 28, 2004, provides overall guidance for preparing and submitting requisitions along with using priority designators. A requisition is an order for materiel initiated by an organization and transmitted to a supply source. The requisition provides the supply source with various types of information, such as the priority designator and required delivery date, some of which describe how important the item is to mission readiness.

Composite CWT Data Related to Operational Readiness. When the CWT Committee established business rules for measuring CWT, it directed the Services to collect readiness rates and CWT measurements each month and compare them. The business rules also said that DoD would not require readiness reports until the Services and the CWT Committee discussed the Services' findings and the relationship between readiness and CWT. The Army and Marine Corps routinely collected and analyzed readiness and CWT rates, but did not discuss or provide their correlation analysis to DoD officials because the CWT performance by itself does not show true operational readiness. Other areas such as maintenance are key in defining the operational readiness of equipment.

The Army and Marine Corps processed about 2.45 million high priority and routine requisitions from July through September 2005. Each requisition had a two-position numeric code from 01 through 15 that designates the priority of competing requisitions. The priority designator alerts the supply organization on the urgency of the requested materiel. Customers use a priority designator code of 01 as the highest level of priority and 15 as the lowest priority code. In addition, if a particular item is causing a piece of equipment to be "not mission capable," the customer can further code the requisition to show that the item is affecting readiness because the equipment cannot perform its assigned operational mission.

The Services are aware of readiness and criticality of parts at the maintenance organizations; however, the CWT business rules as currently structured do not require the maintenance organization to report requisitions that affect the operational readiness of equipment. The CWT business rules require the Services to report the number of days to fill the requisition; they do not require the Services to report the CWT separately by priority designator, which would more closely link CWT performance to readiness.

Table 2 shows that of the 1,782 requisitions in our judgmental sample in the fourth quarter of FY 2005, 901, or approximately 51 percent, were high priority requisitions that directly affected the operational readiness of the equipment. We selected all requisitions with a high priority code of 01 to 03.

Table 2. CWT Sample of High Priority Requisitions

	Closed Requisitions Sampled	High Priority
Army	1,093	693
Marine Corps	689	208
Total	1,782	901

The average CWT days for the Army's 693 high priority transactions was approximately 18 days, or 3 days more than the DoD goal of 15 days. For the Marine Corps' 208 high priority transactions closed during the fourth quarter of FY 2005, the average CWT was 23 days, or 8 days more than the DoD goal.

If DoD officials revised the CWT business rules to define high priority requisitions and required the Services to submit the transactions separately to the Defense Automated Addressing Service Center, Defense Logistics Agency, calculating CWT days for high priority requisitions would enable DoD to see how CWT performance links to readiness and allow officials to monitor trends and anomalies that directly affect the operational readiness of equipment.

Tracking Trends in Customer Wait Time

The CWT metric did not provide the Office of the Secretary of Defense with the ability to measure whether the length of time to satisfy a requisition had an effect on operational readiness. The established CWT business rules require the Services to compute and report the number of days it takes them to satisfy a requisition. Consequently, DoD officials only tracked changes in CWT days and trends from one Military Department to another. The CWT metric did not allow DoD officials to measure the effects of CWT performance on the operational readiness of equipment. Knowing whether CWT had increased or decreased from one year to the next did not provide DoD officials with data on how effective the supply system was in supporting the warfighter and whether resources were being used effectively. By defining and collecting CWT information on high priority requisitions, DoD will be able to track CWT trends and determine their effect on readiness.

Conclusion

GAO identified the process for managing the supply chain as one of the high-risk areas that needed to function in the most economical, efficient, and effective manner possible. Since 2000, DoD officials established a CWT Committee and published instructions and business rules for CWT as one effort to correct the long-standing problems associated with supply chain management. However, although these actions and CWT information were generally accurate, the CWT Committee did not link CWT days with readiness or measure the effectiveness of supply chain management. DoD needs to take additional steps to link CWT performance to the operational readiness of equipment and the Marine Corps needs to submit only critical transactions initiated at the organizational level in its CWT.

Recommendations, Management Comments, and Audit Response

Revised Recommendation. As a result of the Principal Assistant Deputy Under Secretary of Defense (Logistics and Materiel Readiness) comments, we revised Recommendation 2. to include only transactions at the organization level in calculating the Customer Wait Time.

1. We recommend that the Deputy Under Secretary of Defense, Logistics and Materiel Readiness:

a. Revise the business rules for customer wait time to define high priority requisitions, and require the Services to submit high priority transactions separately.

b. Collect each Services's operational readiness rates and customer wait times and analyze them to determine the effect of customer wait time on readiness.

Principal Assistant Deputy Under Secretary of Defense (Logistics and Materiel Readiness) Comments. The Principal Assistant Deputy Under Secretary of Defense (Logistics and Materiel Readiness) responding for the Deputy Under Secretary of Defense (Logistics and Materiel Readiness) concurred with Recommendation 1.a. He stated that the Services submit high priority transactions separately and the Deputy Under Secretary of Defense (Logistics and Materiel Readiness) built a drill down tool that defines high priority requisitions as those that have an urgent need. The tool is now fully operational.

The Principle Assistant Deputy Under Secretary partially concurred with Recommendation 1.b. He stated that while CWT and operational readiness are two of the Department's key metrics, CWT for spares is a small piece of what affects operational readiness. Therefore, determining the effect of CWT on readiness in not feasible. However, CWT and operational readiness will continue to be a key DoD metric and each will be analyzed as part of the overall logistics performance metrics framework.

