Audit Report

YEAR 2000 REPORTING FOR DEFENSE FINANCE AND ACCOUNTING SERVICE CLEVELAND CENTER SYSTEMS

Report No. 98-112 April 17, 1998

Office of the Inspector General
Department of Defense

Additional Information and Copies

To obtain additional copies of this audit report, contact the Secondary Reports Distribution Unit of the Analysis, Planning, and Technical Support Directorate at (703) 604-8937 (DSN 664-8937) or FAX (703) 604-8932 or visit the Inspector General, DoD Home Page at: www.dodig.osd.mil.

Suggestions for Audits

To suggest ideas for or to request future audits, contact the Planning and Coordination Branch of the Analysis, Planning, and Technical Support Directorate at (703) 604-8908 (DSN 664-8908) or FAX (703) 604-8932. Ideas and requests can also be mailed to:

OAIG-AUD (ATTN: APTS Audit Suggestions)
Inspector General, Department of Defense
400 Army Navy Drive (Room 801)
Arlington, Virginia 22202-2884

Defense Hotline

To report fraud, waste, or abuse, contact the Defense Hotline by calling (800) 424-9098; by sending an electronic message to Hotline@DODIG.OSD.MIL; or by writing to the Defense Hotline, The Pentagon, Washington, D.C. 20301-1900. The identity of each writer and caller is fully protected.

Acronyms

ADS	Automated Disbursing System
ASD(C3I)	Assistant Secretary of Defense (Command, Control, Communications and Intelligence)
BEBS	Book Entry Bond System
CIO	Chief Information Officer
DFAS	Defense Finance and Accounting Service
DISA	Defense Information Systems Agency
DIST	Defense Integration Support Tools
DRAS	Defense Retiree and Annuitant Pay System
EC/EDI	Electronic Commerce/Electronic Data Interchange
FIRS	Financial Inventory Reporting System
GAO	General Accounting Office
IG	Inspector General
OMB	Office of Management and Budget
POC	Point of Contact
USD(C)	Under Secretary of Defense (Comptroller)
Y2K	Year 2000

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

April 17, 1998

MEMORANDUM FOR DIRECTOR, DEFENSE FINANCE AND ACCOUNTING SERVICE CLEVELAND CENTER

SUBJECT: Audit Report on Year 2000 Reporting for Defense Finance and Accounting Service Cleveland Center Systems (Report No. 98-112)

We are providing this report for your information and use. This is one in a series of reports we plan to issue. The purpose of the reports is to identify areas of concern related to Year 2000 efforts at the Defense Finance and Accounting Service. We previously issued a draft report concerning other Year 2000 initiatives at the Defense Finance and Accounting Service Cleveland Center. In addition, other reports have been issued regarding DoD Year 2000 efforts.

Because this report contains no findings or recommendations, written comments were not required. However, we received written comments from the Defense Finance and Accounting Service, Director, Information and Technology, requesting a minor change, clarifying an area of responsibility, and commenting on the classification of the Defense Integration Support Tools database (see Part III, Management Comments). We have incorporated this information into the final report.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Ms. Kimberley Caprio, Audit Program Director, at (703) 604-9151 (DSN 664-9139), e-mail kcaprio@dodig.osd.mil, or Mr. Geoffrey Weber, Acting Audit Project Manager, at (703) 604-9151 (DSN 664-9151), e-mail gweber@dodig.osd.mil. See Appendix E for the report distribution. The audit team members are listed inside the back cover.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. 98-112 **April 17, 1998**
(Project 7FG-0043.01)

Year 2000 Reporting for Defense Finance and Accounting Service Cleveland Center Systems

Executive Summary

Introduction. This is one of a series of reports being issued by the Inspector General, DoD, in an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts to address the Year 2000 computing challenge.

Information technology systems have typically used two digits to represent the year, such as "97" to represent 1997, to conserve electronic data storage and reduce operating costs. With the two-digit format, the Year 2000 would be represented as "00," making it indistinguishable from 1900. As a result of this ambiguity, computers and associated systems and application programs that use dates to calculate, compare, and sort information could generate incorrect results when working with years after 1999. To track and assess the progress in addressing Year 2000 (Y2K) problems, DoD issued the Y2K Management Plan. The Y2K Management Plan, which provides the overall strategy for resolving issues, had five phases: awareness, assessment, renovation, validation, and implementation.

During the five phases, the initial DoD Y2K Management Plan required that the DoD Components register their systems in the Defense Integration Support Tools database. The Defense Integration Support Tools database provided DoD-wide information on hardware platforms, operating systems, application languages, communications, and interfaces. Managers were to use this information to track and monitor Y2K compliance for mission-critical and other designated systems.

On February 4, 1998, the Acting Director, Assistant Secretary of Defense (Command, Control, Communications and Intelligence) issued a memorandum classifying the Defense Integration Support Tools database as Secret. Because of this designation, the Defense Finance and Accounting Service cannot access the database to update and correct system information. The Assistant Secretary of Defense (Command, Control, Communications and Intelligence) is expected to issue a revised DoD Y2K Management Plan and clarify the method to be used for sharing Year 2000 related system information in the near future.

Audit Objectives. The overall audit objective was to determine the effectiveness of the DFAS initiatives for addressing the Y2K computer problem. For this report, we evaluated whether DFAS:

- entered all required data elements into the Defense Integration Support Tools for each system, and

- verified that information in the Defense Integration Support Tools database was consistent with information in the DFAS quarterly reports.

