Audit Report

YEAR 2000 INITIATIVES AT THE DEFENSE FINANCE AND ACCOUNTING SERVICE CLEVELAND CENTER

Report No. 98-111 April 16, 1998

Office of the Inspector General
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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
CMM	Capability Maturity Model
DFAS	Defense Finance and Accounting Service
DIST	Defense Integrated Support Tools
DRAS	Defense Retiree and Annuitant Pay System
DWAS	Defense Working Capital Accounting System
GAO	General Accounting Office
IFAS	Industrial Fund Accounting System
IG	Inspector General
MOA	Memorandum of Agreement
OMB	Office of Management and Budget
POC	Point of Contact
STARS	Standard Accounting and Reporting System
UMIDS	Uniform Microcomputer Disbursing System
Y2K	Year 2000

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April 16, 1998

MEMORANDUM FOR DIRECTOR, DEFENSE FINANCE AND ACCOUNTING SERVICE CLEVELAND CENTER

SUBJECT: Audit Report on Year 2000 Initiatives at the Defense Finance and Accounting Service Cleveland Center (Report No. 98-111)

We are providing this audit report for information and use. This is the first in a series of reports on Year 2000 initiatives. The primary purpose is to identify areas of concern related to Year 2000 efforts at the Defense Finance and Accounting Service.

We considered management comments on a draft of this report when preparing the final report. The Defense Finance and Accounting Service comments conformed to the requirements of DoD Directive 7650.3; therefore additional comments are not required.

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) 604-9139 (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.

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Report No. 98-111 **April 16, 1998**
(Project No. 7FG-0043)

Year 2000 Initiatives at the Defense Finance and Accounting Service Cleveland Center

Executive Summary

Introduction. This is one in 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" representing 1997, to conserve electronic data storage and reduce operating costs. With the two-digit format, the Year 2000 would be represented as "00," thus 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 problems, DoD issued the Y2K Management Plan. The Y2K Management Plan, which provides the overall strategy for resolving issues, has five phases: awareness, assessment, renovation, validation, and implementation.

Audit Objectives. The overall audit objective was to determine the effectiveness of Defense Finance and Accounting Service (DFAS) initiatives to address the Year 2000 computer problem, beginning with the assessment phase. Specifically, we determined whether the DFAS Cleveland Center performed adequate system assessments, and we evaluated the existence and adequacy of interface agreements. Subsequent reports will address the other DFAS centers. We did not review the management control program as it relates to the overall audit objective. DFAS and DoD identified Year 2000 as an uncorrected material weakness in their Annual Statements of Assurance for FYs 1996 and 1997.

Audit Results. To assist DFAS in taking prompt action, we briefed management on issues regarding DFAS reporting requirements and interface agreements. DFAS has initiated actions to address these issues, but additional efforts are needed. DFAS Cleveland Center system managers have not performed adequate assessments before moving systems into the renovation phase. One DFAS Cleveland Center system has been reported as Year 2000 compliant, although its compliance has not been validated. The DFAS Cleveland Center has not established all interface agreements and has not obtained interface agreements with sufficiently detailed information to ensure that interfaces will not cause failures due to the Year 2000 computing problem.

Summary of Recommendations. We recommend that the DFAS Cleveland Center review the results of the assessment phase at the system level to ensure that proper assessments have been performed; validate systems identified as Year 2000 compliant;

establish adequate interface agreements; and establish verification processes to ensure that interface agreements meet requirements and that the reporting of the systems' progress in becoming Year 2000 compliant reflects actual progress.

Management Comments. The DFAS concurred with the findings and recommendations in the draft report. The DFAS Cleveland Center stated system managers will be directed to complete the assessment phase exit criteria for systems reporting in the renovation phase. System managers will also be required to complete the compliance certification checklist before reporting systems as compliant. The Director, DFAS Cleveland Center will conduct monthly Y2K Control Board meetings to monitor system progress and to provide a forum for prompt resolution of potential problems. In addition, the DFAS Cleveland Center established a milestone of March 31, 1998, to correct deficiencies identified with Year 2000 interface agreements. System managers will also review verification procedures to ensure that existing interface agreements include the necessary elements. See Part I for a discussion of management comments and Part III for the full text of management comments.

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Part I - Audit Results

Audit Background

The Defense Finance and Accounting Service (DFAS) has management responsibility 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 Year 2000 (Y2K) quarterly reports track 196 systems. Of these, the DFAS Cleveland Center reports on 76 systems. Because DFAS relies heavily on computer systems to carry out its operations, Y2K issues can affect every aspect of the DFAS finance and accounting mission.

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, those 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 operational impact on Government computers, 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. On February 6, 1997, OMB issued a report, "Getting Federal Computers Ready for 2000." The OMB report included an initial cost estimate, planned strategy, and a timetable for implementing the planned strategy. In addition, OMB will monitor agency progress by requiring quarterly reports. On May 7, 1997, OMB issued the "Memorandum on Computer Difficulties Due to the Y2K -- Progress Reports." The memorandum requires that Y2K progress reports be issued to Congress and the public. The heads of selected Government agencies must report on the status of Y2K efforts each quarter, 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 established criteria for reporting mission-critical systems in the Defense Integration Support Tools (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 provides 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 action.

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, and analyze systems that support the core business areas, 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, 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 provided DoD-wide information on Y2K that managers could use to track and monitor Y2K compliance for mission-critical and other designated systems. The ASD (C3I) is expected to update the DoD Y2K Management Plan and direct a different data repository arrangement.

DFAS Y2K Executive Plan. To ensure that all active DFAS systems are Y2K compliant, DFAS developed a Y2K Executive Plan that outlines management responsibilities and reporting requirements. The DoD Y2K Management Plan covers the following four general areas to ensure that DFAS meets the challenge. The plan covers the:

- establishment of the DFAS Y2K points of contact (POCs) at various levels within the organization, including a POC who participates in the DoD Y2K Working Group and distributes Y2K information to DFAS.

- establishment of an inventory of DFAS systems that categorizes systems to be changed, replaced, or terminated and those that are Y2K compliant.

- establishment of Y2K responsibilities for the program and system managers; Directors of the DFAS Centers; the Deputy Director, DFAS; and the Deputy Director for Information Management.

- development of a DFAS quarterly consolidated report with information on systems at the DFAS Centers and Deputates.