Audit Response. Although the Principle Assistant Deputy Under Secretary's comments concurred with Recommendation 1.a. and partially concurred with Recommendation 1.b., his planned action was not responsive. Concerning Recommendation 1.a., the Principle Assistant Deputy Under Secretary did not address revising the business rules to define high priority requisitions. For Recommendation 1.b., the Principle Assistant Deputy Under Secretary stated that determining the effect of CWT on readiness is not feasible. However, he stated that CWT and operational readiness will be analyzed as part of the overall logistics performance metric. His response did not indicate how his analysis would tie CWT to operational readiness. We request that the Principal Assistant Deputy Under Secretary of Defense (Logistics and Materiel Readiness) Principle provide additional comments on the recommendation by August 9, 2007.

Director of Supply and Maintenance, Office of the Deputy Chief of Staff, G-4, Department of the Army Comments. We received unsolicited comments from the Director of Supply and Maintenance, Office of the Deputy Chief of Staff. The Director of Supply and Maintenance comments concurred with Recommendation 1.a. and 1.b. Concerning Recommendation 1.a., she stated that the Army already submits high priority requisitions separately from routine requisitions, but does not measure CWT metrics by separating them. The Army measures Authorized Stockage Level by routine fill rates and high priority fill rates and is developing a process to determine readiness drivers and establish appropriate goals. Concerning Recommendation 1.b., the Director of Supply and Maintenance, stated that the Army is reviewing the feasibility of using fill rates by weapon system. However, the challenge is that weapon systems and repair parts can apply to several platforms, and the Army's information system cannot track CWT by platforms.

2. We recommend that the Marine Corps Logistics Command submit only transactions initiated at the organization level for calculating customer wait time.

Principal Assistant Deputy Under Secretary of Defense (Logistics and Materiel Readiness) Comments. Although not required to comment on Recommendation 2., the Principle Assistant Deputy Under Secretary stated that CWT is the time it takes from customer order to receipt regardless of who fills the order. Therefore, both retail and wholesale transactions are included in the metrics.

Audit Response. Concerning Recommendation 2., we agree with the Principal Assistant Deputy Under Secretary's comments that CWT is the time it takes from customer order to customer receipt, regardless of who fills the order. Accordingly, we made appropriate changes to the finding and Recommendation 2. to clarify the point. However, some transactions that the Marine Corps included in its CWT calculations were transactions for replenishing stock and not for filling orders generated by maintenance organizations. These customers are responsible for maintaining assigned equipment including inspecting, servicing, lubricating, adjusting, and replacing parts, minor assemblies, and subassemblies. To be consistent with the other Military Departments, the Marine Corps should remove these transactions from the CWT metric. This action would provide DoD officials with uniform results for measuring CWT. We recognize that, although the Marine Corps Logistics Command's CWT calculations included requisitions for stock replacement, it did not materially affect the CWT calculation at the DoD level. We request that the Principal Assistant Deputy Under Secretary of Defense (Logistics and Materiel Readiness) provide additional comments on the revised recommendation by August 9, 2007.

Marine Corps Logistics Command Comments. We did not receive management comments from the Marine Corps Logistics Command. We request that the Marine Corps provide comments on the final report by August 9, 2007.

Appendix A. Scope and Methodology

We reviewed policy guidance and documentation dated from March 2000 through February 2006 related to CWT. Specifically, we reviewed the Deputy Secretary of Defense Reform Initiative Directive Number 54, "Logistics Transformation Plans," March 23, 2000, and DoD Instruction 4140.61, "Customer Wait Time and Time Definitive Delivery," December 14, 2000.

To accomplish our specific objectives, we met with officials from the Office of the Assistant Deputy Under Secretary of Defense (Supply Chain Integration), the Joint Staff (J4), the Transportation Command, the Office of the Deputy Chief of Staff for Logistics, (Army), the U.S. Army Forces Command, the U.S. Army Special Operations Command, the Installation Management Agency, the U.S. Army Aviation and Missile Command, the Army contractor responsible for compiling and reporting the overall CWT statistics to DoD, the Marine Corps Office of Installations and Logistics, the Marine Corps Logistics Command, and the Marine Corps Forces, Pacific.

We reviewed the adequacy of management controls and management's self assessment over supply chain management. Specifically, we reviewed the methodology used to compute and report CWT days for the Army and Marine Corps organizations included in the audit. We limited our review to the Army and Marine Corps organizations because the Army processed the highest number of CWT transactions during FY 2005, approximately 76 percent, and the Marine Corps reported the highest number of CWT in days. Specifically, we reviewed the procedures for computing and reporting CWT.

We obtained information on Army CWT transactions from the Army contractor responsible for compiling, computing, and reporting the actual CWT days. We obtained similar information for the Marine Corps from the Marine Corps Logistics Command, Albany, Georgia.

Using statistical sampling techniques, we randomly selected 1,300 CWT transactions reported by the 25 Army organizations (five installations) and 800 transactions reported by the 80 Marine Corps organizations (see Appendix B) to determine whether they followed established CWT business rules and accurately computed and reported the CWT days to DoD officials. We selected the 25 Army organizations based on the total number of CWT transactions submitted during the fourth quarter of FY 2005. For example, we identified the five installations that processed the greatest number of CWT transactions. Within each of the installations, we selected the five organizations that processed the greatest number of CWT transactions. We selected the Marine Corps organizations at random without regard to the number of transactions processed. (See Appendix D for the sampling plan.)

After our site visits, one of the selected Army and five Marine Corps organizations deployed to Iraq and therefore were excluded from the sample. To maintain the integrity of the sample, we dropped two of the Army organizations from our sample because they did not maintain hard copies of the receipt documents and we could not validate the accuracy of those transactions.

We performed this audit from June 2005 through January 2007 in accordance with generally accepted government auditing standards. We collected the information for the audit through meetings, e-mails, and briefings with Office of the Secretary of Defense and Army and Marine Corps officials or their support contractors.

