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REPORT TO THE CONGRESS



Economies Available Through Increased Use Of The Federal Telecommunications System By Military Installations

B-146864

Department of Defense
General Services Administration

**BY THE COMPTROLLER GENERAL
OF THE UNITED STATES**

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AUG 27 1972



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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C To the President of the Senate and the
Speaker of the House of Representatives

This is our report on economies available through increased use of the Federal Telecommunications System by military installations.

Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget; the Director, Office of Telecommunications Policy; the Acting Administrator of General Services; the Secretary of Defense; the Secretaries of the Army, Navy, and Air Force; and the Director, Defense Communications Agency.

A handwritten signature in cursive script that reads "James B. Stacks".

Comptroller General
of the United States

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ABBREVIATIONS

AUTOVON	Automatic Voice Network
CONUS	continental United States
DOD	Department of Defense
FTS	Federal Telecommunications System
GAO	General Accounting Office
GSA	General Services Administration
NCS	National Communications System
WATS	Wide Area Telephone Service

D I G E S T

WHY THE REVIEW WAS MADE

In 1963, the President directed establishment of a unified National Communications System (NCS). In its report entitled "Review of Status of Development Toward Establishment of a Unified National Communications System" (B-166655, July 14, 1969), the General Accounting Office (GAO) pointed out that, although some progress had been made, much remained to be done if the NCS was to achieve its objectives of economies and improvements in communications for the Federal Government.

Currently, however, the Federal Telecommunications System (FTS), managed by the General Services Administration (GSA), and the Automatic Voice Network (AUTOVON), managed by the Department of Defense (DOD), continue to operate independently with only tie-line service at certain locations between these two major Government voice networks. Annual operating costs are about \$129 million for the FTS voice network and about \$168 million for AUTOVON.

GAO reviewed DOD policies and procedures concerning the use of GSA-managed FTS intercity telephone service. The review was made to determine the feasibility and cost effectiveness of increased use of such service by DOD installations, in lieu of more expensive commercial service.

FINDINGS AND CONCLUSIONS

Expanded use of FTS service by DOD installations in lieu of commercial long-distance service is feasible and can result in substantial savings to the Government.

DOD's procedures and practices generally preclude the extension of AUTOVON service to non-network telephones. As a result, a large number of long-distance calls are completed over commercial facilities. (See p. 4.)

DOD is currently a subscriber to FTS intercity service and is one of the largest individual users, accounting for about 11 percent of the traffic. In addition, GSA has installed inward-only lines, at no cost to DOD, to about 70 DOD installations which are not FTS subscribers. GSA determined that providing these lines is less costly to the Government than using commercial toll service to these locations. (See p. 4.)

GAO found that:

- GSA is willing and able to handle the additional DOD telephone traffic on FTS and that implementation procedures are relatively simple. (See p. 8.)
- There are adequate means for control of access to FTS service by DOD users. (See p. 9.)
- The Government could have saved an estimated \$226,000 annually by using FTS rather than commercial service at the four military installations reviewed. (See p. 7.)
- Use of FTS service in lieu of commercial service by the 70 DOD installations which currently have FTS inward-only service could result in savings of several million dollars annually. The savings may be considerably greater because more than 800 DOD installations in the United States are AUTOVON subscribers. (See p. 8.)

RECOMMENDATIONS AND SUGGESTIONS

Because DOD and GSA have initiated operational tests of the use of FTS by DOD in lieu of commercial toll calls, GAO has no recommendations, pending completion of the tests and its evaluation of the results of the tests. (See p. 15.)

AGENCY ACTIONS AND UNRESOLVED ISSUES

The tests, starting on July 1, 1972, at seven to nine military installations, include three of the four reviewed by GAO. The objectives of the tests are (1) to determine the cost effectiveness of FTS at the selected DOD installations and the best means of providing long-distance telephone services and (2) to develop guidelines for selection of military installations where FTS service should be provided in lieu of commercial long-distance telephone service. (See p. 14.)

MATTERS FOR CONSIDERATION BY THE CONGRESS

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The Armed Services Investigating Subcommittee of the House Armed Services Committee, the House Appropriations Committee, and other committees and subcommittees of the Congress have expressed concern over the high and increasing costs of DOD communications. This report apprises those committees and subcommittees of current efforts by GSA and DOD to determine the feasibility and economy of expanded use of the FTS by DOD and to prepare the groundwork for more extensive use of the GSA-managed telecommunications resources.