Audit Objective

The overall audit objective was to determine the effectiveness of DFAS initiatives to address the Y2K computer problem, beginning with the assessment phase. Specifically, we determined whether the DFAS Cleveland Center had performed adequate system assessments, and we evaluated the existence and adequacy of interface agreements. Subsequent reports will address the other DFAS Centers. 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.

Other Matters of Interest

Determining whether systems are Y2K compliant is a relatively new requirement for DFAS system managers. The objectives of this audit focused on Y2K compliance issues and did not include evaluating the software maintenance processes of the DFAS Cleveland Center and its Financial Systems Activity. However, during our audit work, we encountered areas of concern

relating to the processes used by system managers to ensure that their systems are Y2K compliant. Based on interviews with system managers and documentation supporting Y2K system changes, it was evident that practices and procedures were not consistently applied to the system change processes for Y2K requirements.

The capability maturity model (CMM) was established by the Software Engineering Institute at Carnegie Mellon University, Pittsburgh, Pennsylvania, to measure the level of software maintenance organizations. According to the CMM, organizations that are ranked at higher levels have a lower risk of cost overruns and schedule delays when performing software maintenance projects. We did not evaluate the DFAS organizations that performed Y2K software maintenance against the standards in the CMM. However, we encountered characteristics typically attributed to lower-ranked software development organizations. Specifically, we noted a lack of awareness and application of existing policies and procedures for software maintenance. We also reviewed Y2K maintenance project plans which did not include thorough definitions of the work required and realistic milestones based on estimated work requirements.

Finding A. DFAS Reporting Requirements

The DFAS Cleveland Center's quarterly reports on Y2K were unreliable and did not accurately report the progress in solving Y2K problems at the DFAS Cleveland Center. Specifically, the DFAS Cleveland Center did not:

- perform adequate assessments of systems reported in the renovation phase, and
- meet all requirements for making systems Y2K compliant.

The quarterly reports were unreliable because system managers at the DFAS Cleveland Center did not implement the requirements of the DoD Y2K Management Plan, which specifies the exit criteria and minimum requirements for a system-level Y2K project plan. In addition, the DFAS Cleveland Center did not have a mechanism for verifying that a system had met the requirements for progressing from one phase to the next. As a result, DoD and DFAS management were relying on inaccurate information, which increased the risk of system failures due to Y2K noncompliance.

Y2K Reporting Requirements

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

To identify and monitor the status of all DoD systems in becoming Y2K compliant, the ASD (C3I) and DFAS have established reporting guidelines. The guidance standardizes the reporting process and ensures that system managers use a consistent methodology for reporting the Y2K status of systems.

DoD Guidance. The DoD Y2K Management Plan, Version 1.0, April 1997, details the five-phase management process, key responsibilities of DoD Components, quarterly reporting requirements, and the timeline for completion

of each Y2K phase. The DoD Y2K Management Plan also gives criteria for DoD Components to determine the appropriate Y2K phase for each system in their quarterly Y2K reports to the ASD (C3I).

DFAS Guidance. DFAS Regulation 8000.1-R, "Information Management Policy and Instructional Guidance," version 5, chapter 11, Y2K Initiative, June 19, 1997, establishes DFAS Y2K guidance, corporate strategy, and a DFAS Executive Plan for Year 2000. The Regulation also defines the system release test procedures and processes that DFAS system managers should follow to ensure Y2K compliance, including system certification guidance and a DFAS compliance certification checklist.

System Phase Quarterly Reporting

We reviewed selected systems reported by the DFAS Cleveland Center. These systems were listed in the DFAS October 1997 quarterly report submitted to the Deputy Director for Information Management. Systems at the DFAS Cleveland Center were reported in phases that did not accurately reflect the level of work performed. Specifically, three of the six systems we reviewed had not completed a sufficiently thorough assessment to be reported in the renovation phase. In addition, one of the two systems that we reviewed was reported as being Y2K compliant, although it had not met the reporting requirements.

According to the DoD Y2K Management Plan, each DoD Component should complete the exit criteria for each phase, and systems that cannot meet DoD-established completion dates should be tracked to ensure that exit criteria are completed by the last day of each phase. The system managers should use the exit criteria in the DoD Y2K Management Plan to determine whether a system has completed an adequate assessment and can proceed to the next Y2K phase. System managers should perform these basic steps before applying the exit criteria to DFAS as a whole.

Systems Reported in the Renovation Phase

In the DFAS October 1997 quarterly report, the DFAS Cleveland Center reported 20 of 76 systems in the "to be changed" category. All 20 systems were also reported in the renovation phase. (The remaining 56 systems were categorized as "to be replaced," "being developed as Y2K compliant," or "already Y2K compliant.") To report that a system is in the renovation phase, the system should meet the exit criteria of the assessment phase as outlined in the DoD Y2K Management Plan. Developing a system-level Y2K project plan is the primary deliverable for exiting the assessment phase.

Requirements for Completing the Assessment Phase. During the assessment phase, the system manager determines the level of Y2K work to be performed, develops an initial cost estimate, and prepares a detailed Y2K project plan. For a DoD system to advance from the assessment phase, the DoD Y2K Management Plan requires that the following exit criteria be completed:

- an assessment phase plan,
- a documented renovation strategy,
- a Y2K resource strategy and plan,
- a documented validation strategy,
- inclusion of the system in the DIST database, and
- a documented plan for risk management and contingencies.

To exit the assessment phase, each DoD Component should have a documented Y2K project plan for each system. A Y2K project plan incorporates the elements of the assessment phase exit criteria listed above, and, in accordance with the DoD Y2K Management Plan, should include, at a minimum:

- the start and release date for each phase,
- major steps in conversion (renovation) and testing (validation) of the code,
- major steps in establishing the necessary infrastructure, and
- resources required to accomplish these tasks.

A comprehensive Y2K project plan can minimize costs and shifting of resources, establishes accurate schedules and milestones, identifies deficiencies, and lessens risks as a system progresses through the Y2K phases. Without an adequate assessment and a detailed Y2K project plan, system managers may underestimate the work and resources required to make a system Y2K compliant. Performing an adequate assessment and developing a detailed project plan allows system managers to develop realistic and accurate milestones and increases the probability of meeting the milestones.