Scope Limitations. The audit included closed CWT transactions processed during the fourth quarter of FY 2005 for selected Army and Marine Corps organizations based in the continental United States. The audit also included open CWT transactions obtained from the Army and Marine Corps as of January 9, 2006, and December 6, 2005, respectively. We did not include any organizations outside the continental United States in the sample. Our review of the reporting process covered the FYs 2002 through 2005.

Use of Computer-Processed Data. We relied on data from the Army's Integrated Logistics Analysis Program, the Marine Corps Standard Accounting Supply System, and the Marine Corps Equipment Information Tool, together with data generated from the Defense Automated Addressing System Center and the Defense Logistics Agency's Distribution Standard System Materiel Release Order Tracking System. We did not perform a formal reliability assessment of these systems. However, nothing came to our attention as a result of specified procedures that caused us to doubt the reliability of the computer processed data.

Use of Technical Assistance. Personnel from the Quantitative Methods Division, Office of the Inspector General assisted in developing the statistical sampling analysis presented in this report.

Government Accountability Office High-Risk Area. The Government Accountability Office has identified several high-risk areas in DoD. This report provides coverage of the DoD Supply Chain Management high-risk area.

Prior Coverage. No prior coverage has been conducted on the CWT during the last 5 years.

Appendix B. Army and Marine Corps Organizations Included in the Sample

Army

Installation	Unit Identification Codes (UIC)	Organizations Visited or Contacted
Fort Bragg	W36RJP	XR W0U3 IMMD DS GS
	W81Y2D	XR 0507 CS GRP HHC SPT GP CORP
	W912UD	XR W0H9 ELE OLR BR MAINT FT BRAGG
	W36BY6	XR 0407 CS BN CO B FIELD MNT
	W801DU	XR 0503 OD CO REAR DET
Fort Campbell	W912UF	AVN RESET PGM DOL FT CAMPBELL
	W912UA	AVN RESET PGM ALMD DOL FT CAMPBELL
	W813G1	SR W0U4 AVN LOG DIV
	W80QGZ	XR 0160 AV BN 01 CO F AVN MAIT
	W34GM2	XR W0U4 INSTL MAINT DOL
Fort Hood	W91JKB	XR 0003 HQ HHC REAR RECON 2
	W907TL	XR 0001 AV BDE REAR DET
	W91K8Q	XR 0003 HQ HHC REAR RECON 5
	W91K8P	XR 0003 HQ HHC REAR RECON 4
	W45CMN	XR W0VC MAINT DIV
Fort Irwin	W80021	XR W6F7 EQUIPMENT SUPPORT GP
	W91HJD	XR 0249 CS BN CO C HVY MAINT
	W90BX2	XR W6F7 BULK EQUIPMENT SUPPORT
	W81R7D	XR W6F7 THEATER SUPPORT COMMAND
	W91CQR	XR 0221 AR BN 01 HHT TANK
Fort Polk	W81T77	XR W0VF DOL MAINTENANCE DIV
	W81X4U	XR W0DA FLRC-POLK
	W42CXC	XR W0VF DOL MAINTENANCE DIV
	W81T78	XR W0VF DOL MAINTENANCE DIV
	W68VMM	XR 0094 CS BN BSB FD MNT CO B

Appendix B. Army and Marine Corps Organizations Included in the Sample (cont'd)

Marine Corps

Installation	UIC	Organizations Visited or Contacted
29 Palms	M01480	VMU 1 MACG 38
	M11204	HQ CO 7th MAR 1st MARDIV
	M20470	3D Light Armored Recon BN
	M21410	1st Tank BN 1st MAR Division
	M21825	CO D 3rd ASLT Amphib BN
29 Palms	M28339	CSSG 1 MRC RIP MCAGCC
	M28349	CSSB 7 MCAGCC
	M35031	I L EEAP ESD MCAGCC
	M35033	I L EEAP ESD MCAGCC
	MMT100	MCCES Supply
	M11230	1st BN 7th Marines
Albany	M94700	Maintenance Center Code 884
	M99933	Fleet Spt Div ALB Code 5863
	M98573	Supply Chain Mgmt Ctr Code E 573
Barstow	M93636	Maintenance Center
	M95000	Base Supply Warehouse 8
Blout Island	MMV104	NSE
	MMV200	MCMC General Account
	MMV222	MPS 2 Organic Account
	MMV400	MPF SMU Using Activity
	M92502	Blount Island Port T E
Bronx	M21680	Svc CO 6th Communication BN AFRC
Detroit	M14160	1st Battalion 24th Marines
Lejeune	M12009	2D Recon BN 2D MARDIV II MEF
	M12170	2d Marine Division, 2nd Battalion, 8th Marines
	M12210	2d Marine Division, 1st Battalion, 2nd Marines
	M12400	2d Combat Engineer BN 2ND MARDIV
	M20181	CE 26th MEU Det A
	M20197	MSSG 22
	M20198	MSSG 26 26TH MEU Det A
	M21310	8th Engineer Support BN
	M21420	2nd Tank Battalion 2ND MARDIV
	M21810	2nd Assault Amphibian BN 2ND MARDIV
	M27121	2nd Maintenance BN
	M27125	Supply Forward Maint A CO

Appendix B. Army and Marine Corps Organizations Included in the Sample (cont'd)