Audit Results. To assist DFAS in taking prompt action, we briefed management on the reporting requirements and reliability of data in the Defense Integration Support Tools database. DFAS personnel responsible for updating the system information had not entered all required data elements for each system into the Defense Integration Support Tools database. DFAS also had not verified that information in the Defense Integration Support Tools database is consistent with the information in the DFAS quarterly reports. DFAS initiated actions to address these issues; however, because of the recent classification of the Defense Integration Support Tools database as Secret, these actions have been suspended until the appropriate reporting mechanism is determined.

Management Comments. Because management actions were responsive to suggestions made during the review of the Defense Integration Support Tools database, the draft report contained no recommendations and written comments were not required. However, the DFAS Director, Information and Technology, provided comments to the draft report. The comments requested a minor change, a clarification, and addressed the impact of recent access restrictions to the Defense Integration Support Tools database on their continued implementation of actions to address issues we identified in the draft report. For management's comments to the draft report see Part III, Management Comments.

Audit Response. We incorporated management's comments for a minor change and clarification. No further comments are required. When the appropriate mechanism for sharing the Year 2000 information is agreed upon and established, DFAS must continue to ensure that information relating to DFAS systems is accurate and complete.

Table of Contents

Executive Summary i

Part I - Audit Results

Introduction 2
Audit Background 2
Audit Objective 4
DFAS Reporting Requirements for the DIST Database 5

Part II - Additional Information

Appendix A. Audit Process
Scope and Methodology 14
Management Control Program 15
Appendix B. Summary of Prior Coverage 16
Appendix C. IG, DoD, Memorandum to DFAS on DIST Y2K Initiatives 17
Appendix D. DFAS Comments on IG, DoD, Memorandum 22
Appendix E. Report Distribution 25

Part III - Management Comments

DFAS Management Comments 28

Part I - Audit Results

Introduction

This audit report, which is one in a series of reports on the Defense Finance and Accounting Service (DFAS) Year 2000 (Y2K) initiatives, discusses our review of the Defense Integration Support Tools (DIST) database. We previously issued a report on other Y2K initiatives at the DFAS Cleveland Center (see Appendix B for details of the report).

Audit Background

DFAS is responsible for DoD finance and accounting functions and the information technology used to perform these functions. Each year, DFAS pays approximately 4 million military and civilian personnel, 2 million retirees and annuitants, and 23 million invoices to contractors and vendors. DFAS quarterly reports on Y2K track 196 systems. Of these, the DFAS Cleveland Center reports on 76 systems. Y2K issues can affect every aspect of the DFAS finance and accounting mission because DFAS relies heavily on computer systems to carry out its operations.

The cause of the Y2K problem is that automated systems typically use two digits to represent the year, such as "97" to represent 1997, to conserve electronic data storage and reduce operating costs. With the two-digit format, however, the Y2K is indistinguishable from 1900. As a result of this ambiguity, computers and associated systems and application programs that use dates to calculate, compare, and sort information could generate incorrect results when working with years after 1999. The calculation of Y2K dates is further complicated because Y2K is a leap year. Computer systems and applications must recognize February 29, 2000, as a valid date. Unless the problem is corrected, these automated systems will fail. Therefore, senior management must monitor progress closely. To maintain awareness of potential areas of concern, both the Office of Management and Budget (OMB) and DoD require that the status of Y2K compliance be reported frequently.

Because of the potential impact on Government computer operations, the General Accounting Office (GAO) identified Y2K as a high-risk program. DoD and DFAS also identified Y2K as an uncorrected material weakness in their Annual Statements of Assurance for FYs 1996 and 1997.

OMB Reporting Requirements. In May 1997, OMB issued its "Memorandum on Computer Difficulties Due to the Y2K -- Progress Reports." The memorandum requires that Y2K progress reports be issued to Congress and the public. It also requires the heads of selected Government agencies to report quarterly on the status of Y2K efforts, with the initial report due on May 15, 1997. Each agency is required to report on mission-critical systems, including the number of systems that are Y2K compliant, being replaced and repaired, and scheduled to be retired.

DoD Reporting Requirements. As the DoD Chief Information Officer (CIO), the Assistant Secretary of Defense (Command, Control, Communications and

Intelligence) (ASD[C3I]) issued a memorandum on March 12, 1997, "Y2K Refined Reporting Requirements for DoD." The memorandum establishes quarterly reporting requirements for Y2K assessment and progress throughout DoD. Reports are intended to show the status of DoD Y2K efforts and are used by the CIO to oversee DoD Y2K efforts and fulfill OMB reporting requirements at the DoD level. The memorandum, which also establishes criteria for reporting mission-critical systems in the DIST database, is published as an appendix to the DoD Y2K Management Plan.

DoD Y2K Management Plan, Version 1.0, April 1997. The DoD Y2K Management Plan provided the overall DoD strategy and guidance for taking inventory, prioritizing, fixing and retiring systems, and monitoring progress in resolving Y2K issues. Each DoD Component is responsible for awareness, assessment, renovation, validation, and implementation. The DoD Y2K Management Plan described the five-phase Y2K management process and designated the DIST database as the official repository for data on the DoD Components' automated systems.