Completion of the Assessment Phase. We selected 6 of the 20 systems reported in the renovation phase to determine whether the systems met the requirements for completing the assessment phase. Our analysis was based on the exit criteria and minimum elements of a project plan at the completion of the assessment phase. We did not review the assessment phase exit criteria in the DoD Y2K Management Plan for establishing risk management and contingency plans. For three of the six systems reviewed, system managers at the DFAS Cleveland Center had not performed an adequate assessment and had not met all of the exit criteria for the assessment phase. The following are two examples of systems inappropriately reported in the renovation phase.

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 Forms W-2 (Wage and Tax Statements), and reports accounting information. The October 1997 quarterly report showed ADS in the renovation phase. At that time, system managers had identified the

system in the DIST database, had established start and release dates for each phase, and had developed a Y2K resource strategy and plan. However, system managers had not:

- documented the renovation strategy,
- documented the validation strategy, and
- documented the major steps in establishing the necessary infrastructure.

Book Entry Bond System (BEBS). BEBS provides electronic safekeeping of bonds purchased by an active duty member until the member requests that the bonds be mailed to an address. This system was reported in the renovation phase in the October 1997 quarterly report. At that time, system managers had identified the system in DIST and had identified start and release dates for each phase. However, system managers had not:

- identified the resources required,
- documented the renovation strategy,
- documented the validation strategy, and
- documented the major steps in establishing the necessary infrastructure.

Inaccurate Reporting of Systems in the Renovation Phase. Of the six systems we reviewed at the DFAS Cleveland Center, three had not met all exit criteria for the assessment phase to permit them to be reported in the renovation phase. This occurred because system managers did not follow the reporting guidance in the DoD Y2K Management Plan and had not adequately assessed the work required to make the system Y2K compliant.

Impact of Incomplete Exit Criteria and Project Plans Before Completing the Assessment Phase. Inaccurate reporting of DFAS systems could adversely affect the conversion of systems to meet the Y2K deadline. DoD has established guidelines and exit criteria for the five phases to ensure consistency in the reporting process and provide baselines against which to assess progress in meeting Y2K compliance. Regardless of the phase in which a DFAS system is reported, the steps outlined in the exit criteria must be performed in a timely manner. The exit criteria give system managers a method for achieving Y2K compliance. This is particularly important for the 88 systems that DFAS, in total, has identified as mission-critical. Delay or failure to complete the steps in the exit criteria for each phase could result in systems that are not Y2K compliant and potential system failures when processing Y2K data. In addition, organizations outside DFAS, including the ASD (C3I) and OMB, rely on the quarterly reports to be consistent and accurate. When DFAS systems are reported as being in the renovation phase without completing the exit criteria for the assessment phase, this gives OMB and DoD an inaccurate view of work

performed. DFAS system managers should meet the assessment phase exit criteria in the DoD Y2K management plan for systems reported in the renovation phase.

Systems Reported as Compliant

In the October 1997 quarterly report, 8 of the 76 systems reported under the DFAS Cleveland Center were Y2K compliant. Several processes can be followed to make a system Y2K compliant. A system can be developed as Y2K compliant and confirmed by certification; or an existing system can be made compliant through the five-phase process and confirmed in the validation phase. However, before reporting a system as compliant, the system must go through the certification process. We reviewed two of the eight systems that the DFAS Cleveland Center reported as Y2K compliant. The two systems were the Defense Working Capital Accounting System (DWAS) and the Uniform Microcomputer Disbursing System (UMIDS).

Requirements for Completing the Validation Phase. In the validation phase, assorted testing and compliance processes are used to provide assurance that systems are Y2K compliant. For a system to exit the validation phase and be certified as Y2K compliant, the following criteria, as identified in the DoD Y2K Management Plan, should be completed and documented:

- unit, integration, and system testing and system certified and
- acceptance testing and system certification.

Certification Process. DFAS Regulation 8000.1-R gives system managers guidance on Y2K system certification, including a compliance certification checklist and test procedures for determining Y2K system compliance. The Regulation requires unit testing, integration testing, acceptance testing, and independent third party testing. DFAS system managers, in coordination with the technical manager, are to complete the certification checklist and return it to the Y2K POC. The POC is to review the completed checklist and verify any incomplete, inconsistent, or confusing information with the system manager. Subsequently, the DFAS Center Director or the Deputy Director, DFAS, is to review and sign the completed checklist. The Director, DFAS Cleveland Center, meets with system managers to jointly review the certification checklist.

Meeting Criteria for Compliance. We reviewed two of the eight systems that the DFAS Cleveland Center reported as Y2K compliant. We determined that one of those systems, DWAS, had not met the exit criteria and should not have been reported as Y2K compliant. Our analysis was based on the exit criteria for the validation phase. Specifically, DWAS did not meet the exit criteria but was reported as compliant in the DFAS October 1997 quarterly report. DWAS is a migratory system identified by DFAS as 1 of the top 20 mission-critical systems. It is designed to account for transactions from two component business areas. At the time of our review, DWAS system managers reported that neither of the DWAS components had performed all of the testing

required by the DoD Y2K Management Plan to report a system as compliant. Therefore, this system should not have been reported as Y2K compliant in the October 1997 quarterly report.

Inaccurate Reporting of DWAS as Compliant. DWAS was erroneously reported as compliant for the following reasons.

- System managers did not follow all guidance in the DoD Y2K Management Plan for completing the exit criteria for the validation phase before reporting the system as Y2K compliant.
- The DFAS Cleveland Center lacked a mechanism for verifying that all requirements were performed and documented before reporting systems as Y2K compliant.
- System managers perceived a need to demonstrate progress in reporting systems as Y2K compliant.

Guidance in the DoD Y2K Management Plan. As stated above, DWAS system managers did not follow the DoD Y2K Management Plan exit criteria requirements before reporting DWAS as Y2K compliant. DFAS Cleveland Center system managers need to ensure that the DoD Y2K Management Plan exit criteria are completed before reporting systems as compliant.

Mechanism for Verification. The DFAS Cleveland Center lacked a method for verifying that system managers completely and accurately report the work performed to achieve system Y2K compliance. DFAS was relying on system managers to report complete and accurate information for consolidation into quarterly reports used by both internal users and outside organizations. However, it needs to establish a mechanism to ensure that systems are progressing as needed to meet Y2K deadlines and that information reported to DoD and DFAS management is accurate, reliable, and reflects the status of each DFAS system.