Installation	UIC	Organizations Visited or Contacted
Lejeune	M27127	Ordnance Maintenance CO
	M27128	General Support Maintenance CO
	M27131	2d Transportation Support BN
	M28351	2d FORECON CO II MHG II MEF
	M93135	2d Supply BN (CTEP)
	MMFAF5	2d Maint BN Reparable Issue Point
	MML100	2d Supply BN ISSA
	M00039	MAG 39 HQ MCP
Pendleton	M00830	MASS 3MACG 38
	M11001	1st MARDIV HQTRS BN(REIN)
Pendleton	M11009	1st Reconnaissance Battalion
	M11104	HQCO Supply 1st Marines
	M11110	3rd BN 5th MAR Supply
	M11120	1st BN 1st Marines
	M11130	Receiving Officer Bldg 2246
	M11140	1st Battalion 4th MAR
	M11154	5th Marines 1st Marine Division
	M11180	2nd BN 5th Marines
	M11303	HQ BTRY 11th Marines
	M11310	1st BN 11th Marines
	M11340	5th BN 11th Marines
	M11400	1st Combat Eng BN 1st MARDIV FMFPAC
	M14030	4th LARBN 4TH MARDIV REIN FMS USMCR MCRTC
	M20192	3rd Civ Affairs Grp MARFORRES
	M20195	MSSG 11 PSC
	M20196	MSSG 15 Organic Supply
	M20310	15th MEU CE
	M20371	I MEF HQ Group
	M20374	MC SOCOM Det One
	M20450	1st Light Armored Recon BN
	M21300	7th Engr Spt BN
	M21610	1st Anglico 1 MEF
	M21670	9th Comm BN FMFPAC
	M21820	3d AABN 1st Marine Division
	M28310	1st Supply BN 1st MLG
	M28321	1st Maint BN Supply
	M28326	MTMCO 1st Maint BN 1st FSSG
	M28327	OMC 1st Maint BN 1st MLG

Appendix B. Army and Marine Corps Organizations Included in the Sample (cont'd)

Installation	UIC	Organizations Visited or Contacted
Pendleton	M28331	1st Maint BN 1st FSSG MARFORPAC
Pendleton	M28333	CSSB 1 1st FSSG
	M28350	1st Force Recon BN
	M97111	Med Log CO 1st Sup BN
	MMC100	SMU General Acct 1st Sup BN 1st FSSG
	MMC199	Training Allowance Pool 1st Sup BN 1st FSSG
	MMFAG8	SMU Reparable Issue Point 1st Sup BN

Appendix C. Customer Wait Time Process, Sample Methodology, and Results

Army CWT Computation and Sample. We reviewed the Army process for computing CWT days and selected a sample of closed customer requisitions for the fourth quarter of FY 2005 to determine the accuracy of the CWT information reported. See Appendix B for a list of Army and Marine Corps organizations included in the sample. See Appendix D for the Quantitative Plan and Statistical Analysis and Interpretation for the Army and the Marine Corps.

Army Process for Computing CWT Days. The Army follows the CWT Committee's business rules established in 2000. Officials stated that Army organizations compute CWT days by subtracting the request date from the receipt date of the materiel. The CWT calculation includes only retail supply transactions recorded in the Army's standard retail supply system, which includes detailed information on both request and receipt transactions. The Army consolidates the information from the retail supply system each day and transmits it to the Integrated Logistics Analysis Program, which is a database that includes information on requisitions, maintenance, financial transactions, and document histories. Using the requisition dates with the receipt dates that it records, the Integrated Logistics Analysis Program computes the monthly CWT and transmits the information to the Defense Automated Addressing System Center. For this audit, we considered transactions to be open if there was a valid requisition in the Integrated Logistics Analysis Program but no receipt. We considered a transaction to be closed if there was a request and a receipt recorded in the Integrated Logistics Analysis Program.

Accuracy of Army Closed Transactions. To verify the accuracy of the reported CWT, the Integrated Logistics Analysis Program provided us with a database of the 1,370,924 transactions it processed during the fourth quarter of FY 2005. We selected five installations that processed the largest number of CWT transactions. Within each of the installations, we selected five organizations that processed the greatest number of processed CWT transactions. We statistically selected 1,300 requisitions representing about $1.5 million in spare and repair parts. We subsequently eliminated one organization from our sample because it was being deployed to Iraq. Two organizations were eliminated because Army contractors did not retain the documentation for the 150 requisitions. These organizations did not represent the entire population and therefore we eliminated them from the sample, reducing it to 1,150. Thus, the remaining 22 organizations processed 142,481 requisitions during the fourth quarter of FY 2005. During our site visits, we obtained copies of the available receipt documents,[3] and compared the date recorded on the requisitions with the date recorded on the receipt document. We then compared the results to the CWT days in the Integrated Logistics Analysis Program.

[3] The receipt documents reviewed included a DD Form 1348-1A, Issue Release/Receipt Documents, a signed receipt document from the transportation carrier, or a packing slip annotated with the date that the materiel was received by the organization.

Appendix C. Customer Wait Time Process, Sample Methodology, and Results (cont'd)

Of the 1,150 requisitions, 57 did not have receipts because the organizations could not locate the documentation. For 894 of the 1,093 transactions with receipts, the CWT days were correct, but the remaining 199 transactions were not processed in a timely manner.

As a result, the average CWT days for the 199 transactions for the 22 organizations were 15.08 days instead of the reported 15.90 days. Our calculation recognizes the correct computation of CWT days for all 1,093 transactions. Although the days reported to DoD were incorrect, the methodology that the organizations used was in accordance with the CWT Committee's business rules.

Table C-1 shows our sample results projected to the entire population of the 22 organizations and 142,481 transactions.

Table C-1 Projection of Army Closed Requisitions

Requisitions recorded correctly	95,228
Requisitions not recorded timely	41,026
Requisitions could not be located	6,228
Total	**142,481**[4]

Marine Corps CWT Computation and Sample. We reviewed the Marine Corps process for computing CWT days and selected a sample of closed requisitions for the fourth quarter FY 2005.

Marine Corps Process for Computing CWT Days. The Marine Corps logistics personnel compute CWT days by subtracting the request date from the receipt date of the materiel. The CWT calculation includes retail supply requisitions recorded in the Marine Corps standard accounting supply system and wholesale transactions processed through the Defense Automatic Addressing System Center. Wholesale requisitions are filled by the Inventory Control Points and not the local supply organization. Each month, using an "ad hoc" CWT program, the Marine Corps Logistics Command filters out specific requisitions, such as non-Marine Corps requisitions, and computes the CWT days. It submits the data to the Defense Automatic Addressing System Center and posts the CWT information on the Marine Corps Logistics Command's Web site.

