Audit Report

YEAR 2000 ISSUES WITHIN THE U.S. PACIFIC COMMAND'S AREA OF RESPONSIBILITY HAWAII INFORMATION TRANSFER SYSTEM

Report No. 99-085 February 22, 1999

Office of the Inspector General
Department of Defense

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Acronyms

DISA	Defense Information System Agency
HITS	Hawaii Information Transfer System
NCTAMS-PAC	Naval Computer and Telecommunications Area Master Station-Pacific
PACOM	U.S. Pacific Command
Y2K	Year 2000

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February 22, 1999

MEMORANDUM FOR U.S. COMMANDER IN CHIEF PACIFIC COMMAND
ASSISTANT SECRETARY OF DEFENSE (COMMAND, CONTROL, COMMUNICATIONS, AND INTELLIGENCE)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Audit Report on Year 2000 Issues Within the U.S. Pacific Command's Area of Responsibility-Hawaii Information Transfer System (Report No. 99-085)

We are providing this report for your information and use. This is a follow-on audit to Inspector General, DoD, Report No. 99-031, "U.S. Pacific Command Year 2000 Issues," November 3, 1998. Because this report contains no findings or recommendations, no comments were requested and none were received. Therefore, we are publishing this report in final form.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Robert M. Murrell at (703) 604-9210 (DSN 664-9210) (rmurrell@dodig.osd.mil) or Ms. Nancee K. Needham at (703) 604-9209 (DSN 664-9209) (nkneedham@dodig.osd.mil). See Appendix B for the report distribution. The audit team members are listed inside the back cover.

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Report No. 99-085 **February 22, 1999**
(Project No. 8CC-0049)

Year 2000 Issues Within the U.S. Pacific Command's Area of Responsibility Hawaii Information Transfer System

Executive Summary

Introduction. This is one in a series of reports being issued by the Inspector General, DoD, in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts to address the year 2000 computing challenge. For a listing of audit projects addressing the issue, see the year 2000 webpage on the IGnet at http://www.ignet.gov.

Objectives. The overall audit objective was to evaluate whether DoD adequately planned for and managed year 2000 risks to avoid disruptions to the U.S. Pacific Command mission. Specifically, we reviewed year 2000 risk assessments, contingency plans for mission critical systems, and continuity of operations plans to perform core mission requirements. The review included major DoD communications systems operating within the U.S. Pacific Command's area of responsibility.

Results. The Hawaii Information Transfer System (HITS) program managers, the Defense Information System Agency, and the Naval Computer and Telecommunications Area Master Station-Pacific recognized the need for contract clauses and procedures to ensure Y2K compliance for the HITS program. The HITS contractor was required to ensure that all hardware and software assets were Y2K compliant and the contract specified that there could be no additional charges to the government for Y2K upgrades. Further, the implementation of HITS Y2K upgrades to existing systems was on schedule.

Management Comments. We provided a draft of this report on January 15, 1999. Because this report contains no findings or recommendations, written comments were not required, and none were received. Therefore, we are publishing this report in final form.

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Background

The Executive Order, "Year 2000 Conversion," February 4, 1998, mandates that Federal agencies do what is necessary to ensure that no critical Federal program experiences disruption because of the year 2000 (Y2K) computing problem. The Executive Order also requires that the head of each agency ensure that efforts to address Y2K issues receive the highest priority.

The Secretary of Defense issued a memorandum "Year 2000 Compliance," on August 7, 1998, which defined that the Y2K computer problem as a critical national defense issue. The memorandum indicates that the Military Departments are responsible for ensuring that their list of mission-critical systems is accurately reported in the DoD Y2K database effective October 1, 1998. On August 24, 1998, the Deputy Secretary of Defense directed that the Military Departments provide plans for Y2K-related end-to-end testing of their respective functional processes by November 1, 1998. Public Law 105-271, "Year 2000 Information and Readiness Disclosure Act," October 19, 1998 is intended to encourage the disclosure and exchange of information about computer processing problems, solutions, test practices, test results, and related matters in connection with the transition to the year 2000.

U.S. Pacific Command. The U.S. Pacific Command (PACOM) is the largest of the nine unified commands in the Department of Defense. The PACOM area of responsibility includes 50 percent of the earth's surface and two-thirds of the world's population. It encompasses more than 100 million square miles, stretching from the west coast of North and South America to the east coast of Africa, and from the Arctic in the north to the Antarctic in the south. It also includes Alaska, Hawaii, and eight U.S. territories. The overall mission of PACOM is to promote peace, deter aggression, respond to crises, and, if necessary, fight and win to advance security and stability throughout the Asian-Pacific region.