The Five-Phase Management Process. Each of the five phases listed below represents a major Y2K program activity or segment. Target completion dates range from December 1996 through March 1, 1999.

- Phase I - Awareness. Define the Y2K problem and gain executive-level support and sponsorship. Establish a Y2K program team and develop an overall strategy. Ensure that everyone in the organization is fully aware of the Y2K problem. Target completion date: December 1996.

- Phase II - Assessment. Assess the impact of Y2K on the enterprise. Identify core business areas and processes, take inventory, analyze systems that support the core business areas, and prioritize their conversion or replacement. Develop contingency plans to handle data exchange issues, lack of data, and bad data. Identify and secure the necessary resources. Target completion date: June 1997.

- Phase III - Renovation. Convert, replace, or eliminate selected platforms, applications, databases, and utilities. Modify interfaces. Target completion date: September 1998.

- Phase IV - Validation. Test, verify, and validate converted or replaced platforms, applications, databases, and utilities. In an operational environment, test the performance, functionality, and integration of converted or replaced platforms, applications, databases, utilities, and interfaces. Target completion date: January 1999.

- Phase V - Implementation. Implement converted or replaced platforms, applications, databases, utilities, and interfaces. If necessary, implement contingency plans for data exchange. Target completion date: March 1, 1999.

DIST Database. The DIST database, maintained by the Defense Information Systems Agency (DISA), contains data on certain automated systems used by DoD Components, including data on hardware platforms,

operating systems, application languages, communications, and interfaces. The DIST database provides DoD-wide information that managers can use to track and monitor Y2K compliance for mission-critical and other designated systems.

On February 4, 1998, the Acting Director, ASD(C3I) issued a memorandum classifying the Defense Integration Support Tools database as Secret. As a result of this designation, access to the DIST database for update and query purposes was restricted by the Defense Information Systems Agency. Following this action, DFAS stated that they no longer had the ability to enter and correct system information in the DIST database. The former DFAS Deputy Director for Information Management stated that DFAS had recently devoted a significant level of effort in attempting to enter and correct information within the DIST. He stated that while DFAS had an internal database to track its system inventory, other components would be severely affected because of the lack of an alternative means for tracking their system inventories and related Y2K information. Further, the Secret classification has prevented other users from querying system information that may be critical in the coordination of Y2K efforts.

On March 2, 1998, the Assistant Inspector General for Auditing issued a memorandum to ASD(C3I) requesting clarification on future intentions regarding system information within the DIST database. The memorandum also expressed concern about the elimination of a potentially critical source of system information from the user community. The ASD(C3I) is expected to address access to the DIST database and alternative methods for disseminating systems information in the near future. Regardless of the ultimate decision on what database to use for Y2K status information, the observations made in this report on data integrity remain valid.

Audit Objective

The overall audit objective was to determine the effectiveness of DFAS initiatives to address the Y2K computer problem. For this report, we evaluated whether DFAS:

- entered all required data elements into the DIST database for each system, and

- verified that information in the DIST database was consistent with information in the DFAS quarterly reports.

We did not review the management control program as it relates to the overall audit objective because DFAS and DoD identified Y2K as an uncorrected material weakness in their Annual Statements of Assurance for FYs 1996 and 1997. See Appendix A for a discussion of the audit scope and methodology.

DFAS Reporting Requirements for the DIST Database

Information on the DFAS Cleveland Center systems, as reported in the DIST database, was not complete, accurate, and consistent with the DFAS Cleveland Center quarterly reports. The inaccuracies occurred because DFAS did not:

- enter all required data elements into the DIST database for each system, and
- verify that system information reported in the DIST database was consistent with the DFAS Cleveland Center quarterly reports.

As a result, the DIST database was unreliable for making decisions about Y2K issues. The lack of data integrity could increase the potential for system failures because internal and external users rely on the information reported, regardless of which database is used as the repository.

Y2K Reporting Requirements

DFAS system managers are required to report Y2K information on a quarterly basis. Specifically, system information should be reported in the DIST database, or any successor database, and in the DFAS quarterly reports to the Director, Information and Technology. The information in both documents should be accurate and consistent. The DFAS Annual Statement of Assurance for FY 1996 stated that the DIST database would be validated and updated for completeness and accuracy by March 1997.

Reporting Requirements for DIST Database

Purpose of DIST Database. The DIST database was the initial official repository for the DoD inventory of information systems. The DIST database was established to support a DoD-wide requirement for data collection and reporting and decision support. Y2K information is reported in the DIST database in order to ensure a thorough and successful transition to Y2K compliance for all DoD systems. System managers used the DIST database to track the progress of other systems and obtain system-related Y2K information. Information in the DIST database also assisted the Under Secretary of Defense (Comptroller) (USD[C]) in prioritizing systems for Y2K and budget purposes.

DoD has issued guidance for DIST reporting. Specifically, the USD(C) and the ASD(C3I) issued a memorandum and the DoD Y2K Management Plan provided guidance.

Joint Memorandum. On November 5, 1996, the USD(C) and the ASD(C3I), jointly issued a memorandum, "System Interfaces, Data Exchanges, and Defense Integration Support Tools." The memorandum required DoD Components to ensure that all information systems are registered in the DIST database.