[4] The total is off by one due to rounding.

Appendix C. Customer Wait Time Process, Sample Methodology, and Results (cont'd)

Accuracy of Marine Corps Closed Requisitions. The Marine Corps Logistics Command in Albany, Georgia, is responsible for populating and maintaining the CWT requisition database. For the fourth quarter of FY 2005, the Marine Corps reported a total of 51,062 requisitions in its monthly CWT database. Using statistical sampling techniques, we randomly selected 800 requisitions from the database to verify the accuracy of the reported CWT days and visited 8 different installations representing 80 organizations. We compared the CWT days reported to DoD with the materiel receipt date. We eliminated five organizations because they were deployed to Iraq, which reduced the sample size to 773 requisitions.

Of the 773 requisitions, we validated that the Marine Corps correctly computed CWT days for 16 transactions, incorrectly computed 673 transactions, and could not locate support documentation for 84 transactions. Also, our calculations of CWT days for the Marine Corps requisitions showed that the average CWT reported by the 75 organizations, excluding the 264 wholesale replenishment requisitions, was 25.84 days and not the reported 31.58 days.

Table C-2 shows our sample results projected to the entire population of the 75 organizations and the 51,062 transactions.

Table C-2. Projection of Marine Corps Closed Requisitions

Requisitions recorded correctly	1,255
Requisitions not recorded timely	44,258
Requisitions could not be located	5,549
Total	**51,062**

Appendix D. Quantitative Plan and Statistical Analysis and Interpretation for the Army and Marine Corps

Army

Objective. The audit objective was to evaluate DoD implementation of a standard for customer wait time.

Population. We used the five Continental United States installations (Fort Hood, Fort Campbell, Fort Bragg, Fort Polk and Fort Irwin) that had the largest number of transactions. Within each installation we used the five UICs with the largest number of transactions. The population initially consisted of 218,399 transactions, but we removed two of the UICs that were out of scope, leaving a population of 142,481 requisitions and 22 UICs.

Measures. The attribute measure of correct or incorrect was used to indicate whether the date of receipt in the system was the same as the date of the signed receipt.

Parameters. We used a 90 percent confidence level for the statistical estimate.

Sample Plan. We used a two-stage stratified sample design. Stage 1 consisted of the five installations with the highest number of requisitions. Stage 2 consisted of the five UICs within each installation that had the highest number of requisitions, except for Fort Hood which had three UICs. We used a simple random sample without replacement to select requisitions from each of the UICs, and we determined appropriate sample sizes for each UIC based on our calculations, the what-if analysis we performed, and our professional judgment. We used SAS version 9.1 random number generator to select the random samples.

Appendix D. Quantitative Plan and Statistical Analysis and Interpretation for the Army and Marine Corps (cont'd)

Installation	UIC	Sample(n)	Population (N)
Bragg/CWT-1	W36RJP	75	8,827
Bragg/CWT-2	W81Y2D	50	3,526
Bragg/CWT-3	W912UD	50	2,829
Bragg/CWT-4	W36BY6	50	2,370
Bragg/CWT-5	W801DU	50	1,920
Campbell/CWT-1	W912UF	75	16,734
Campbell/CWT-2	W912UA	50	7,583
Campbell/CWT-3	W813G1	50	3,376
Campbell/CWT-4	W80QGZ	50	2,725
Campbell/CWT-5	W34GM2	50	1,946
Hood/CWT-2	W907TL	50	32,910
Hood/CWT-4	W91K8P	50	18,258
Hood/CWT-5	W45CMN	50	17,310
Irwin/CWT-1	W80021	50	4,981
Irwin/CWT-2	W91HJD	50	1,429
Irwin/CWT-3	W90BX2	50	1,363
Irwin/CWT-4	W81R7D	50	1,312
Irwin/CWT-5	W91CQR	50	1,285
Polk/CWT-1	W81T77	50	1,953
Polk/CWT-2	W81X4U	50	4,646
Polk/CWT-3	W42CXC	50	2,352
Polk/CWT-4	W81T78	50	2,846
Total	**22 UICs**	**1,150**	**142,481**

Initially, we selected 24 UICs from which we selected a simple random sample. Two of the UICs at Fort Hood, W91JKB and W91KBQ, were anomalies because of contractor changes and the record retention policy and did not fairly represent overall Army organizations that we visited. Therefore we removed the two UICs from the sample and population, leaving 22 UICs.

Statistical Analysis and Interpretation

Transactions Recorded Correctly. Based on the audit results of 660 errors that we provided to Quantitative Methods Division analysts, we calculated the following statistical projections.

Appendix D. Quantitative Plan and Statistical Analysis and Interpretation for the Army and Marine Corps (cont'd)

	90 Percent Confidence Interval		
Requisitions recorded correctly	Lower Bound	Point Estimate	Upper Bound
Error rate	64.3%	66.8%	69.3%
Errors	91,684	95,228	98,771

We are 90 percent confident that the error rate is between 64.3 percent and 69.3 percent, and we are 90 percent confident that the total number of errors is between 91,684 and 98,771.

Requisitions not recorded timely. Based on the audit results of 433 errors that the audit team provided to Quantitative Methods Division analysts, we calculated the following statistical projections.

	90 Percent Confidence Interval		
Requisitions not recorded timely	Lower Bound	Point Estimate	Upper Bound
Error rate	27.0%	28.8 %	30.5%
Errors	38,532	41,026	43,519

We are 90 percent confident the error rate is between 27 percent and 30.5 percent and we are 90 percent confident the total number of errors is between 38,532 and 43,519.