Perceived Need to Report Progress. Based on our interviews, DFAS Cleveland Center personnel perceived the need to become Y2K compliant as soon as possible and to report significant progress. Managers do not want to fall behind and be reported to DFAS, DoD, and other organizations as not meeting Y2K goals. Thus, rather than reporting conservatively, managers may be optimistic in their estimations of progress on Y2K compliance.

Impact of Inaccurate Reporting. Inaccurate reporting of DFAS systems, either in the renovation phase or as Y2K compliant, could have adversely affected both DoD and DFAS. DoD and DFAS managers relied on the information and made assumptions in planning future Y2K work; as a result, systems might fail. Y2K compliance testing in a later phase might fail to achieve Y2K compliancy within acceptable time frames. Specifically, if DFAS managers had believed that systems reported in the renovation phase had completed all exit criteria for the assessment phase, they may have assumed, for example, that major steps required to convert or test codes had been determined

and that required resources were available. Considering the potential shortfall in staffing and the resources needed for testing, these criteria must be addressed as soon as possible.

Conclusion

The accuracy of quarterly reporting is critical; however, the actual work performed by DFAS is more important in solving the Y2K problem. DFAS should be concerned that its system managers meet all minimum requirements in the DoD Y2K Management Plan for exit criteria and project plans. More importantly, DFAS managers should ensure that an adequate assessment of each system is performed in a methodical, effective, and efficient manner. Further, DFAS and DoD management will not have accurate and reliable information on the status of all DFAS systems unless the methodology in the DoD Y2K Management Plan is consistently applied. Otherwise, DoD and DFAS management could possibly rely on inaccurate information that could increase the risk of system failure due to the Y2K problem.

Recommendations, Management Comments, and Audit Response

A. We recommend that the Director, Defense Finance and Accounting Service Cleveland Center:

1. Direct system managers at the Defense Finance and Accounting Service Cleveland Center to fulfill the assessment phase exit criteria in the DoD Year 2000 Management Plan for systems reported as being in the renovation phase.

Management Comments. The DFAS concurred, stating that the DFAS Cleveland Center system managers will be directed to complete the assessment phase exit criteria for systems reporting in the renovation phase. DFAS further stated that DFAS Regulation 8000.1-R documents the validation strategy required in the assessment phase exit criteria.

Audit Response. While DFAS Regulation 8000.1-R documents the corporate validation process, the DoD Y2K Management Plan infers that the validation strategy results from an assessment of the individual system testing requirements rather than a validation process at the corporate level. The action taken by Defense Finance and Accounting Service has met the intent of the recommendation.

2. Direct system managers at the Defense Finance and Accounting Service Cleveland Center to meet all criteria in the DoD Year 2000 Management Plan for systems listed as Year 2000 compliant, including completion of the Defense Finance and Accounting Service compliance certification checklist, before reporting systems as compliant.

Management Comments. The DFAS concurred, stating that the DFAS Cleveland Center system managers will complete the compliance certification checklist before reporting systems as compliant.

3. Establish a verification mechanism to ensure that systems are progressing as needed to meet the deadline and that information reported to DoD and Defense Finance and Accounting Service management is accurate, reliable, and reflects the status of each Defense Finance and Accounting Service system.

Management Comments. The DFAS concurred, stating that the DFAS Cleveland Center Director will conduct monthly Y2K Control Board meetings to provide a mechanism for monitoring system progress. This forum will provide detailed Year 2000 system status and ensure corrective actions should problems arise.

Finding B. Interface Agreements

The DFAS Cleveland Center had not effectively completed all necessary interface agreements. Of the 152 interface agreements required for the 9 DFAS Cleveland Center systems we reviewed, 73 interface agreements for 3 of the systems had not been established. Of the remaining 79 interface agreements that were established:

- 54 did not identify strategies and changed record formats,
- 53 lacked milestone dates for implementation,
- 51 did not identify test files, and
- 62 did not identify a POC.

DFAS identified 5 of the 9 systems reviewed among its top 20 mission-critical systems. The DFAS Cleveland Center does not have a verification process to ensure that adequate interface agreements are in place. As a result, some issues -- such as identifying responsible parties and determining how and when critical data exchanges will occur -- may be unclear and could cause a system to operate improperly.

DFAS Cleveland Center's Responsibility for Systems

According to the October 1997 quarterly report, the DFAS Cleveland Center is tracking 76 finance and accounting systems. Those systems are primarily responsible for processing and reporting on retiree pay and contractor payments. For systems that we selected for review, the number of interfaces with other systems ranged from 2 to 53.

Requirement for Interface Agreements

Successful data exchanges are essential to DFAS finance and accounting operations. DFAS systems interface internally with other DFAS systems and externally with systems belonging to the Services, DoD Components, and various Federal agencies. Data exchanges are critical in the Y2K effort because they can introduce or transmit errors from one organization to another.

Interface agreements are necessary when multiple parties are involved in data exchanges. The DoD Y2K Management Plan recommends that an interface agreement be a Memorandum of Agreement (MOA) or the equivalent. System owners can reduce the risk of potential failure by establishing interface agreements and agreeing on schedules and changed record formats and

providing one another with test files. The DFAS Executive Plan for Y2K makes system managers responsible for agreeing how and when an interface between systems will be Y2K compliant.

An interface agreement negotiated between the affected parties should allow DFAS to:

- identify and understand the strategy that each system and interface will use for Y2K;
- ensure that milestones are closely coordinated, monitored, and accomplished in a timely manner;
- identify testing to be performed for each system involved with the interface; and
- assign responsibility and ensure accountability.

On September 11, 1996, the Under Secretary of Defense (Comptroller) issued a memorandum for the Assistant Secretaries of the Military Departments (Financial Management and Comptroller) and the Directors of the Defense agencies. The memorandum requested that written agreements document how and when interfaces will be made Y2K compliant, and that progress on interfaces be monitored through reviews.

GAO Report No. AIMD-97-117 (OSD Case No. 1392), "Defense Computers: DFAS Faces Challenges in Solving the Y2K Problem," August 11, 1997. The report states that DFAS has not identified all system interfaces, and has completed only 230 of 904 written agreements with interface partners. After the report was issued, DFAS took action on the GAO concerns. The Director, DFAS, instructed the Deputy Director for Information Management to establish written agreements with interface partners by September 30, 1997 (see Appendix B for details).

