

OFFICE OF THE INSPECTOR GENERAL

CONSOLIDATED AREA TELEPHONE SYSTEM-SAN FRANCISCO AREA

Report No. 96-013

October 23, 1995

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Department of Defense

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Acronyms

Consolidated Area Telephone System Consolidated Area Telephone Office

CATS CATO



INSPECTOR GENERAL DEPARTMENT OF DEFENSE 400 ARMY NAVY DRIVE ARLINGTON, VIRGINIA 22202-2884



October 23, 1995

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

SUBJECT: Audit Report on Consolidated Area Telephone System-San Francisco Area (Report No. 96-013)

This report is provided for your information and use. We performed the audit in response to a complaint to the Defense Hotline.

Comments on this report conformed to the requirements of DoD Directive 7650.3 and left no unresolved issues. Therefore, no additional comments are required.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Robert M. Murrell, Audit Program Director, at (703) 604-9507 (DSN 664-9507) or Ms. Annie L. Sellers, Audit Program Manager, at (703) 604-9534 (DSN 664-9534). The distribution of this report is listed in Appendix F. The audit team members are listed inside the back cover.

Savid H. Steensma

David K. Steensma Deputy Assistant Inspector General for Auditing

Office of the Inspector General, DoD

Report No. 96-013 Project No. 5RD-8006

October 23, 1995

Consolidated Area Telephone System-San Francisco Area

Executive Summary

Introduction. We performed the audit in response to a complaint to the Defense Hotline. The Hotline case was initially assigned to the Inspector General, Defense Information Systems Agency, but was referred to the Inspector General, DoD, on September 14, 1994. The complainant alleged that AT&T (formerly the American Telephone and Telegraph Company) excessively charged for telecommunications equipment and services for the Navy Public Works Center Consolidated Area Telephone Office, San Francisco, California. The complainant also alleged that, in turn, the Consolidated Area Telephone Office charged excessive rates to subscribers of the Consolidated Area Telephone System (CATS).

Objective. The primary audit objective was to evaluate the validity of the allegations to the Defense Hotline. We also determined whether the CATS contract for switched telecommunications services (telecommunications transmissions that are routed through an electronic device that selects the appropriate path for the transmission) is cost-effective as compared to available alternatives in the San Francisco area. Also, we evaluated the Navy Public Works Center management control program as it related to the audit objectives.

Audit Results. The audit did not substantiate that excessive charges occurred. The complainant used cost comparisons that were based on basic rates for single service rather than the cost of services and equipment acquired through the CATS contract. See Appendix C.

However, in response to base realignment and closure actions, the Navy has not adequately assessed the future cost of base telecommunications maintenance requirements for the CATS equipment in the San Francisco area. As a result, the Navy could spend up to \$6.4 million on the current contract to maintain CATS equipment from 1995 through February 1999. Additionally, the Navy cannot ensure that CATS customers will receive the most economical rates for telecommunication services. Recommendations, if implemented, could result in monetary benefits to the users of the CATS. We could not determine the amount of resultant monetary benefits.

Summary of Recommendations. We recommend that the Navy assess equipment maintenance requirements; perform a market survey and an economic analysis on maintenance alternatives; and terminate the CATS contract for the convenience of the Government, if it is economically feasible.

Management Comments. Management responsibility for CATS San Francisco was transferred from the Naval Facilities Engineering Command to the Naval Computer and Telecommunications Command as of October 1, 1995. The Navy concurred with the finding and recommendations. The Navy plans to perform an assessment of maintenance requirements for equipment under the CATS contract and to perform an economic analysis of alternative maintenance schemes. Management comments are discussed in Part I, and the complete text of the comments is in Part III.

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Part I - Audit Results

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Audit Results

Audit Background

Consolidated Area Telephone System. The Consolidated Area Telephone System (CATS) is a complete telephone system, operated in the San Francisco area, that includes telephones, switches (see Appendix B for a glossary of technical terms used in the report), outside telephone instruments, connections to long-haul services, and a telecommunications network managed by the Navy Public Works Center, Naval Facilities Engineering Command.