DoD Y2K Management Plan. DoD Components are required to report quarterly to the DIST database and encouraged to report significant progress whenever it occurs. According to the DoD Y2K Management Plan, April 1997, DoD Components must report all systems in the DIST database that are:

- mission-critical systems,
- migratory systems,
- legacy systems,
- systems with a total cost of $2 million per year, and
- systems that interface with a system that meets any of the above criteria.

Quarterly Reporting Requirements

DFAS reports quarterly on the Y2K status of all its systems. DoD and DFAS managers use the quarterly reports to monitor Y2K progress and decide where to allocate resources. Each DFAS Center prepares a quarterly report summarizing the status of its systems. The quarterly reports are updated, then reviewed and approved by the DFAS Center Director or the Deputy Director, DFAS. The reports are then submitted to the DFAS Y2K Project Manager, who consolidates the data into a single report. The consolidated report, which tracks progress at the DFAS level, is reviewed by the Director, Information and Technology. Subsequently, the Director, Information and Technology, issues a less comprehensive Y2K quarterly report to ASD(C3I) for inclusion in the DoD consolidated Y2K quarterly report to OMB.

GAO Report on DIST Database

The GAO issued Report No. AIMD-97-112 (OSD Case No. 1395), "Defense Computers: Improvements to DoD Systems Inventory Needed for Year 2000 Effort," August 13, 1997. The report states that DoD Y2K

efforts will be at risk of failure if immediate attention is not given to ensuring that the DIST is reliable, complete, and accurate. In response to the report, both ASD(C3I) and DISA took immediate action. Specifically,

- the ASD(C3I) stated that DoD planned to perform a statistical sampling of the DIST database to validate its accuracy; and

- DISA instituted a data quality program for the DIST database, which includes purging duplicate and obsolete data and assisting users in completing system entries.

These actions were intended to enable the DIST database to become an effective tool for the oversight and day-to-day management of DoD Y2K efforts. Beginning in August 1997, DoD Components were also encouraged to work with the DIST Help Desk to ensure that the correct information for each system was in the DIST database, and were invited to attend DIST Working Group meetings to identify ways to improve the database.

Accuracy of DFAS Cleveland Center Reporting

We reviewed the 71 systems reported by the DFAS Cleveland Center in the DIST database as of December 1997. We also reviewed the DFAS October 1997 quarterly report on Y2K submitted to the Director, Information and Technology. Information in the DIST database for the DFAS Cleveland Center was not complete, accurate, and consistent with information in the DFAS Cleveland Center's quarterly reports. Specifically, for 70 of the 71 systems reported by the DFAS Cleveland Center in the DIST database, the required data elements had not been completed. In addition, for 12 of the 71 systems identified, information in the DIST database was not consistent with information in the DFAS Cleveland Center's quarterly reports.

Consistency of Number of Systems Reported On. The DFAS Cleveland Center reported 76 finance and accounting systems in its October 1997 quarterly report on Y2K to the Director, Information and Technology. For the same period, the DFAS Cleveland Center reported 71 systems in the DIST database. The variations occurred because:

- One system is being developed as Y2K compliant and is not ready to be reported in the DIST database.

- One system did not meet the criteria for being reported in the DIST database.

- Three systems were reported in the DIST database as being majority owned by another DoD Component.

For DFAS management, these variations are acceptable.

Adequacy of Required Elements Reported in DIST Database. For each system, up to 249 data elements can be reported in the DIST database. DISA has designated 48 of these data elements as required for each system. The 48 data elements relate to hardware, software, electronic commerce/electronic data interchange (EC/EDI), cost, current phase of Y2K compliance, Y2K compliance strategy, and status of interfaces with other systems. From this information, a system manager can produce a report on "Minimum Required Data Elements Completeness," showing the status of Y2K compliance for each system, to facilitate oversight of the agency's systems in the DIST database.

Completeness of Required Data Elements in DIST Database. DFAS did not complete the required data elements for the December 1997 DIST database, according to the "Minimum Required Data Elements Completeness" report. Specifically, only 1 system for the DFAS Cleveland Center completed all 48 of the required data elements.

The "Minimum Required Data Elements Completeness" report categorized the 48 data elements into 8 categories. For each of the eight categories, the report identified the extent to which DFAS has completed the required data elements for that category. According to the December 1997 report,

- 70 of 71 systems completed the required data elements for description, mission, and organization and POC,

- 26 of 71 systems have not completed the required data elements for hardware,

- 57 of 71 systems have not completed the required data elements for software,

- 65 of 71 systems have not completed the required data elements for EC/EDI,

- 67 of 71 systems have not completed the required data elements for interfaces with other systems, and

- 58 of 71 systems have not completed the required data elements for Y2K compliance.

The following are examples of systems reported in the DIST database during December 1997 for which the required data elements are incomplete. (Appendix C provides a list of incomplete required data elements for the systems we reviewed.)

Automated Disbursing System (ADS). ADS is an interim migratory system identified by DFAS as one of its top 20 mission-critical systems. ADS produces vouchers for disbursements and collections, issues payments, processes returned payments, prepares Internal Revenue Service Forms W-2 (Wage and Tax Statements), and reports accounting

information. DFAS had identified the system in the DIST database; however, they had not completed the required data elements for hardware, software, EC/EDI, and interfaces with other systems.