Interface Agreements at the DFAS Cleveland Center

Review of DFAS Cleveland Center Interface Agreements. DFAS took action in response to the GAO report; however, as of November 26, 1997, interface agreements were still not in place at the DFAS Cleveland Center. We selected 9 of 76 systems for review. Of the systems reviewed, DFAS identified five as being among its top 20 mission-critical systems. For the nine systems reviewed, the DFAS Cleveland Center identified 152 interfaces with other systems. DFAS established 79 of the required interface agreements, but 73 had not been established. Further, existing interface agreements for each of the 9 systems were inadequate.

Existence of DFAS Cleveland Center Interface Agreements. System managers at the DFAS Cleveland Center have not established adequate interface agreements with their partners, despite a self-imposed deadline of September 30, 1997. The DFAS Annual Statement of Assurance for FY 1996

states that all interface agreements will be established by September 30, 1997. Specifically, three of the nine systems had not established all of the required interface agreements. Specifically, of the top 20 mission critical systems:

- the Standard Accounting and Reporting Systems (STARS), a migratory system did not have 48 of the 53 interface agreements needed.
- the Defense Retiree and Annuitant Pay System (DRAS), a migratory system did not have 8 of the 15 interface agreements needed.
- the DWAS, did not have 17 of the 20 interface agreements needed.

Note: Amounts identified in this report vary slightly from those identified in Appendix C as a result of additional analysis performed since the memorandum was issued.

Elements of Interface Agreements. System managers provided written documentation for interface agreements. However, nearly all agreements lacked basic information needed to implement and manage the interfaces. According to the DoD Y2K Management Plan and DFAS guidance, interface agreements should include strategies and changed record formats, milestones, test files and affected fields, and POCs for each system and interface.

- **Strategies and Changed Record Formats.** Strategies and changed record formats allow system managers to identify the method selected by interface partners and inform management as to which systems need to establish a bridge or filter to accommodate the exchange of data. Of the 79 interface agreements reviewed, 54 did not identify either a strategy, a changed record format, or both (see Appendix C for a list of systems and missing elements).

- **Milestones.** Interface agreements should include milestones for analysis, programming, testing, and implementation for both systems to ensure that each system and interface will meet its target date for Y2K compliance. Of the 79 interfaces agreements, 53 lacked milestones. For example:

  - the Industrial Fund Accounting System (IFAS), a migratory system that is also a DFAS top 20 mission-critical system, lacked milestones for 9 of the 11 interface agreements.
  - the ADS, a DFAS top 20 mission-critical system, had not completed milestones for 12 of 13 interface agreements.
  - the Uniform Microcomputer Disbursing System (UMIDS) did not have all milestones for four of six interface agreements (see Appendix C for a list of systems and missing elements).

- **Test Files and Affected Fields.** Test files and affected fields allow program managers to identify which files should be scheduled for testing so that

Y2K changes related to system interfaces can be tested. Of the interface agreements reviewed, 51 of 79 did not identify test files, affected fields, or both. For example:

- IFAS had not identified test files or affected fields for any of the 11 interface agreements.

- STARS had not identified test files or affected fields for four of five interface agreements (see Appendix C for a list of systems and missing elements).

• **Points of Contact.** Identifying a POC for each system is necessary to clearly outline responsibilities for coordination and proper reporting between systems and interface partners. Of the interface agreements reviewed, 62 of 79 had not identified a POC for one or both systems. For example, ADS had not identified a POC for 1 or both systems for all 13 interface agreements (see Appendix C for a list of systems and missing elements).

DFAS Efforts to Address Y2K Issues. On October 31, 1997, we briefed managers of the DFAS Cleveland Center. On November 17, 1997, we briefed managers at Headquarters, DFAS. On November 26, 1997, we provided DFAS management with a memorandum detailing our concerns about interface agreements (see Appendix C). DFAS management held a Y2K summit on December 15, 1997, with DFAS Center Directors and Y2K POCs. During the summit, the Director, DFAS agreed with the Inspector General (IG), DoD, that interface agreements were nonexistent or inadequate at all DFAS Centers. He emphasized the need to quickly obtain adequate interface agreements. DFAS management set January 31, 1998, as the new deadline for system managers to obtain adequate interface agreements. In response to our list of concerns about interface agreements, DFAS has taken the following steps.

- DFAS Cleveland Center management reissued the guidance on interface agreements and directed all system managers to review, report on, and complete all Y2K interface agreements by January 31, 1998, and to immediately report any problems.

- DFAS Cleveland Center management performed a spot check of interface agreements for content.

Verification Process. We commend DFAS for recognizing and addressing the need to develop interface agreements quickly and for setting an early deadline. Ensuring that interface agreements with all the necessary elements are established reduces the risk of errors during critical data exchanges. Establishing a process for verifying interface agreements and milestones for completing the verification process will help the Director, DFAS Cleveland Center, reduce the risk of system failures.

Summary

The DoD Y2K Management Plan provides overall guidance for DoD Y2K efforts. The DoD Y2K Management Plan states that DoD Component heads or their Y2K POCs shall document and obtain interface agreements in the form of MOAs or the equivalent. The DFAS Executive Plan for Y2K makes system managers responsible for obtaining interface agreements that state how and when the interface will be compliant. DFAS Cleveland Center management has not sufficiently implemented the guidance on interface agreements and has not established a process to verify that all interface agreements are adequate and in place. Thus, the DoD Y2K Management Plan and the DFAS Executive Plan for Y2K have not been fully implemented. Obtaining interface agreements to address the Y2K problem are critical for automated financial systems. The agreements describe the method of interface, identify responsibilities for accommodating data exchange, and include target dates for each milestone. Although the establishment of interface agreements is important, the terms and conditions of interface agreements are more critical, considering the impact of Y2K issues. DFAS management must insist that system managers obtain interface agreements, and system managers must be responsible for reviewing all interface agreements to ensure that every element is adequately addressed. We commend DFAS management for acting promptly after our briefing on November 17, 1997, and our memorandum of November 26, 1997 (see Appendix C).

Recommendations and Management Comments

B. We recommend that the Director, Defense Finance and Accounting Service Cleveland Center:

1. Establish a milestone for verification.

2. Perform the verification process to ensure that all interface agreements are complete and include the necessary elements.

Management Comments. The Defense Finance and Accounting Service concurred, stating that the DFAS Cleveland Center established a milestone of March 31, 1998, to correct deficiencies identified with Year 2000 interface agreements. System managers will verify that existing interface agreements include the necessary elements.