The CATS contract is a requirements, indefinite delivery contract awarded by the Naval Facilities Engineering Command to AT&T (formerly the American Telephone and Telegraph Company) Federal Systems, on December 30, 1986, for \$92.2 million. The purpose of the contract is to provide and maintain a complete, end-to-end, digitally switched telephone system to 13 naval installations in the San Francisco area. The contract also called for a base interconnect system (CATS Network) and included construction of a Consolidated Area Telephone Office building to house equipment. The 10-year life of the lease-to-purchase contract, which began with the acceptance of the first switch by the Navy on February 14, 1989, will expire on February 14, Most costs were amortized over the life of the contract with the 1999. exception of follow-on installation charges and maintenance costs. Follow-on charges are payable in full upon completion of the follow-on work. Maintenance charges are paid monthly through contract completion or until disconnection of equipment.

Consolidated Area Telephone Office. The Navy Public Works Center Consolidated Area Telephone Office (CATO) was chartered to conduct business under the Defense Business Operations Fund as a single utility operating on a fee-for-service basis. The mission of CATO is to administer the CATS contract and provide timely, cost-effective telecommunications services to 13 naval installations and to support the Pacific Fleet, within the terms of the CATS contract.

Complaints to the Defense Hotline. The Defense Hotline received allegations from an anonymous source concerning the CATS contract. The complainant alleged that AT&T excessively charged for telecommunications equipment and services for the Navy Public Works Center CATO. The complainant also alleged that, in turn, the CATO charged excessive rates to subscribers of the CATS.

Audit Objectives

The primary objective of the audit was to determine the validity of the allegations to the Defense Hotline. We also determined whether the CATS contract for switched telecommunications services is cost-effective as compared

to alternatives available in the San Francisco area. Also, we evaluated the Navy Public Works Center management control program as it related to the audit objective.

See Appendix A for a discussion of the review of the audit scope and methodology, the results of the review of the management control program, and the prior audit coverage related to the audit objectives. Appendix C provides details on the specific allegations and the results of our audit pertaining to each.

Maintenance Requirements of the Consolidated Area Telephone System Contract

The Navy Public Works Center is maintaining the CATS contract without considering how base realignment and closure actions and future costs of base telecommunications maintenance requirements for CATS equipment would affect the need for the contract in the San Francisco Bay area. The Navy Public Works Center performed neither a market survey nor an economic analysis in compliance with DoD policy to consider other more cost-effective alternatives that could satisfy maintenance requirements for the CATS equipment. As a result, the Navy could spend up to \$6.4 million on the current contract to maintain CATS equipment from 1995 through February 1999. Further, the Navy cannot ensure that CATS customers will receive the most economical rates for telecommunication services.

Base Telecommunications Equipment and Services

DoD Directive 4640.13, "Management of Base and Long-Haul Telecommunications Equipment and Services," December 5, 1991, prescribes DoD policy for the management of base and long-haul telecommunications equipment and services. DoD Directive 4640.13 establishes policy, assigns responsibilities, and prescribes procedures to ensure the effective, efficient, and economical use of base and long-haul telecommunications and services. DoD Instruction 4640.14, "Base and Long-Haul Telecommunications Equipment and Services," December 6, 1991, prescribes how DoD policy on the management of base and long-haul telecommunications is to be implemented. DoD Instruction 4640.14 requires that a lease-versus-purchase analysis be performed DoD determine the most cost-effective acquisition strategy. to Instruction 4640.14 further requires that DoD Components conduct periodic (at least once a year) market surveys to verify that the most economical equipment and services are selected to satisfy base telecommunications requirements. DoD Instruction 4640.14 also requires that uneconomical contracts be terminated.

CATS Customer Rates

Establishing Rates for CATS Customers. Telecommunications rates were established for the CATS customers with the goal of matching the annual invoices from the contractor. Matching those charges assured full payment of the AT&T capital investment by the end of the contract life. The Comptroller of the Navy Public Works Center established the CATO rates and prorated them evenly to each customer to recoup the cost of the equipment and services provided by the CATS contract as well as the general and administrative costs for the operation and maintenance of the CATO. However, this process failed to serve the customers properly in that the monthly telecommunication rates were too high. In 1994, as a result of a completed economic analysis, the Navy Public Works Center determined that a buyout of the equipment would minimize the cost for providing telecommunications services and support to its customers, the CATS users, and decided to exercise the Government lease-to-purchase option.