CHAPTER 1

INTRODUCTION

BACKGROUND

In 1963, the President directed the establishment of a unified National Communications System (NCS) with the objective of providing necessary communications for the Federal Government under all conditions ranging from normal situations to national emergencies and international crises. He directed that the NCS:

"*** shall be established and developed by linking together, improving, and extending on an evolutionary basis the communications facilities and components of the various Federal agencies."

In our report entitled "Review of Status of Development Toward Establishment of a Unified National Communications System" (B-166655, July 14, 1969), we pointed out that although some progress had been made, much remained to be done if the NCS was to properly achieve its objectives of economies and improvements in communications. We also pointed out the perpetuation, and even proliferation, of networks used largely for the accomplishment of individual agency missions. Currently, however, the Federal Telecommunications System (FTS), managed by the General Services Administration (GSA), and the Automatic Voice Network (AUTOVON), managed by the Department of Defense (DOD), continue to operate independently with only tie-line service at certain locations between these two major Government voice networks.

The FTS includes an intercity telephone network that serves executive agencies and departments in nearly 500 cities. It can be used to call any telephone in the system, as well as all commercial telephones in the 50 States, Puerto Rico, the Virgin Islands, and Canada. Annual operating costs for the FTS intercity and local voice programs are about \$129 million.

AUTOVON is DOD's principal long-distance telephone system. Annual operating costs of AUTOVON have been estimated to be about \$168 million. Although some DOD installations will transfer incoming AUTOVON calls to commercial telephones within their local dialing areas, AUTOVON is generally used to call other AUTOVON telephones. As a result, DOD long-distance calls to non-AUTOVON numbers are often placed by using commercial facilities.

It should be noted that some DOD installations use FTS; in fact, DOD is one of the largest individual users, accounting for about 11 percent of the total FTS traffic. Certain DOD installations, which are regular subscribers to the FTS services, have the capability to make and receive calls through the system. At about 70 DOD installations which are not FTS subscribers, GSA has installed inward-only access lines at no cost to DOD. GSA has determined that providing these inward-only lines is more economical than using commercial toll service to complete FTS calls to those locations.

SCOPE

Our review was concerned with potential economies available to the Government by replacing some of the DOD commercial long-distance telephone service with FTS service.

A detailed review was conducted in California at the Presidio of San Francisco, the San Francisco Procurement Agency, the Mare Island Naval Shipyard, and McClellan Air Force Base. Additional work was performed at Richards-Gebaur Air Force Base, Missouri; GSA Headquarters in Washington, D.C.; GSA Region 9 offices in San Francisco; the Office of the Chief of Naval Operations, Washington, D.C.; and other minor DOD activities.

CHAPTER 2

SAVINGS AVAILABLE THROUGH THE USE OF FTS

IN LIEU OF COMMERCIAL SERVICE

AUTOVON does not satisfy the voice communications requirements of many DOD activities. As a result, a large number of long-distance calls to non-DOD installations are completed over commercial facilities, including WATS.¹ At the four installations reviewed, we estimate that the Government could have saved about \$226,000 a year by using FTS in lieu of such commercial service. This represents about 60 percent of the total projected annual cost (\$366,000) of commercial service at the four installations.

COMPARISON OF FTS AND COMMERCIAL SERVICE COSTS

We examined all toll and WATS calls for a 3-month period at each of the four installations reviewed to determine the extent to which commercial toll calls could be placed over FTS at a lower cost to the Government. Unofficial calls and calls not eligible for FTS (tolls of 20 cents or less, collect calls, credit-card calls, third-party calls,² calls outside of the continental United States (CONUS), and message-unit calls³) were eliminated. The remaining calls were considered to be FTS eligible and were used in our economic analyses. (See schs. 1 to 4.)

¹Wide Area Telephone Service (WATS) is a service which allows subscribers to make an unlimited number of long-distance calls within a certain region (State or group of States) for a flat monthly rate.

²Third-party calls are calls which are charged to a telephone not involved in the call.

³Message-unit calls are calls from business phones to locations outside the normal calling area; they are not considered long-distance calls.

Our analyses were based on standard analysis procedures of the Transportation and Communications Service, GSA. These procedures are predicated on the following assumptions.