Book Entry Bond System (BEBS). BEBS provides electronic safekeeping of bonds purchased by active duty members until a member requests that the bonds be mailed to an address. DFAS had identified the system in the DIST database; however, they had not completed the required data elements for software, EC/EDI, interfaces with other systems, and Y2K compliance.

Comparison of DIST Database and DFAS Quarterly Reports

Along with the DFAS quarterly reports to ASD(C3I), the DIST database must be kept up-to-date. The DIST database should contain the same information as the DFAS quarterly report. We compared the December 1997 DIST database and the October 1997 DFAS quarterly report and identified discrepancies between the two sources of information. Although the reporting dates differ, the information from each source should be complete and consistent.

Reliability of Information in DIST Database. We selected two DIST data elements, current Y2K phase and Y2K compliance strategy, for comparing the DIST database to the DFAS Cleveland Center quarterly report. The current Y2K phase and compliance strategy[1] were chosen from those identified in the DoD Y2K Management Plan. For all systems at the DFAS Cleveland Center, we compared the phases and strategies reported in the DFAS Cleveland Center quarterly report for October 1997 to those reported in the DIST database as of December 1997. For 12 of the 71 systems we reviewed, the DFAS Cleveland Center's quarterly report did not show the same information as the DIST database for the current Y2K phase, Y2K compliance strategy, or both. The following are 2 examples of the 12 systems:

- **Defense Retiree and Annuitant Pay System.** The DIST database reported the Y2K compliance strategy as a combination; the DFAS Cleveland Center's quarterly report showed the Y2K compliance strategy as field expansion.

[1] Compliance strategies identify the procedure to be implemented to make a system Y2K compliant. The field expansion strategy increases the size of the date field, generally from a two-digit year to a four-digit year, and the procedural code and sliding window strategies derive the correct century based on the two-digit year. The combination strategy uses more than one of the three strategies to accomplish Y2K initiatives.

• **Financial Inventory Reporting System.** The DIST database reported the Y2K compliance strategy as combination;[2] the DFAS Cleveland Center's quarterly report did not designate a Y2K compliance strategy.

Impact of Reporting Discrepancies. Users of the DIST database relied on it to help them determine the approach for Y2K-related system changes for their systems. Other users need to know the current Y2K phase and Y2K compliance strategy to determine the timing and extent of work that may be required for their systems. The USD(C) also used the DIST database to prioritize systems for Y2K compliance and budgeting. Therefore, this information needs to be accurate so that other system changes can be properly coordinated. Because the current Y2K phase or compliance strategy (or both) are reported incorrectly, internal DFAS users and external users are relying on inaccurate information, which may lead to delays, system failure, or funding shortages.

Management Actions Taken

On December 22, 1997, the IG, DoD, sent a memorandum to the Director, Information and Technology, on issues concerning the DFAS Cleveland Center and the DIST database (see Appendix C). The Director, Information and Technology, responded in a memorandum on January 16, 1998 (see Appendix D). The Deputy Director agreed with the issues identified, and discussed actions under way to correct deficiencies in the DIST database for all DFAS systems as well as the DFAS Cleveland Center reported systems.

The corrective actions will be performed in three phases, using an approach developed by DFAS. The three-phase plan is as follows:

• DFAS will perform a complete review of all systems registered in the DIST database. The review will identify and eliminate systems that do not belong to DFAS. The milestone for completion was February 10, 1998.

• The DFAS Centers responsible for the systems will identify and supply the missing data in the DIST database. The milestone for completion was the end of February 1998.

• DFAS will gather the missing data and work with the DIST Help Desk to enter the information into the DIST database. The milestone for completion was the end of March 1998.

[2] In the Inspector General (IG), DoD, memorandum to the DFAS Cleveland Center on DIST Y2K initiatives, the compliance strategy was erroneously identified as procedural code strategy (see Appendix C).

The Director, Information and Technology, also stated that DFAS has eliminated any discrepancies between the DIST database and the DFAS quarterly report related to Y2K phases and strategy; however, the corrective action was not described.

Conclusion

We commend DFAS for responding to the issues identified in this report and for taking prompt action. The three-phase approach used by DFAS should greatly improve the reliability and consistency of information in the DoD database and the DFAS quarterly reports. The corrective actions should also reduce the risk that DoD and DFAS managers will rely on incorrect or inaccurate data, and should reduce the risk of system failure. Therefore, we are not making recommendations in this report. However, DFAS needs to ensure that the planned actions are completed and that all DFAS Centers are informed of the status of ongoing actions. Further, while at least three systems reported in the database are not majority owned by the DFAS Cleveland Center, DFAS and all of the DFAS Centers need to report the correct Y2K status for their minority-owned systems to ensure accurate reporting by the majority owner.

Because of the classification of the DIST database, DFAS cannot complete the three-phased plan to correct system information in the DIST and address the specific deficiencies outlined in this report. However, DFAS must continue to ensure that if the DIST is made available, or if an alternative mechanism is established to track system information for Y2K purposes, that the information relating to DFAS systems is accurate and complete.

Part II - Additional Information

Appendix A. Audit Process

Scope and Methodology

Work Performed. This is one of a series of reports being issued by the IG, DoD, in an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts to address the Y2K computing challenge. For a list of audit projects addressing this issue, see the Y2K World Wide Web page on the IGNET (http://www.ignet.gov/).

This report was based on audit field work performed at the DFAS Cleveland Center and its Financial Systems Activity from April through December 1997.