The PACOM, located in Camp Smith, Hawaii, is supported by Component commands from each Service: the U.S. Army Pacific Command, U.S. Pacific Fleet Command, Marine Forces Pacific Command, and U.S. Pacific Air Force Command. In addition, PACOM exercises combatant control over four sub-unified commands within the Pacific region. The subunified commands are the U.S. Forces Japan, U.S. Forces Korea, Alaskan Command, and Special Operations Command Pacific.

Hawaii Information Transfer System (HITS). HITS will provide enhanced information transfer capabilities to DoD and certain other authorized users in the State of Hawaii, to include the eight primary islands. HITS will also provide interface with other DoD and public networks at designated gateways for worldwide access.

Once fully implemented, it will replace the existing Hawaii Area Wideband System, the Oahu Telephone System, the Defense Information System Network-Near Term and various other dedicated services for the State of Hawaii.

The existing systems are located on the island of Oahu and serve DoD users. The Hawaii Area Wideband System provides transmission services for point-to-point dedicated-service users, while the Oahu Telephone System provides total telephone services for all military and selected Federal government installations on Oahu. The Defense Information System Network-Near Term is the integration of DoD Component networks into a transmission backbone composed of smart multiplexers interconnected by government-owned and leased T-1 and T-3 circuits.

HITS will incorporate all other appropriate information transfer requirements including packet switched data and video teleconferencing into a single integrated system within the State of Hawaii and provide a common network management capability. DoD requirements for survivability, security, and assured service will also be met. Switches are located at 12 sites in the Hawaiian Islands providing service to 34,521 subscribers.

Objectives

The overall audit objective was to evaluate whether DoD adequately planned for and managed year 2000 risks to avoid disruptions to the U.S. Pacific Command mission. Specifically, we reviewed year 2000 risk assessments, contingency plans for mission critical systems, and continuity of operations plans to perform core mission requirements. The review included major DoD communications systems operating within the U.S. Pacific Command's area of responsibility.

Status of the Hawaii Information Transfer System (HITS) Y2K Program

The HITS program managers, the Defense Information System Agency and the Navy Computer and Telecommunications Area Master Station-Pacific (NCTAMS-PAC), recognized the need for contract clauses and procedures to ensure Y2K compliance for the HITS program. The HITS contractor was required to ensure that all hardware and software assets were Y2K compliant and the contract specified that there could be no additional charges to the government for Y2K upgrades. Further, the implementation of HITS Y2K upgrades to existing systems was on schedule.

Background

NCTAMS-PAC is located in Wahiawa, Hawaii and provides communications support to the U.S. Navy and DoD organizations in the Pacific Ocean region. In addition, the command provides:

- operational direction and management to all Naval Computer and Telecommunications System assets in the NCTAMS-PAC area of responsibility;
- management, operations and maintenance of Defense communication systems assets;
- management of cryptologic resources for Commander, Naval Security Group;
- operational direction and management of the DoD world-wide High Frequency Direction Finding System; and,
- a full range of automated data processing and information resource services to the Navy and other DoD organizations in the Pacific.

HITS Program Management

The HITS services are being acquired by the Defense Information Systems Agency (DISA), through the Defense Information Technology Contracting

Office–Pacific. Program management for HITS is provided by DISA-Pacific in Hawaii, using the NCTAMS-PAC as the on-island agent, with oversight from DISA headquarters and Assistant Secretary of Defense (Command, Control, Communications, and Intelligence). HITS users will include DoD facilities and ships ported in and visiting Hawaii.

The request for proposal was issued in November 1995 and called for both command, control, and administrative voice and data services for users. HITS will interface with existing and future worldwide DoD communications systems and will provide improved performance, enhanced services and reduce costs over the predecessor systems. The contract was awarded to the American Telephone and Telegraph Corporation in February 1997 and initial operating capability was completed in November 1997.

Contact Y2K Specifications

Y2K System Contract Clause. The contractor was required to ensure that all hardware and software assets were Y2K complaint. The HITS contractor guaranteed that the software; which is licensed to and used by the Government prior to, during, or after the calendar year 2000, include design and performance features so that the Government would not experience software abnormalities. The contract specified that software designed to ensure Y2K compatibility include date recognition, calculations that accommodate same century and multi-century formulas and date values, and data interface values that reflect the century. In addition, the contractor guaranteed that the Y2K leap year calculations would be accommodated and would not result in software or hardware failures. For example, all HITS switches are Y2K compliant.

Government Costs Avoidance. The contract clauses specified that Y2K upgrades were not to be separately priced. This means that any Y2K costs were to be included in the contractor's overall cost of doing business, and the Government would only pay service-based rates, such as monthly recurring charges per switched voice line. The Government, therefore, would not be charged for Y2K compliance adjustments.