1. The average FTS call requires use of one interswitch, or backbone facility, which consists of two switches and the trunk or circuit between them. Further, the average overall interswitch facility costs are equal for each location.
2. The average FTS call requires two access facilities. An access facility consists of a circuit and termination equipment or that equipment necessary to interface the customer switchboard with the FTS system.
3. The grade of service is P.02 (two out of 100 calls attempted are not completed).
4. The average duration of a call is 6 minutes.

The estimated monthly recurring cost of providing FTS service at the locations reviewed was determined as follows:

1. The average monthly call volume was computed from the commercial calls which were considered eligible for FTS.
2. The average monthly call volume was increased by a 20-percent stimulation factor to account for anticipated increased system usage when the commercial toll charges were eliminated.
3. The monthly potential call volume, including that generated by the stimulation factor, was multiplied by 26.4 cents a call, which was GSA's estimated interswitch cost factor.
4. The cost of FTS access facilities required to carry each installation's potential call volume was computed by using current Public Utility Commission-approved tariff rates.

5. The sum of the access facility and interswitch costs comprised the total monthly cost for the first year of FTS service. Any other rental or purchase costs incidental to the installation of FTS would be paid by GSA and would be reflected in the interswitch cost factor.

The difference between the computed FTS costs and the monthly commercial costs for those calls that were eligible to use FTS represents the savings available through the use of the FTS. Those calls not eligible for FTS would continue to be placed commercially.

Our review at the four DOD installations showed that the projected annual call volume indicated below could have been placed over the FTS system at an estimated savings to the Government of about \$226,000 a year, or over 60 percent of the projected annual commercial cost. The monthly estimated savings computed in schedules 1 through 4 are summarized and projected to an annual basis below.

	Average monthly commercial calls which were FTS eligible		Monthly FTS cost	Savings to the Government through use of FTS
	Number	Commercial cost		
Presidio of San Francisco	2,255	\$ 4,917	\$ 1,153	\$ 3,764
Mare Island Naval Shipyard	3,607	10,556 ^a	3,161	7,395
San Francisco Procurement Agency	2,435	5,275	1,888	3,387
McClellan Air Force Base	<u>5,951</u>	<u>9,736</u> ^b	<u>5,407</u>	<u>4,329</u>
Monthly total	<u>14,248</u>	<u>\$ 30,484</u>	<u>\$ 11,609</u>	<u>\$ 18,875</u>
Projected annual total	<u>170,976</u>	<u>\$365,808</u>	<u>\$139,308</u>	<u>\$226,500</u>

^aIncludes charges of \$4,494 for 1,730 interstate WATS calls.

^bIncludes charges of \$9,500 for 5,850 interstate WATS calls.

COSTS TO SUBSCRIBER

We recognize that the estimated savings of about \$226,000 comprise the savings to the Government rather than to the individual agency. GSA bills its customers at its estimated average cost for a call, whether or not the cost to service a particular customer is more or less than average. In this case, we estimated that DOD would pay about \$186,000 (170,976 calls, multiplied by the GSA's fiscal year 1971 estimate of 90.5 cents a call, multiplied by the stimulation factor of 1.20), or a saving of about \$180,000 annually from our projected annual commercial costs of about \$366,000.

POTENTIAL FOR SAVINGS THROUGH USE OF FTS

About 70 military installations have inward-only FTS service, including three of the four locations where we made our review. This service is being provided without charge to DOD because it is more economical for GSA than for FTS operators to handle such calls as commercial tolls. Indications are, therefore, that there may also be considerable long-distance toll traffic originating from these locations, as was the condition at the three installations referred to above. The savings at 70 military locations, assuming that the amount of the annual savings computed at the four locations where we conducted our examination was an average for all installations, would amount to several million dollars annually. Because there are over 800 military installations using the AUTOVON system in the United States, the overall potential may be considerably greater. We recognize that a determination as to whether FTS is more economical than commercial service would have to be made for each installation.

AVAILABILITY OF FTS

Discussions with GSA officials at both the Washington and the local administrative levels revealed that GSA was willing and able to handle DOD telephone traffic over FTS. GSA officials said that FTS currently had facilities to handle traffic for a large number of DOD installations and anticipated that this traffic would affect, only slightly, the present GSA average cost per call.