We reviewed the DFAS Cleveland Center's DIST database and quarterly Y2K report, submitted in October 1997 to the Director, Information and Technology. Based on the DoD Y2K Management Plan, we evaluated the reliability of the report. We also evaluated the accuracy and completeness of information in the quarterly report.

We interviewed personnel in the Office of the ASD(C3I) who issue guidance on Y2K reporting, collect Y2K information from the DoD Components, and submit the information to OMB. We also interviewed DFAS personnel who are responsible for Y2K quarterly reports. We interviewed the DFAS Y2K project manager; the Director, DFAS Cleveland Center; the Y2K POC at the DFAS Cleveland Center; and system managers in functional and technical areas. We also corresponded with the DIST Help Desk.

We reviewed 71 systems reported on by the DFAS Cleveland Center. For our review, we used the October 1997 DFAS quarterly reports and the Defense Integration Support Tools (DIST) database. Of the 71 systems we reviewed, only 1 system had completed all of the DIST required data elements for the DIST database, and 12 systems reported the phase or strategy (or both) incorrectly.

Use of Computer-Processed Data. We did not use computer-processed data or statistical sampling procedures to perform this audit.

Use of Technical Assistance. We met with technical experts in our Analysis, Planning, and Technical Support Directorate to discuss issues relating to interface agreements, testing plans, and software development and maintenance.

Audit Type, Dates, and Standards. We performed this financial-related audit from April through December 1997 in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the IG, DoD.

Contacts During the Audit. We visited or contacted individuals and organizations within DoD. Further details are available on request.

Management Control Program

We did not review the management control program because DFAS and DoD identified Y2K as an uncorrected material weakness in their Annual Statements of Assurance for FYs 1996 and 1997.

Appendix B. Summary of Prior Coverage

The General Accounting Office and the Inspector General, DoD, have conducted multiple reviews related to Y2K issues. General Accounting Office reports can be accessed over the Internet at http://www.gao.gov. Inspector General, DoD, reports can be accessed over the Internet at http://www.dodig.osd.mil.

Appendix C. IG, DoD, Memorandum to DFAS on DIST Y2K Initiatives

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

DEC

MEMORANDUM FOR DEPUTY DIRECTOR, INFORMATION MANAGEMENT
DEPUTATE, DEFENSE FINANCE AND ACCOUNTING SERVICE

SUBJECT: Review of Defense Finance and Accounting Service (DFAS) Year 2000 Initiatives

Our review of the DFAS Year 2000 Initiatives was based on survey and audit field work performed at the DFAS Indianapolis and Cleveland Centers and Financial Systems Activities from August through December 1997. This memorandum reports the results from our review of the Defense Integration Support Tool (DIST) as it relates to Year 2000. We used guidance contained in the DoD Year 2000 Management Plan, Version 1.0 April 1997 to evaluate the overall effectiveness of DFAS Year 2000 efforts. The review also considered and evaluated the use of DFAS regulations and industry's best practices, as needed.

We attended the DFAS Year 2000 Summit with you and Mr. Amlin, Acting Director, DFAS, on December 15, 1997. During the Summit, we briefed a preliminary issue concerning the DIST completeness and reliability. Per your request, we have drafted an assessment of the DIST.

Due to the nature of Year 2000 efforts, it is our intent to identify potential areas of concern so that DFAS Management may address these issues in a timely manner. Management is requested to provide comments by January 16, 1997. Comments should describe actions taken and completion dates of the actions. We may include these and any additional issues in a draft report at a later date. If there are any questions, please contact Mr. Geoffrey Weber, Acting Project Manager, at (703) 604-9151 or DSN 664-9151 or Ms. Kimberly Caprio, Program Director at (703) 604-9139 DSN 664-9139.

F. Jay Lane
Director
Finance and Accounting Directorate

Defense Integration Support Tools

The Defense Integration Support Tools (DIST) is the official repository for DoD's inventory of systems for DoD Components. Registration of DoD Systems in the DIST is mandatory, according to the November 5, 1996, Memorandum "System Interfaces, Data Exchanges, and Defense Integration Support Tools," signed by the Under Secretary of Defense (Comptroller) and the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence). DoD Components are required to report quarterly to the DIST database. Although the minimum reporting requirement is quarterly, DoD Components are encouraged to report significant progress when it occurs.

According to the DoD Year 2000 Management Plan, August 1997, DoD Components must report "ALL" systems which meet or exceed the following criteria in the DIST for Y2K purposes:

- A mission critical system,
- A migration system,
- A legacy system,
- A system with a $2M total cost per year, and,
- A system that interfaces with a system that meets any one of the above criteria.

The reason for reporting in the DIST is to ensure a thorough and successful transition to Y2K compliance for all DoD systems. By reporting the systems in the DIST, the Comptroller can determine the importance of the system as it relates to Year 2000 and provide financial support after prioritization of the systems. However, if a system is not in the DIST then the Comptroller may assume the system is not worth supporting.