Maintenance Requirements as a Result of the Base Realignment and Closure Process. Although the buyout actions prevented an increase in the customer rates, the Navy Public Works Center did not assess the need for maintenance requirements for equipment 7 days a week, 24-hours a day as provided by the contract. Also, the Navy Public Works Center did not perform an economic analysis to determine whether maintenance under the CATS contract is cost-effective as compared to other alternatives. Further, because of base closures in response to the Defense base realignment and closure process, only one of the original installations served by CATS was slated to remain open through the end of the contract, February 1999.

From FY 1993 to February 1995, the number of telephone lines decreased from 26,747 to 20,157 as the number of installation personnel decreased. CATO estimated that the number of telephone lines would decrease to 12,894 by the end of FY 1995, and to 4,702 by the end of FY 1997. As the installations close, the Comptroller of the Navy Public Works Center projected that the customer rate would increase. As of February 1995, the maintenance for CATS had a remaining contract value of \$6.4 million (through February 1999). We believe that reduced costs could be realized if the Navy Public Works Center We also believe that a more reassesses future maintenance requirements. cost-effective maintenance alternative exists, such as a time-and-materials contract or a labor-hour contract. A time-and-materials contract or a labor-hour contract provide for the acquisition of supplies or services on the basis of direct labor hours at specified fixed hourly rates and could reduce the number of hours expended on a 24-hour maintenance contract. A maintenance alternative could result in funds put to better use; we could not determine the amount at this time.

Recommendations and Management Comments

We recommend that the Commander, Naval Facilities Engineering Command:

1. Assess the need for the 24-hour maintenance of the telecommunications equipment at installations receiving maintenance service under the Consolidated Area Telephone System contract, taking into consideration the changes in telecommunications requirements because of the base realignment and closure process, and identify the technical specifications for telecommunications equipment and services to satisfy those requirements.

2. Perform a market survey and an economic analysis of the alternatives for maintaining Consolidated Area Telephone System equipment in compliance with DoD Instruction 4640.14 and select the most economically and technically feasible maintenance service.

3. Initiate contractual action for the selected base communications maintenance alternative, provided that life-cycle termination costs of the Consolidated Area Telephone System contract do not exceed the cost of the selected alternative maintenance for an equivalent period of time.

4. Terminate the Consolidated Area Telephone System contract, provided the requirements in Recommendation 3 are met.

Navy Comments. Management responsibility for CATS San Francisco was transferred from the Naval Facilities Engineering Command to the Naval Computer and Telecommunications Command as of October 1, 1995. The Navy concurred with the finding and recommendations. The Navy plans to perform an assessment of maintenance requirements for equipment under the CATS contract and to perform an economic analysis of alternative maintenance schemes (see Part III).

Part II - Additional Information

Appendix A. Scope and Methodology

Scope and Methodology

Reason for Audit. We performed the audit in response to Defense Hotline Action Case No. 94 L-57899, August 19, 1994. The Hotline case was initially assigned to the Inspector General, Defense Information Systems Agency, but was referred to the Inspector General, DoD, on September 14, 1994. The complainant alleged that the AT&T (formerly the American Telephone and Telegraph Company) excessively charged for telecommunications equipment and services for the Navy Public Works Center, Consolidated Area Telephone Office, San Francisco, California. The complainant also alleged that, in turn, the Consolidated Area Telephone Office charged excessive rates to subscribers of the Consolidated Area Telephone System (CATS).

Methodology. To determine whether the Hotline allegations had merit, we reviewed documentation, dated from October 1994 through April 1995, relating to the Consolidated Area Telephone System (CATS) contract, and the operation, maintenance, and support of the CATS. We analyzed contract costs and Consolidated Area Telephone Office (CATO) rates. We evaluated the costs for central exchange service lines and compared those costs to the CATS costs. We reviewed FYs 1994 through 1995 billings sent to the CATS customers. We interviewed the contracting officer of the Navy Public Works Center and CATO Office, the Comptroller of the Navy Public Works Center, telecommunications managers at CATO, and users of CATS in the San Francisco area. We also interviewed officials at the Naval Computer and Telecommunications Station, San Diego. As of February 1994, the CATS operations and functions (under the management of the Navy Public Works Center, San Francisco) were transferred to the Naval Computer and Telecommunications Station, San Diego.