GSA told us that methods for providing DOD installations with access to FTS were simple and readily available. The

switchboards of DOD installations would interface with FTS at the nearest FTS switching center. The interface would be provided by leased access circuits connecting the two points; the cost would be paid by GSA.

Installations currently receiving local-only telephone service from GSA switchboards would be provided with access to FTS through simple rewiring of the switchboards.

CONTROL OVER UNAUTHORIZED USE OF FTS

We have found that several means of controlling unauthorized use of FTS are available, if desired. For example, administrative instructions and educational programs may provide adequate control in many instances. If more control is required, both mechanical and manual controls are available to restrict unauthorized use of FTS. Mechanically, telephone switchboards can be wired to limit the number of telephone instruments that are able to dial FTS circuits. In this manner, only parties with official need and prior approval would be able to use FTS. For manual control, telephone switchboards can be wired so that the only way to obtain an FTS circuit would be through the switchboard operators. This method provides tight control over the use of FTS circuits, but it is costly in terms of operator time and switchboard efficiency.

With these controls available, AUTOVON could continue to serve as the primary means of communication between DOD activities, and FTS could provide a less expensive means, in lieu of commercial long-distance telephone service, for DOD activities to communicate with commercial organizations, civilian agencies, and other non-AUTOVON subscribers.

DOD POLICY ON CONCURRENT USE OF FTS AND AUTOVON SERVICES

The current DOD policy concerning the use of FTS is expressed in a DOD policy memorandum of August 6, 1964. This memorandum provides that, where AUTOVON service satisfies the requirements of a DOD installation, such service will not be duplicated by the addition of FTS service. The policy also provides that, where it is economical and feasible to do so, FTS service may be used in lieu of AUTOVON

but that in no case will DOD installations subscribe to both systems without approval from the Assistant Secretary of Defense (Telecommunications).

Many DOD installations have divided communities of interest and cannot be adequately served by one system. AUTOVON does not offer the capability of reaching business concerns or Government agencies outside the DOD community, and FTS does not have the preempt features, survivability, and overseas capabilities that are required for command and control purposes.

Although current DOD policy allows concurrent utilization of AUTOVON and FTS, very few requests for concurrent service have been received. Only one of the four installations covered by our review had made an effort to obtain the necessary authorization for FTS service.

This installation--the San Francisco Procurement Agency of the Army Materiel Command--was using, prior to January 1969, both FTS and AUTOVON services through a GSA-operated switchboard. When the switchboard was converted by GSA to a direct-dial in-and-out (Centrex) system, the installation was orally informed by its major command that use of one of the systems would have to stop.

The installation submitted a formal request for authorization to keep both systems because the loss of FTS would result in a substantial increase in telephone costs. The request was reviewed by the installation's major command and forwarded to the Department of the Army for submission to DOD. The request was denied at that level and returned with the following explanation:

"Your request for approval *** to have access to both the AUTOVON and FTS systems was discussed in the Office of Director of

Telecommunications Policy, ASD (I&L).¹
During discussions it became apparent that
the request would not be favorably consid-
ered if submitted."

The subsequent loss of FTS service resulted in an increase
from under \$100 to about \$4,900 in average commercial long-
distance telephone costs per month.

¹The functions of the Director of Telecommunications Policy,
ASD (I&L), have been assumed by the Assistant Secretary of
Defense (Telecommunications).

CHAPTER 3

AGENCY COMMENTS, OUR EVALUATION,

AND ACTIONS BEING TAKEN

We brought our findings to the attention of the Secretary of Defense; the Administrator of General Services; the Director, Office of Telecommunications Policy, Executive Office of the President; and others by letter dated February 18, 1971.

AGENCY COMMENTS AND OUR EVALUATION

In his reply dated March 25, 1971, the Administrator of GSA stated that he was in complete agreement with the intent of the review. (See app. I.)

The Assistant to the Secretary of Defense (Telecommunications)--now designated as the Assistant Secretary of Defense (Telecommunications)--advised us by letter of March 26, 1971, that the expressed policy did not discourage the concurrent use of AUTOVON and FTS. (See app. II.) He said that any requests for dual service were handled through established command channels by the Office of the Secretary of Defense and that a number of requests for dual use had been processed and approved by that office. However, he questioned the average cost per FTS call used by GSA in billing and the GSA sampling technique used to arrive at this cost. He had asked the installations studied by GAO to independently determine if savings would result from the use of FTS in lieu of commercial toll service and WATS.