Requisitions that could not be located. Based on the audit results of 57 errors that the audit team provided to Quantitative Methods Division analysts, we calculated the following statistical projections.

	90 Percent Confidence Interval		
Requisitions that could not be located	Lower Bound	Point Estimate	Upper Bound
Error rate	2.6%	4.4%	6.2%
Errors	3,665	6,228	8,791

We are 90 percent confident that the error rate is between 2.6 percent and 6.2 percent and we are 90 percent confident that the total number of errors is between 3,665 and 8,791.

Appendix D. Quantitative Plan and Statistical Analysis and Interpretation for the Army and Marine Corps (cont'd)

Scan date equal to or greater than hand receipt date. Based on the audit results of 894 errors that we provided to Quantitative Methods Division analysts, we calculated the following statistical projections.

	90 Percent Confidence Interval		
Scan date equal to or greater than hand receipt date	Lower Bound	Point Estimate	Upper Bound
Error rate	75.4%	77.8%	80.2%
Errors	107,469	110,883	114,298

We are 90 percent confident that the error rate is between 75.4 percent and 80.2 percent, and we are 90 percent confident that the total number of errors is between 107,469 and 114,298.

Calculated Army CWT days. We calculated the following descriptive statistics based on the reported Army CWT days in the 142,481 population.

Calculated Army CWT days in population	**Days**
Mean	15.9 days

Mean audited CWT days. Based on the audit results provided to Quantitative Methods Division analysts by the audit team, we calculated the following statistical projections.

	90 Percent Confidence Interval		
Mean audited CWT days	Lower Bound	Point Estimate	Upper Bound
Mean days	13.49	15.08	16.67

We are 90 percent confident that the mean days are between 13.49 and 16.67.

Appendix D. Quantitative Plan and Statistical Analysis and Interpretation for the Army and Marine Corps (cont'd)

Mean Army CWT days. Based on the audit results provided to Quantitative Methods Division analysts by the audit team, we calculated the following statistical projections.

	90 Percent Confidence Interval		
Mean Army CWT days	Lower Bound	Point Estimate	Upper Bound
Mean days	13.66	15.25	16.83

We are 90 percent confident that the mean days are between 13.66 and 16.83.

Mean audited CWT days for Issue Priority Group items. Based on the audit results that the audit team provided to Quantitative Methods Division analysts, we calculated the following statistical projections.

	90 Percent Confidence Interval		
Mean audited CWT days for Issue Priority Group items	Lower Bound	Point Estimate	Upper Bound
Mean days	14.96	16.96	18.97

We are 90 percent confident that the mean days are between 14.96 and 18.97.

Marine Corps

Objective. The audit objective was to evaluate DoD implementation of a standard customer wait time.

Population. The population consisted of closed order transactions for the fourth quarter of FY 2005 for Marine Corps Continental United States locations. The population consisted of 52,845 transactions at 53 locations.

Appendix D. Quantitative Plan and Statistical Analysis and Interpretation for the Army and Marine Corps (cont'd)

Measures. The attribute measure of correct or incorrect was used to indicate whether the date of receipt was the same as the date of the signed receipt.

Parameters. We used a 90 percent confidence level for the statistical estimate.

Sample Plan. We used a two-stage sample design. Stage 1 was a probability proportional to transaction size randomly selected by closed transactions with replacement. A total of 40 locations were randomly selected and 8 locations were unique. Stage 2 consisted of a simple random sample without replacement of 20 for each of the 40 locations. We determined appropriate sample sizes for each location based on our calculations, the what-if analysis we performed, and our professional judgment. We used SAS version 9.1 random number generator to select the random samples.

Appendix D. Quantitative Plan and Statistical Analysis and Interpretation for the Army and Marine Corps (cont'd)

Location	Population Transactions at Location	Population Transactions at Sampled Locations	Total Sample Population Sample Unit	Unique Population Sample Unit Sampled	Sampled Transactions
PENDLETON	18,247	18,247	20	1	400
LEJEUNE	10,492	10,483	4	2	80
BARSTOW	7,072	7,072	4	3	80
ALBANY	7,017	7,017	4	4	80
29 PALMS	3,280	3,280	3	5	60
BLOUNT IS	2,502	2,502	3	6	60
SAN DIEGO	418	0	0	0	0
EL TORO	415	0	0	0	0
YUMA	414	0	0	0	0
PORTLAND	291	0	0	0	0
ALAMEDA	264	0	0	0	0
BRIDGETON	261	0	0	0	0
DETROIT	203	203	1	7	20
CHERRY PT	194	0	0	0	0
CHARLOTTE	168	0	0	0	0
TUSTIN	168	0	0	0	0
BEAUFORT	134	0	0	0	0
NEW ORLEANS	129	0	0	0	0
VIRGINIA BEACH	122	0	0	0	0
MINNEAPOLIS	114	0	0	0	0
FT LEWIS	108	0	0	0	0
ENCINO	104	0	0	0	0
LONG BEACH	92	0	0	0	0
BUCKLEY ANG	86	0	0	0	0
NO NAME	81	0	0	0	0
SANTA ANA	69	0	0	0	0
KANSAS CITY	67	0	0	0	0
MARIETTA	50	0	0	0	0
HIGHWOOD	46	0	0	0	0
BRONX	36	36	1	8	20
SAN ANTONIO	34	0	0	0	0
WYOMING	32	0	0	0	0
MIRAMAR	22	0	0	0	0
MT CLEMENS	20	0	0	0	0
WICHITA	19	0	0	0	0
CHICAGO	17	0	0	0	0
BALTIMORE	13	0	0	0	0
NEWPORT NEWS	13	0	0	0	0
RED BANK	7	0	0	0	0
FT WORTH	5	0	0	0	0
BROOK PARK	4	0	0	0	0
NEW RIVER	4	0	0	0	0
GARDEN CITY	3	0	0	0	0
W PALM BEACH	3	0	0	0	0
WILLOW GROVE	2	0	0	0	0
PHILADELPHIA	1	0	0	0	0
SAN BRUNO	1	0	0	0	0
WESTOVER AFB	1	0	0	0	0
Total	**52,845**	**48,840**	**40**	**8**	**800**

Appendix D. Quantitative Plan and Statistical Analysis and Interpretation for the Army and Marine Corps (cont'd)

Statistical Analysis and Interpretation

Requisitions recorded correctly. Based on the audit results that the audit team provided to Quantitative Methods Division analysts, we calculated the following statistical projections.