Part II - Additional Information

Appendix A. Audit Process

Scope and Methodology

Work Performed. This is one in 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 listing 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 quarterly Y2K report, submitted in October 1997 to the DFAS Deputy Director for Information Management. Based on the DoD Y2K Management Plan and DFAS Regulation 8000.1-R, we evaluated the reliability of the report. We also evaluated the usefulness of information in the quarterly report for oversight purposes.

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 reviewed 14 of 76 systems reported on by the DFAS Cleveland Center. To select the systems for review, we used the October 1997 DFAS quarterly reports, the DIST database, and the DFAS System Inventory Database. Of the 14 systems we reviewed, 2 systems were categorized as compliant, 6 were to be changed and in the renovation phase, 1 was in development, and 5 were to be replaced. We reviewed system-level Y2K project plans and evaluated documentation to determine whether the systems met the requirements of the DoD Y2K Management Plan, Version 1.0, April 1997.

We selected 9 out of 76 DFAS Cleveland Center systems to review their interface agreements. For the 9 systems reviewed, we requested 152 interface agreements and received 79 agreements to validate their existence and determine their adequacy.

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

General Accounting Office

The General Accounting Office audit relevant to this report is summarized below.

GAO Report No. AIMD-97-117 (OSD Case No. 1392), "Defense Computers: Defense Finance and Accounting Service Faces Challenges in Solving the Y2K Problems," August 11, 1997. The report states that DFAS developed a Y2K strategy consistent with the DoD Y2K Management Plan and defined conditions that automated information systems must meet to obtain certification as Y2K compliant. However, DFAS had not identified all critical tasks for achieving Y2K objectives, established milestones for completing all tasks, performed formal risk assessments of all systems to be renovated, or prepared contingency plans in the event that renovations are not completed in time or fail to operate properly. The report also states that DFAS had not identified all system interfaces and had completed only 230 of 904 written agreements with interface partners. Further, DFAS had not adequately ensured that testing resources would be available to determine whether all operational systems are compliant before the Y2K. The report recommended that DFAS identify Y2K program actions and milestones, issue guidance on ensuring continuity of operations, identify external interfaces and obtain written agreements describing the method of data exchange, and devise a testing schedule to ensure that all systems can operate in a Y2K environment. The Under Secretary of Defense (Comptroller) concurred with the recommendations. DFAS agreed to update its existing Y2K Executive Plan and its Corporate Contingency Plan. DFAS also agreed to have all written interface agreements with interface partners in place by September 30, 1997, and to fully implement its Y2K certification process for ensuring that all systems are compliant. Further, DFAS agreed to devise a testing schedule that identifies the test facilities and resources needed for performing proper testing of its systems in a Y2K environment.

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

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

November 26, 1997

MEMORANDUM FOR DEPUTY DIRECTOR FOR INFORMATION MANAGEMENT, 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 October 1997. This memorandum reports the initial results of our review. 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 held an In Process Review with Mr. Amlin, Acting Director, DFAS on November 17, 1997. During this In Process Review, we briefed preliminary issues concerning interface agreements and the accuracy of quarterly reports. Per your request, we have drafted an assessment of the quarterly reports and status of interface agreements.

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. 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 (703) 604-9139 DSN 664-9139.

F. Jay Lane
Director
Finance and Accounting Directorate

Interface Agreements

According to the DoD Year 2000 Management Plan, data exchanges are critical in the Year 2000 effort because they have the potential to introduce/propagate errors from one organization to another. Trading partners can help mitigate this potential pitfall by agreeing early on to schedules, changed record formats, and by providing one another with test files. On September 11, 1996, the Deputy Secretary of Defense issued a memorandum for the Assistant Secretaries of The Military Departments (Financial Management and Comptroller), and the Directors of The Defense Agencies. In his memorandum, the Deputy Secretary requested that written agreements document how and when interfaces will be made Year 2000 compliant, and that a process be established to monitor progress. We believe that it is imperative for systems to have adequate interface agreements in place for each interface.

For an interface agreement to be adequate, some of the major elements that should be addressed and included in written interface agreements are milestones, strategies and change record formats, identified test files and affected fields, and a point of contact for each system. Milestones should be included in the interface agreements to help ensure that each system and interface will meet their target date for implementation. Documenting the strategies and record change formats enable systems to identify the interfacing files and the strategy selected by interface partners. This information will allow for the establishment of bridges or filters, as needed. Test files and affected fields will identify which files should be scheduled for testing so that Year 2000 changes related to system interfaces can be properly tested. A documented point of contact (POC) for each system will ensure that full coordination and proper reporting progress is facilitated between systems and interface partners.

The following conclusions are based on self-identified interfaces and written interface agreements provided to our office during our visit to the DFAS Cleveland Center during the period Oct. 27-31, 1997. Our office requested and reviewed interface agreements from 9 systems at the DFAS Cleveland Center. We found that some interface agreements had not yet been established and that some lacked sufficient detail. We only noted the missing or inadequate critical elements that require attention.

Interface Agreements:

Standard Accounting and Reporting System (STARS)
Migratory and DFAS Top 20 Critical This system has identified 55 interfaces. Over 90 percent of the interface agreements are not in place (50 out of 55).

Defense Retiree and Annuitant Pay System (DRAS)
Migratory and DFAS Top 20 Critical This system has identified 15 interfaces. Over 53 percent of the interface agreements are not in place (7 out of 15).

Defense Working Capital Accounting System (DWAS)
Migratory and Mission Critical This system has identified 20 interfaces, over 85 percent are not in place (17 out of 20).

Major Elements of Interface Agreements:

Milestones:

Automated Disbursing System (ADS)
DFAS Top 20 Critical 12 of the 13 interface agreements did not identify milestones.

Industrial Fund Accounting System (IFAS)
Migratory and DFAS Top 20 Critical 8 of the 10 interface agreements did not have milestones, or only identified partial milestones.

Uniform Microcomputer Disbursing System (UMIDS)
DFAS Top 20 Critical 5 of the 6 interface agreements did not have milestones, or only identified partial milestones.

Strategies and change record formats:

Departmental Financial Reporting & Reconciliation System (DFRRS)
13 of the 26 interface agreements failed to identify the strategy to be used and/or failed to describe or assign responsibility for a bridge.

Test files and affected fields:

Automated Disbursing System (ADS)
DFAS Top 20 Critical 11 of the 13 interface agreements failed to identify test files. Of these 11, one mentioned test files but failed to identify affected fields.