The DIST provides a list of minimum data required to be entered on a system. There are 48 required data elements for each system entered which relate to hardware, software, EC/EDI, Y2K, cost, phase, strategy, interfaces, and several others. The "Minimum Required Data Elements Completeness" report provides the percentage of completeness in the areas of description, mission, organization/point of contact, hardware, software, EC/EDI, interfaces, Y2K, and the total of completeness for each system. During our review of the report we found that DFAS-Cleveland had not completed the minimum required data elements for each system.
Part of DFAS's requirements for reporting quarterly to ASD (C3I) is keeping the DIST

up-to-date. DFAS develops their own quarterly reporting requirements which reflect Y2K details and produce a spreadsheet for distribution of these details. According to DFAS's instructions, the information in the quarterly report should also be updated in the DIST. We compared the phase and strategy reported in DFAS's internal Quarterly Report dated October 1997, to the phase and strategy reported in the DIST as of December 4, 1997 for all DFAS-Cleveland. The phase reported relates to the phases identified in the DoD Management Plan for Year 2000, as does the strategy reported (field expansion, sliding window, or procedural code). During our review we found that the DFAS quarterly report and the DIST did not correctly report the phase and strategy for 12 of the 70 DFAS-Cleveland systems reviewed.

DIST Minimum Required Elements

We completed a review of 70 DFAS-Cleveland systems from the DIST report. Our review determined that DIST information for the 70 systems was not complete and reliable. Specifically, because

o only 1 DFAS-Cleveland system provided all of the DIST minimum required data elements;

o 60 DFAS-Cleveland systems provided 50-99% of the DIST minimum required data elements, and;

o 9 DFAS-Cleveland systems provided 0-49% of the DIST minimum required data elements.

The DFAS-Cleveland systems were missing information in the areas of hardware (25 of 70 systems), software (56 of 70 systems), EC/EDI (64 of 70 systems), interfaces (66 of 70 systems), Y2K (57 of 70 systems).

Specific examples of missing elements are as follows:

o ADS is missing information on hardware, software, EC/EDI, and interfaces.

o BEBS is missing information on software, EC/EDI, interfaces, and Y2K.

o DFRRS is missing information on hardware, software, EC/EDI, and interfaces.

o DRAS is missing information on software.

o DWAS is missing information on software, EC/EDI, and interfaces.

o IFAS is missing information on EC/EDI and interfaces.

o PRODS is missing information on hardware, software, EC/EDI, interfaces, and Y2K.

o ROTSI is missing information on hardware, software, EC/EDI, interfaces, and Y2K.

o SS is missing information on hardware, software, EC/EDI, and interfaces.

o XDISB is missing information on hardware, software, EC/EDI, interfaces, and Y2K.

DIST Phase and Strategy Reporting

The following identifies the discrepancies between the DIST and DFAS internal quarterly report related to the phase and strategy:

o DRAS - DIST reports the strategy as Combination while the DFAS internal quarterly report shows the strategy as Field Expansion.

o RIMS - DIST reports the phase as Assessment while the DFAS internal quarterly report shows the phase as Renovation.

o UADPS-SP-E&F - DIST reports the strategy as Field Expansion while the DFAS internal quarterly report shows the strategy as Sliding Window.

o UADPS-Level II SF - DIST reports the system as being Replaced while the DFAS internal quarterly report shows the phase as Renovation and the strategy as Sliding Window.

o PWCMIS - DIST reports the strategy as Combination while the DFAS internal quarterly report does not designate a strategy.

o FIRS - DIST reports the strategy as Procedural Code while the DFAS internal quarterly report does not designate a strategy.

o UADPS-G03/G06 - DIST reports the system as being Replaced while the DFAS internal quarterly report shows the phase as Renovation and the strategy as Sliding Window

o MFCS - DIST reports the strategy as Combination while the DFAS internal quarterly report shows the strategy as Sliding Window.

o SAC 207 - DIST reports the strategy as Combination while the DFAS internal quarterly report does not designate a strategy.

o RRMIIP - DIST reports the system as Retiring while the DFAS internal quarterly report shows the system as being Replaced.

o CIRS does not report phase or strategy in either the DIST or the DFAS internal quarterly report.

o UPRIM does not report phase or strategy in the DIST; however, the DFAS internal quarterly report states the system will be replaced.

Appendix D. DFAS Comments on IG, DoD, Memorandum

DEFENSE FINANCE AND ACCOUNTING SERVICE

1931 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VA 22240-5291

DFAS-HQ/S

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: Response to the DoD IG Review of Defense Finance and Accounting Service Year 2000 Initiatives and Use of the Defense Integrated Support Tool

The attached outlines Defense Finance and Accounting Service (DFAS) action initiatives for Year 2000 and the Defense Integrated Support Tools (DIST). These initiatives will address the areas of concern as outlined by your findings.

DFAS management is aware of the importance of the Year 2000 issue and the registration of DFAS sponsored systems in the DIST.

Any questions concerning this issue can be directed to my point of contact, Richard Farrow, DFAS-HQ/S, 703-607-3967.

for Robert E. Burke
Deputy Director for
Information Management

Attachment
as stated

DEFENSE FINANCE AND ACCOUNTING SERVICE
ACTION INITIATIVES FOR
YEAR 2000
AND
DEFENSE INTEGRATED SUPPORT TOOL

In regards to the issue of the completeness of data registered in the DIST for DFAS systems, there is an ongoing initiative with the DIST Help Desk to address this problem. The following phased action items are being conducted by DFAS.