	90 Percent Confidence Interval		
Requisitions recorded correctly	Lower Bound	Point Estimate	Upper Bound
Error rate	1.40%	2.38%	3.35%
Errors	739	1,255	1,771

We are 90 percent confident that the error rate is between 1.40 percent and 3.35 percent, and we are 90 percent confident that the total number of errors is between 739 and 1,771.

Requisitions not recorded timely. Based on the audit results that the audit team provided to Quantitative Methods Division analysts, we calculated the following statistical projections.

	90 Percent Confidence Interval		
Requisitions not recorded timely	Lower Bound	Point Estimate	Upper Bound
Error rate	80.76%	83.75 %	86.74%
Errors	42,680	44,258	45,835

We are 90 percent confident that the error rate is between 80.76 percent and 86.74 percent, and we are 90 percent confident that the total number of errors is between 42,680 and 45,835.

Requisitions that could not be located. Based on the audit results that the audit team provided to Quantitative Methods Division analysts, we calculated the following statistical projections.

	90 Percent Confidence Interval		
Requisitions not located	Lower Bound	Point Estimate	Upper Bound
Error rate	7.99%	10.50%	13.01%
Errors	4,221	5,549	6,877

Appendix D. Quantitative Plan and Statistical Analysis and Interpretation for the Army and Marine Corps (cont'd)

We are 90 percent confident that the error rate is between 7.99 percent and 13.01 percent, and we are 90 percent confident that the total number of errors is between 4,221 and 6,877.

Mean audited CWT days. Based on the audit results provided to Quantitative Methods Division analysts by the audit team, we calculated the following statistical projections.

	90 Percent Confidence Interval		
Mean audited CWT days	Lower Bound	Point Estimate	Upper Bound
Mean days	21.85	24.34	26.83

We are 90 percent confident the mean days are between 21.85 and 26.83.

Appendix E. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics
    Director, Acquisition Resources and Analysis
Under Secretary of Defense (Comptroller)/Chief Financial Officer
    Deputy Chief Financial Officer
    Deputy Comptroller (Program/Budget)
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Department of the Navy

Naval Inspector General
Auditor General, Department of the Navy

Department of the Air Force

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Combatant Command

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Director, Defense Logistics Agency

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Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Homeland Security and Governmental Affairs
House Committee on Appropriations

Appendix E. Report Distribution (cont'd)

House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Oversight and Government Reform
House Subcommittee on Government Management, Organization, and Procurement, Committee on Oversight and Government Reform
House Subcommittee on National Security and Foreign Affairs, Committee on Oversight and Government Reform

Principal Assistant Deputy Under Secretary of Defense (Logistics and Materiel Readiness) Comments

OFFICE OF THE UNDER SECRETARY OF DEFENSE
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ACQUISITION,
TECHNOLOGY
AND LOGISTICS

MEMORANDUM FOR PROGRAM DIRECTOR, READINESS AND OPERATIONS SUPPORT

THROUGH: DIRECTOR, ACQUISITION RESOURCES AND ANALYSIS 4/10/07

SUBJECT: Response to DODIG Draft Report D2005-D000LD-0129, "Report on Uniform Standards for Customer Wait Time

As requested, I am providing responses to the recommendations contained in the subject report. The DODIG recommendations and the DoD response to each of the recommendations are provided below:

DoDIG Recommendation 1: We recommend that the Deputy Under Secretary of Defense, Logistics and Materiel Readiness:

a. Revise the business rules for customer wait time to define high priority requisitions, and require the Services to submit high priority transactions separately.

DoD Response: Concur. The Military Services submit high priority transactions separately, and the DUSD(L&MR) has built a drill down tool that defines high priority requisitions as those that have Urgency of Need equal to "A." This drill tool is now fully operational.

b. Collect each Services' operational readiness rates and customer wait times and analyze them to determine the effect of customer wait time on readiness.

DoD Response: Partially concur. While customer wait time and operational readiness are two of the Department's key metrics, customer wait time for spares is a small piece of what effects operational readiness. Therefore, determining the effect of customer wait time on readiness is not feasible. However, customer wait time and operational readiness will continue to be two of the Department's key metrics and each will be analyzed as part of the overall logistics performance metrics framework.

DoDIG Recommendation 2: We recommend that the Marine Corps Logistics Command submit only retail transactions for use in calculating customer wait time.

Final Report Reference

Revised report text on pages i, 5,8,and 9 and recommendation to the Marine Corps Logistics Command.

DoD Response: Nonconcur. Customer wait time is the time it takes from customer order to customer receipt, regardless of who fills the order. Therefore, both retail and wholesale transactions are included in the customer wait time metric.

My point of contact, Mrs. Debra Bennett, can be reached at 703-604-0098 X137 or debra.bennett@osd.mil if you have any questions regarding this response.

for Alan F. Estevez
Principal Assistant Deputy Under of
Defense (Logistics and Materiel Readiness)

Department of Army Comments

DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF, G-4
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DALO-SUS

06 MAR 2007

MEMORANDUM THRU DEPUTY CHIEF OF STAFF, G-4, 500 ARMY PENTAGON, WASHINGTON, D.C. 20310

FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL, 400 ARMY NAVY DRIVE, ARLINGTON, VA 22202

SUBJECT: Report on Uniform Standards for Customer Wait Time (Project No. D2005-D000LD-0129.000)

1. This is in response to the Department of Defense Inspector General (DODIG) draft report Audit of Customer Wait Time (Enclosure).