Industrial Fund Accounting System (IFAS)
Migratory and DFAS Top 20 Critical None of IFAS's interface agreements identified test files or affected fields.

Departmental Financial Reporting & Reconciliation System (DFRRS)
Critical 16 of the 26 interfaces agreements failed to identify their test files and affected fields.

Standard Accounting and Reporting System (STARS)
Migratory and DFAS Top 20 Critical 4 f the 5 interface agreements failed to identify test files and affected fields.

Point of Contact (POC):

Of the 149 interface agreements reviewed, only 10 interfaces identified a POC with both a name and phone number for each system.

System Phase Quarterly Reporting

The DoD Year 2000 Management Plan has established certain reporting guidelines to standardize the reporting process and to ensure that a consistent methodology is followed by system managers when reporting the Year 2000 status of systems. We are concerned about the level of work that is implied when systems are reported in a particular phase of the quarterly report. While the accuracy of reporting is critical, we have an equal concern about the actual work that has been performed to date.

We selected systems from the DFAS Indianapolis and DFAS Cleveland Centers that were included in the DFAS quarterly reports. We reviewed systems that were reported in the renovation phase or compliant category. We interviewed system functional and technical managers and reviewed supporting documentation to determine whether the systems met the minimum exit criteria requirements outlined in the DoD Year 2000 Management Plan, version 1.0 April 1997. In analyzing the systems, we did not consider the contingency strategy and risk management strategy to determine if a system was categorized in the correct phase. We used the October, 1997 DFAS quarterly report to select the DFAS Cleveland Center systems and the July, 1997 DFAS quarterly report to select DFAS Indianapolis Center systems. Our concerns are outlined below by DFAS Center and system.
DFAS Cleveland Center Systems

Automated Disbursing System (ADS):
Migratory and DFAS Top 20 Critical System
The requirement to identify the resource strategy requirements as well as the requirement to document the start and release date for each phase was met. However, the renovation strategy, validation strategy and the major steps to establish the necessary infrastructure requirements were not established. The Y2K plan was inadequate and system managers stated there was no documentation to support the work performed during the assessment phase. **ADS was reported in the renovation phase in the DFAS October quarterly report. However, the system had not met the minimum exit criteria and should have been reported in the assessment phase.**

Book Entry Bond System (BEBS):
The requirement to establish the start and release date for each phase was met. System managers had not established the renovation strategy, validation strategy and the major steps to identify the necessary infrastructure requirements. Additionally, the resource strategy requirement was not met. The Y2K plan lacked sufficient detail. Although system managers stated that they were still performing analysis, the July quarterly report reflected that the system was in the renovation phase, Additionally, documentation provided by system managers stated that programming would begin in January 1998 and that analysis would be completed in December 1997. **The system was reported in the renovation phase in the DFAS October quarterly report. However, the DoD Year 2000 Management Plan minimum exit criteria had not been met. The system should have been reported in the assessment phase.**

Standard Accounting and Reporting System (STARS):
Migratory and DFAS Top 20 Critical System
The requirement to identify the start and release date for each phase and the major steps to establish the necessary infrastructure requirements was met. The system managers provided information related to risk management, environment, hardware technical descriptions, resources, and responsibilities. However, validation strategy and renovation strategy requirements had not been met. The Y2K plan obtained is not sufficiently detailed. **The system was reported in the renovation phase in the DFAS October quarterly report. However, the system had not met the minimum exit criteria and should have been reported in the assessment phase.**

Defense Working Capital Accounting System (DWAS):
Migratory and DFAS Top 20 Critical System
Although the DWAS system is reported in the compliant category, the system certifications are still in process. Certification level II for the DAPS component is ongoing and Certification level I for PWC is due in March/April 1998. Since the operating system is not compliant and system management stated that the Joint Interoperability Test Command will perform 3rd party testing, the system should be reported in the validation phase. **The system was reported in the compliant category in the DFAS October quarterly report. However, the DoD Year 2000 Management Plan exit criteria had not been met and the system should have been reported in the validation phase and should not be listed in the compliant category.**

Standard Finance System (STANFINS):
The system managers stated that the Y2K approach and strategy had not yet been determined during interviews held on August 12, 1997. A Y2K plan was anticipated to be developed and completed by October, 1997. **The system should not have been categorized in the renovation phase as of 8/12/97 as the minimum exit criteria for the assessment phase had not been met.**

Appendix D. DFAS Cleveland Center Comments on IG, DoD, Memorandum

DEFENSE FINANCE AND ACCOUNTING SERVICE
CLEVELAND CENTER
1240 EAST NINTH STREET
CLEVELAND, OH 44199-2055

(DFAS-CL/M)

JAN 12 1998

MEMORANDUM FOR DIRECTOR, DEFENSE FINANCE AND ACCOUNTING SERVICE, FINANCIAL SYSTEMS ORGANIZATION

SUBJECT: Y2K DoDIG Data Request

In response to the Department of Defense, Inspector General (DoDIG) memorandum of November 17, 1997 concerning the Year 2000 (Y2K) for the Defense Finance and Accounting Service - Cleveland Center (DFAS-CL), I have reviewed and concur with the attached.

My point of contact is Richard Krajewski or Sandra Johnson. They can be reached at DSN 580-5116/5628 or (216) 522-5116-5628.

Phyllis A. Hudson
Director

Attachments:
As stated

The following is provided to respond to the DoDIG request of 1/7/98.

Interface Agreements - DFAS-CL management has taken the following initiatives to validate the existence and adequacy of Y2K interface agreements:

1. DFAS-CL management directed that the DFAS-CL system managers review all their existing Y2K Interface Agreements (MOAs) for content/adequacy. A spreadsheet report format was provided for this review on 12/22/97. The review was to include the following items: systems named with Y2K strategy, interface file(s) listed, number of input files, number of output files, interface file layout(s) attached or affected fields listed, interface strategy listed, schedule with target completion dates listed, manager names printed, signed by both parties, POC information listed on attached sheet. The Y2K MOA review report is due back to the DFAS-CL Y2K Project Coordinator by 1/20/98.

2. The DFAS-CL Director directed that all Y2K interface agreements are to be completed by 1/30/98 with no exceptions. Her direction stated that any problems are to be forwarded up the management chain immediately. Any outstanding Y2K MOAs are to be forwarded with dates and times of discussion and POC information. The Director will follow up on the outstanding MOAs with her POCs in the Navy and other agencies as required. In November, the DFAS-CL Director provided the Principal Deputy, ASN (FM&C), with a list of outstanding interface agreements between Navy and DFAS-CL. Y2K status of agreements is discussed during their weekly conference call and appropriate follow-up taken.