Audit Period and Standards. This economy and efficiency audit was made from January through April 1995, in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD. The audit included a review of management controls considered necessary. We did not rely on computer-processed data or statistical sampling procedures to achieve the audit objectives. The organizations visited or contacted during the audit are listed in Appendix E.

Management Control Program

DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987, requires DoD organizations to implement a comprehensive system of

management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of the controls.

Scope of Review of the Management Control Program. We evaluated the Navy Public Works Center management controls over the administration of the CATS contract. Specifically, we reviewed the Navy Public Works Center management controls over maintaining contract files, equipment inventory records, billings, and expenditures. We did not assess the adequacy of the management self-evaluation of those controls.

Adequacy of Management Controls. The management controls we reviewed were adequate in that we identified no material management control weaknesses.

Prior Audits and Other Reviews

No audit work on the audit subject has been conducted within the last 5 years.

Appendix B. Glossary

Circuit. A communication capability between two or more users, between a user terminal and a switching terminal, or between two switches.

Private Branch Exchange. A private telephone switching system that services a single organization or area where service requires connection to another telephone exchange for long-distance capabilities.

Switch. A mechanical, electrical, or electronic device that opens or closes circuits, completes or breaks an electrical path, or selects paths or circuits for routing telecommunications transmissions.

Appendix C. Hotline Allegations and Audit Results

The allegations concerning the charges for telecommunications services and the audit results pertaining to each allegation are provided below.

Allegation. The AT&T charges \$45.60 per month per telephone number. The charge will increase as installations in the San Francisco Bay area are closed. If the telephone service is obtained from Pacific Bell, the charge would be only \$8.35 per month per telephone number.

Audit Result. The allegation was not substantiated. The Consolidated Area Telephone Office (CATO) was chartered to conduct business under the Defense Business Operations Fund as a single telecommunications utility operating on a fee-for-service basis. All Consolidated Area Telephone Service (CATS) customers pay CATO, not AT&T, for telecommunications services based on the total cost of the resources required to provide those services and the forecasted customer use of those services. The Pacific Bell charge of \$8.35 per month was a basic rate for a voice line and was not comparable to the CATO rate. The CATO rate was a contract rate that included access to Defense Switched Network and Federal Telecommunications System 2000, as well as features such as call forwarding, busy call forwarding no answer, and message waiting. The Pacific Bell rate does not include access to the Defense Switched Network or Federal Telecommunications System 2000 or any additional features.

Allegation. The AT&T charges \$30.60 each month per pair of wires for nonswitched circuits. Because it takes two pairs of wires to make a complete circuit, the total cost is \$122.40 per month per circuit. Additional costs are also paid to the telephone company (the local exchange carrier) that runs the circuit to the base (from originating base minimum point of entry to destination base minimum point of entry).

Audit Result. The allegation was not substantiated. A nonswitched circuit bypasses the CATS private branch exchange and directly accesses the local exchange carrier switch outside a base for a dial tone. To connect the nonswitched circuit to the user, AT&T provides the cross-connect from the main point of entry to the main distribution frame (which connects the circuit to the CATS cable plant). While AT&T charges a one-time cost of \$94 for the cross-connect, which is paid for by the user, the user also pays a monthly rate to the local exchange carrier for running the circuit to the main point of entry. In addition, the user pays CATO \$30.60 per month for the use of the CATS cable. Therefore, the total cost that the user pays to AT&T is a one-time charge of \$94.00 not \$122.40 per month.

Allegation. The AT&T charges (a one-time charge) for wire at the rate of \$0.51 per foot (for a minimum of 150 feet) from the phone closet to the location of the telephone or circuit. The same wire from a local vendor is only \$.05 per foot (a one-time charge).

Audit Result. The allegation was not substantiated. The AT&T one-time charge of \$0.51 per foot includes the cost of installation (cross-connect from the intermediary distribution frame to the main distribution frame) to make the wire active. The local vendor charge of \$.05 per foot did not include installation costs. The AT&T and local vendor charges could not be compared because of the different cost basis for each charge.