PHASE ONE: This phase calls for a complete review of all systems that are registered in the DIST as sponsored or edited by DFAS. This exercise will identify and ultimately eliminate many systems that have been erroneously assigned to DFAS. This action will be completed by February 10, 1998. In addition, system reports will be generated for all systems currently tagged as DFAS sponsored or edited. These reports have already been generated.

PHASE TWO: This phase will address each system by the responsible DFAS Center and determine what data is missing in order to complete the particular DIST data field. The systems reports generated in Phase One will be the basis of this analysis along with the DIST Minimum Required Data Element Completeness Report for DFAS systems. DFAS will begin this exercise reviewing the Cleveland and Indianapolis Centers. This phase will be ongoing till all Centers are completed. The estimated completion date for the review is end of February 1998. As each Center is completed, the process will move into Phase Three.

PHASE THREE: This phase will gather the missing data and load the information into the DIST. In particular with hardware and software information, DFAS may request the DIST Help Desk to load additional choices into the pick lists in order to capture the necessary system information (vendors, model numbers and software version numbers, etc. cannot be automatically entered by a DIST editor). The DFAS goal is to complete this entire initiative by the end of March 1998.

This three phased approach should address the issue of DIST completeness and system sponsorship.

In regards to the specific systems addressed in your letter, action has already been taken to eliminate any discrepancies

between the DIST and the DFAS quarterly report on Year 2000 phases and strategy. In addition, a number of the systems identified in your report are mixed systems and are not the responsibility of DFAS. For example, UADPS-SP E&F and PWCMIS are Navy systems. Some of the systems should not be tracked in the DIST such as UPRIM and CIRS. Action has been taken to rectify these situations.

DFAS is taking aggressive action to address the DIST and Year 2000 issues.

Part III - Management Comments

DFAS Management Comments

DEFENSE FINANCE AND ACCOUNTING SERVICE
1931 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VA 22240-5291

DFAS-HQ/S

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: Audit Report on Year 2000 Initiatives for the Defense Integrated Support Tools Database, Project Number 7FG-0043.01

Although this particular report contains no findings or recommendations, Defense Finance and Accounting Service (DFAS) will take the opportunity to forward some comments, to request a minor change, and to clarify an area of responsibility.

First, it is requested that there be a minor change to the name of the report to "Year 2000 Initiatives for the Defense Integrated Support Tools Database Reporting at Defense Finance and Accounting Service (DFAS) at DFAS Cleveland Center".

Second, any changes made to the Defense Integrated Support Tool (DIST) database are the responsibility of DFAS-HQ/S. Editorship of the DIST was never delegated down to the Center level.

Lastly, DFAS-HQ/S has been reviewing the DIST and the areas of incompleteness addressed in your earlier correspondence. This exercise will be an ongoing process. However, the DIST has been inactivated due to its security classification of Secret. DFAS cannot guarantee that all data will be updated in the DIST by the original target date of April 1998. The target date will be adjusted according to the timeframe that the DIST is unavailable for updating.

Any questions regarding this memo can be directed to my point of contact for this matter, Richard Farrow, DFAS-HQ/SC, 703 607-3967.

C. Vance Kauzlarich
Director, Information and Technology

Appendix E. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
  Director, Defense Logistics Studies Information Exchange
Under Secretary of Defense (Comptroller)
  Deputy Chief Financial Officer
  Deputy Comptroller (Program/Budget)
Assistant Secretary of Defense (Command, Control, Communications and Intelligence)
Assistant Secretary of Defense (Public Affairs)

Department of the Army

Assistant Secretary of the Army (Financial Management and Comptroller)
Auditor General, Department of the Army

Department of the Navy

Assistant Secretary of the Navy (Financial Management and Comptroller)
Auditor General, Department of the Navy

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Finance and Accounting Service
  Deputy Director for Information Management
  Director, Defense Finance and Accounting Service Cleveland Center
Director, Defense Logistics Agency
Director, National Security Agency
  Inspector General, National Security Agency
Director, Defense Information Systems Agency
Inspector General, Defense Intelligence Agency

Non-Defense Federal Organizations and Individuals

Office of Management and Budget
Technical Information Center, National Security and International Affairs Division, General Accounting Office

Chairman and ranking minority member of each of the following congressional committees and subcommittees:

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on National Security, Committee on Appropriations
House Committee on Government Reform and Oversight
House Subcommittee on Government Management, Information, and Technology, Committee on Government Reform and Oversight
House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight
House Committee on National Security

Audit Team Members

The Finance and Accounting Directorate, Office of the Assistant Inspector General for Auditing, DoD, produced this report.

F. Jay Lane
Salvatore D. Guli
Kimberley A. Caprio
Geoffrey L. Weber
Phillip L. Holbrook, Jr.
Anthony L. Carbone
William C. Coker
A. Dahnelle Alexander
Velma E. Garcia-White
Susanne B. Allen
Gerrye Erwin
Traci Y. Sadler

DRAFT OF A

PROPOSED AUDIT REPORT

DEPT. OF DEFENSE HOTLINE

FOR REPORTING FRAUD, WASTE, AND ABUSE

800/424-9098

OR WRITE:

DEFENSE HOTLINE
THE PENTAGON
WASHINGTON, D.C.
20301-1900

IDENTITIES OF WRITERS & CALLERS FULLY PROTECTED.

DRAFT OF A

PROPOSED AUDIT REPORT

FOR OFFICIAL USE ONLY