3. The completed Y2K Interface Agreements (MOAs) for all DFAS-CL critical systems were collected in December 1997. Spot checks on MOA content were conducted by the DFAS-CL Y2K Project Officer. Some system managers were contacted to ascertain if multiple interfaces on one agreement were being counted as one interface or the number of files that were actually being exchanged.

4. Guidance on the required content of a Y2K interface agreement was reissued to system managers working on MOAs in December. DFAS-CL Director's memorandum of August 8, 1997 provided a sample format. This format was subsequently also posted on the DFAS website.

Adequate assessment - The following actions have been taken to ensure the adequacy of assessments being conducted.

1. The DFAS-CL Director directed a review of Y2K plans. The Y2K plans of all DFAS-CL critical systems were reviewed by the Information Management Office (DFAS-CL/MO). The review was to ensure that all system Y2K plans contained at least the minimum major milestones that had been mandated at previous Y2K Control Board meetings. The review also included a check on the sequence and logic of dates provided.

Additionally, our assessment/review process is considered continuous in that as additional refinements/changes are identified they are added to the plan and worked accordingly.

2. The DFAS-CL Director has continued with monthly Y2K Program Control Board meetings. She has used this forum for Y2K system status updates on specific systems and also to surface Y2K issues and problems. The meetings are also used to provide information updates on Y2K from a DFAS perspective.

3. The DFAS Y2K Management Plan, December 1997, has been distributed via electronic mail to the DFAS-CL management and the DFAS-CL system manager network.

Systems Reported as Compliant but not certified - The following actions have been taken to ensure the adequacy of test plans, test results, and certifications.

1. The DFAS-CL Y2K Project Officer issued a message on Test plans. The message includes what is expected in a test plan and referenced the relevant guidance document, the DFAS Y2K Management Plan. A sample test supplied by the DFAS Y2K POC was also distributed. Other examples of test plans were offered on request.

2. The test plans and test results for all DFAS-CL critical systems that have reached the stage when these documents have been produced, were collected in December 1997 by DFAS-CL/MO. A general review of the documents for adequacy was conducted.

3. The procedure that the DFAS-CL has followed with respect to Y2K Compliance Certification is that the document is submitted via the DFAS-CL Y2K Project Officer to the Director. The Project Officer reviews the document, discusses items with the system manager as necessary, and recommends disposition to Director. The DFAS-CL Director conducts an interview with the system manager and reviews the Y2K Compliance Certification document with that manager prior to signing the document.

Sandra Johnson
DFAS-CL Y2K
Project Coordinator

Appendix E. Report Distribution

Office of the Secretary of Defense

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)
Director, Defense Logistics Studies Information Exchange

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

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 Finance and Accounting Service Indianapolis 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

Part III - Management Comments

Defense Finance and Accounting Service Comments

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

DFAS-HQ/S

March 17, 1998

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: Audit Report on Year 2000 Initiatives at the Defense Finance and Accounting Service Cleveland Center (Project No. 7FG-0043)

In response to your memorandum dated January 27, 1998, subject as above, the audit report has been reviewed and the attached comments are provided for your consideration.

Any questions should be direct to the DFAS Year 2000 Project Officer, Mrs. Sharon Brustad, at 317-510-5647 (DSN 699-5647).

for C. Vance Kauzlarich
Director for Information and Technology

Attachment: As stated

1. Recommendation A.1: Direct system managers at the Defense Finance and Accounting Service Cleveland Center to fulfill the assessment phase exit criteria in the DoD Year 2000 Management Plan for systems reported as being in the renovation Phase.

DFAS Cleveland Response A.1: Concur. System managers will be directed to ensure they fulfill the assessment phase exit criteria in the DoD Year 2000 Management Plan. It is our belief that DFAS Cleveland met the minimum assessment phase exit criteria by using a combination of Corporate Level and System level planning and documentation. The renovation strategies were determined and reported on the DFAS Y2K Report. The DFAS validation strategy is documented in the DFAS Regulation 8000.1-R. The DFAS Cleveland system managers did comply with the guidance in the DFAS Year 2000 Executive Plan and with the guidance provided both verbally and in writing by the DFAS Year 2000 Project Officer.

2. Recommendation A.2: Direct system managers at the Defense Finance and Accounting Service Cleveland Center to meet all criteria in the DoD Year 2000 Management Plan for systems listed as Year 2000 compliant, including completion of the Defense Finance and Accounting Service compliance certification checklist, before reporting systems as compliant.

DFAS Cleveland Response A.2: Concur. DFAS systems were placed in the compliant category before the certification process was required. All of the DFAS Cleveland systems currently listed in the compliant category have been certified. System managers will complete the Defense Finance and Accounting Service compliance certification checklist before reporting systems as compliant.

3. Recommendation A.3: Establish a verification mechanism to ensure that systems are progressing as needed to meet the deadline and that information reported to DoD and Defense Finance and Accounting Service management is accurate, reliable, and reflects the status of each Defense Finance and Accounting Service system.

DFAS Cleveland Response A.3: Concur. The DFAS Cleveland Director will address the systems' status at the DFAS Cleveland Y2K Control Board meetings which are held monthly. This forum is used by the DFAS Cleveland Director to obtain detailed Year 2000 status updates on selected systems, to monitor progress on Y2K projects, to surface outstanding issues and concerns related to Y2K on any system, and to ensure that corrective actions are taken when problems arise.

4. Recommendation B.1: Establish a milestone for verification.

DFAS Cleveland Response B.1: Concur. Verification and correction of deficiencies identified with Year 2000 interface agreements should be completed on March 31, 1998.

5. Recommendation B.2: Perform the verification process to ensure that all interface agreements are complete and include the necessary elements.

DFAS Cleveland Response B.2: Concur. DFAS Cleveland management directed that the DFAS Cleveland system managers review all existing Year 2000 interface agreements for content/adequacy. The review includes: systems named with Y2K strategy, interface file(s) listed, number of input files, number of output files, interface file layout(s) attached or affected fields listed, interface strategy listed, schedule with target completion dates listed, manager names printed, signed by both parties, and POC information listed on attached sheet.

Audit Team Members

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

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