2. The Office of the Deputy Chief of Staff, G-4 has reviewed subject draft report and concurs with the following comments.

a. DODIG recommendation: The Deputy Under Secretary of Defense, Logistics and Materiel Readiness:

(1) Revise the business rules for Customer Wait Time (CWT) to define priority requisitions, and require the Services to submit high priority transactions separately. Army G-4 response: The U.S. Army already submits high priority requisitions separately from routine requisitions, but the U.S. Army does not currently measure CWT metrics by separating high priority and routine requisitions.

(2) The U.S. Army is now working a process to target inventory stockage based on readiness drivers. Currently, we measure our Authorized Stockage Level (ASL) performance by routine fill and high priority fill rates. We are now in the process of developing a manner to look at our fill rate for readiness drivers and establishing appropriate goals.

b. DoDIG recommendation: Collect each Service's operational readiness rates and customer wait times and analyze them to determine the effect of customer wait time on readiness.

Army G-4 response: Army G-4 concurs this is a good recommendation. We are reviewing the feasibility of looking at fill rates by weapon system. Our challenge is that we have weapon systems and repair parts that apply to several platforms and our information systems are not set-up to differentiate in a manner that allows us to track CWT against specific platforms.

DALO-SUS
SUBJECT: Report on Uniform Standards for Customer Wait Time (Project No. D2005-D000LD-0129.000)

3. Point of contact is Mrs. Renee' Mosher, at (703) 692-9561, or e-mail: renee.mosher@hqda.army.mil.

Encl

SARAH FINNICUM
Director of Supply and
Maintenance

2

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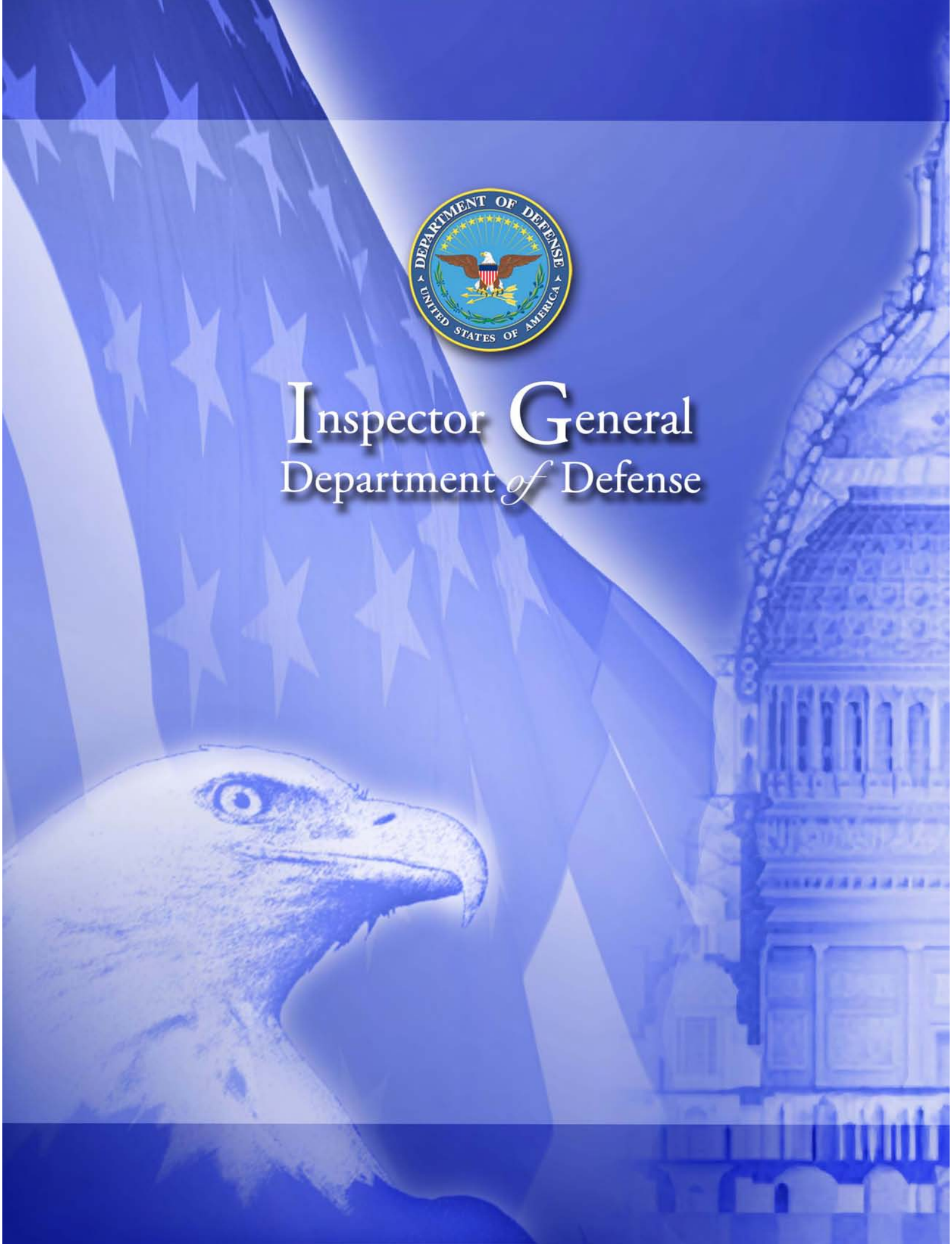
James Hartman



Inspector General
Department of Defense