New Systems from HITS Award. Additionally, since many of the system elements necessary to provide the required HITS service were acquired or newly installed by the contractor, those elements are Y2K compliant. The systems in place prior to award of the HITS contract, were at least 12 years old, and the contractor did not deem it appropriate to keep those system elements in place. The new system being installed by the contractor was based on Sun workstations, Pentium personal computers and commercial off-the-shelf software. Therefore, the installation of upgraded elements would automatically resolve the Y2K issues.

Conclusion

We commend DISA and NCTAMS-PAC program managers for ensuring Y2K compliance of the HITS program. The HITS request for proposal stated that the contractor was fully responsible for installing Y2K compliant system elements, and that any necessary upgrades were not to be separately priced. Consequently, the Government has not been charged additional costs to fund Y2K upgrades. The HITS program is currently on schedule and testing will be provided that will result in the system certifications.

Appendix A. Audit Process

This is one in a series of reports being issued by the Inspector General, DoD, in accordance with 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 web page on the IGnet at http://www.ignet.gov.

Scope

We reviewed and evaluated the Hawaii Information Transfer System. We met with NCTAMS-PAC officials to obtain Y2K compliance status of the mission critical systems. During our meetings, we obtained data pertaining to the HITS program.

DoD-Wide Corporate Level Government Performance and Results Act Goals. In response to the Government Performance and Results Act, the Department of Defense has established 6 DoD-wide corporate-level performance objectives and 14 goals for meeting the objectives. This report pertains to achievement of the following objective and goal.

- **Objective**: Prepare now for an uncertain future.
  Goal: Pursue a focused modernization effort that maintains U.S. qualitative superiority in key war fighting capabilities. **(DoD-3)**

DoD Functional Area Reform Goals. Most major DoD functional areas have also established performance improvement reform objectives and goals. This report pertains to achievement of the following functional area objectives and goals.

- **Information Technology Management Functional Area.**
  Objective: Become a mission partner.
  Goal: Serve mission information users as customers. **(ITM-1.2)**

- **Information Technology Management Functional Area.**
  Objective: Provide services that satisfy customer information needs.
  Goal: Modernize and integrate DoD information infrastructure. **(ITM-2.2)**

- **Information Technology Management Functional Area.**
  Objective: Provide services that satisfy customer information needs.
  Goal: Upgrade technology base. **(ITM-2.3)**

General Accounting Office High-Risk Area. In its identification of risk areas, the General Accounting Office has specifically designated risk in resolution of the Y2K problem as high. This report provides coverage of that problem and of the overall Information Management and Technology high-risk area.

Methodology

Audit Type, Dates, and Standards. We performed this program audit from September 1998 to December 1998, in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. We did not use computer-processed data to perform this audit.

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

Management Control Program. We did not review the management control program related to the overall audit objective because DoD recognized the Y2K issue as a material management control weakness area in the FY 1997 Annual Statement of Assurance.

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 reviewed on the Internet at http://www.gao.gov. Inspector General, DoD, reports can be reviewed on the Internet at http://www.dodig.osd.mil.

Appendix B. Report Distribution

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- Defense Science Board

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Under Secretary of Defense (Comptroller)
- Deputy Chief Financial Officer
- Deputy Comptroller (Program/Budget)
- Director, Program Analysis and Evaluation

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Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)
- Deputy Assistant Secretary of Defense (Command, Control, Communications, Intelligence, Surveillance, Reconnaissance, and Space Systems)
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Inspector General, Department of the Army
Auditor General, Department of the Army

Department of the Navy

Assistant Secretary of the Navy (Financial Management and Comptroller)
Chief Information Officer, Navy
Inspector General, Department of the Navy
Inspector General, Navy Computers and Telecommunications Command
Auditor General, Department of the Navy

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Chief Information Officer, Air Force
Inspector General, Department of the Air Force
Auditor General, Department of the Air Force

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Commander in Chief, U.S. Pacific Command
Commander in Chief, U.S. Atlantic Command
Commander in Chief, U.S. Central Command
Commander In Chief, U.S. Special Operations Command

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  Chief Information Officer, Defense Information Systems Agency
  Inspector General, Defense Information Systems Agency
  United Kingdom Liaison Officer, Defense Information Systems Agency
Director, National Security Agency
  Inspector General, National Security Agency
Inspector General, Defense Intelligence Agency
Inspector General, National Imagery and Mapping Agency
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Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
Senate Special Committee on the Year 2000 Technology Problem
House Committee on Appropriations
House Committee on Armed Services
House Subcommittee on National Security, Committee on Appropriations
House Committee on Government Reform
House Subcommittee on Government Management, Information, and Technology, Committee on Government Reform
House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight

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