Allegation. The AT&T charges (a one-time charge) \$18.47 per telephone jack. The same jack can be bought from a local vendor for only \$3.00.

Audit Result. The allegation was not substantiated. To have a dial tone, the jack must be installed with cross-connecting wires to and from the intermediary distribution frame. The charges for the telephone jacks are not comparable because the AT&T charge of \$18.47 includes the cost for installation, while the jack bought from a local vendor for \$3.00 does not include installation.

Allegation. The AT&T takes 3 to 5 months to reflect credits for overcharges on circuits. The AT&T also sometimes bills for some nonswitched circuits twice. Once a double billing is noted, AT&T takes 2 months to correct the billing.

Audit Result. The allegation was not substantiated. The review of AT&T monthly bills showed no evidence of overcharges.

Appendix D. Summary of Potential Benefits Resulting From Audit

Recommendation Reference	Description of Benefit	Amount and Type of Benefit
1. and 2.	Program Results, Compliance, and Management Controls. Improves effectiveness and efficiency by assessing the need for 24-hour maintenance, performing a market survey and an economic analysis, and selecting the most economically and technically feasible maintenance service.	Nonmonetary.
3. and 4.	Program Results, Compliance, and Management Controls. Improves effectiveness and efficiency by initiating a contractual action for a selected maintenance alternative and terminating the 24-hour maintenance contract.	Undeterminable. The monetary benefits are undeterminable because the extent of program efficiencies that may result from terminating and replacing the current 24-hour maintenance contract with a selected maintenance alternative has not yet been determined.

Appendix E. Organizations Visited or Contacted

Department of the Navy

Headquarters, Naval Facilities Engineering Command, Alexandria, VA
Navy Public Works Center, San Francisco, CA
Consolidated Area Telephone Office, San Francisco, CA
Headquarters, Naval Computer and Telecommunications Command, Washington, DC
Naval Computer and Telecommunications Station, San Diego, CA

Defense Agencies

Defense Information Systems Agency, Washington, DC Defense Information Services Organization, Denver, CO Naval Telecommunications Certification Office, Washington, DC Defense Information Processing Center, Naval Air Station, Alameda, CA

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Department of the Army

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Department of the Navy

Assistant Secretary of the Navy (Financial Management and Comptroller) Auditor General, Department of the Navy Commander, Naval Facilities Engineering Command

Department of the Air Force

Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Contract Audit Agency Director, Defense Information Systems Agency Director, Defense Logistics Agency Director, National Security Agency Inspector General, National Security Agency

Non-Defense Federal Organizations

Office of Management and Budget

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

Appendix F. Report Distribution

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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 National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight

House Committee on National Security

Part III - Management Comments

Department of the Navy Comments

DEPARTMENT OF THE NAVY OFFICE OF THE ASSISTANT SECRETARY RESEARCH, DEVELOPMENT AND ACQUISITION 1000 NAVY PENTAGON WASHINGTON DC 20350-1000 03 OCT 1995 MEMORANDUM FOR DEPARTMENT OF DEFENSE ASSISTANT INSPECTOR GENERAL FOR AUDITING Dodig draft report of june 30, 1995 on consolidated area telephone system-san francisco area (project no. Subj: 5RD-8006) Ref: (a) DoDIG memo of 30 Jun 95 (1) Department of the Navy Response to DoDIG Draft Report of June 30, 1995 on Consolidated Area Encl: Telephone System-San Francisco Area (Project No. 5RD-8006) I am responding to the draft audit report forwarded by reference (a) concerning the evaluation of Consolidated Area Telephone System (CATS), San Francisco Area. The Department of the Navy response is provided at enclosure (1). We concur with the draft report findings and recommendations. As outlined in the enclosed comments, the Department is planning specific actions to determine appropriate requirements and pursue economic maintenance alternatives to the CATS. J. P. DAVIDSON Rear Admiral, SC, USN Principal Assistant for Information Resources Management Copy to: NAVINSGEN Office of Financial Operations (FMO-13) COMNISMC CNO (N6) COMNAVFACENGCOM COMNAVCOMTELCOM

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Department of the Navy Comments



Audit Team Members

This report was prepared by the Readiness and Operational Support Directorate, Office of the Assistant Inspector General for Auditing, DoD.

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