In a letter dated August 30, 1971, DOD advised us of the results of the review made by the four Army, Navy, and Air Force installations. (See app. III.) Enclosed were copies of letters from the Army, Navy, and Air Force. (See app. IV, V, and VI, respectively.) Also submitted were 38 pages of detailed comments and supporting documentation submitted by the Navy and Air Force. In the interest of reducing the volume of this report, we have excluded the 38 pages and summarized the principal comments below.

The Army agreed that savings at the Presidio of San Francisco and at the San Francisco Procurement Agency could be realized if FTS service, rather than the existing commercial toll and WATS services, were used. The Army requested approval for conversion to FTS service at these two installations. This request was approved by the Office of the Secretary of Defense. (See app. III.)

The Navy concluded that it would be uneconomical to use FTS at Mare Island Naval Shipyard. Our examination of the Navy's economic analysis, however, showed that estimated FTS costs were not correctly calculated; specifically, we found that:

- WATS would not be necessary; however, the Navy included \$11,000 a month for WATS.
- The Navy included commercial calls that would not be FTS eligible, which resulted in extra trunk and equipment costs.
- The Navy used \$1.10 a call to estimate the backbone costs of installing FTS, whereas GSA computed this cost to be about 26.4 cents a call.

As a result, the Navy analysis significantly overstated the FTS cost. Adjustments for these factors would have resulted in a forecast that use of FTS would be cost effective at Mare Island Naval Shipyard.

The Air Force did not take exception to our cost analysis for McClellan Air Force Base but used Air Force-wide FTS costs in its reply to our proposal. The Air Force stated that FTS service was costing more than \$3 a call, rather than the 90 cents a call estimated by GSA. On that basis, the Air Force contended that substantial amounts could be saved by converting nearly all Air Force locations now served by FTS to commercial service.

The discrepancy between GSA and Air Force costs was due to a difference between the number of calls recorded manually by Air Force personnel for the first quarter of 1971 and the number of calls recorded by GSA on the basis of GSA's statistical-sampling and mechanical-counting process in the

same quarter. The Air Force recorded 93,693 calls at its subscriber locations, whereas the GSA sample showed that the Air Force made 331,974 calls. Because the billing to the Air Force for that quarter was \$306,425, the computations result in an average cost per call of \$3.27, according to the Air Force, and 92 cents, according to GSA.

The Air Force has questioned the validity of GSA's sampling and counting process, and GSA has questioned the accuracy of the Air Force manual count. Because of the nature of the disagreement and because DOD has initiated operational tests of our proposal that FTS be used (as discussed in the following section), we have not attempted to reconcile these contrary positions. We have been informed that Air Force plans for the tests include the use of a manual count to check on the accuracy of GSA's sampling and mechanical-count procedure.

ACTIONS BEING TAKEN BY DOD AND GSA

In consonance with our proposal of February 18, 1971, the Office of Telecommunications Policy, in its July 28, 1971, letter to GSA and DOD, identified two alternatives for improving the utility of the AUTOVON and FTS networks. Each alternative provides for the expansion of FTS service to selected DOD users.

Accordingly, DOD and GSA have initiated tests of the feasibility of expanded use of FTS service by DOD users. Between seven and nine military installations, including three of the four installations in our review, are included in the tests which started on July 1, 1972.

A report on the tests is to be available in January or February 1973. The objectives of the tests are (1) to determine the cost effectiveness of FTS service at the selected DOD installations and the best means of providing long-distance telephone services and (2) to develop guidelines for selection of military installations where FTS service should be provided in lieu of commercial long-distance telephone service.

CHAPTER 4

CONCLUSIONS

Our review has demonstrated the potential for substantial savings to the Government through DOD use of FTS intercity service in lieu of commercial long-distance telephone service.

In consonance with our proposal, DOD and GSA have initiated operational tests, scheduled for completion by February 1973, of the use of FTS in lieu of DOD commercial toll calls.

In view of the establishment of the test program, we have no recommendations, pending completion and our evaluation of the test results.

FTS ECONOMIC ANALYSIS

AGENCY--Presidio of San Francisco

LOCATION--San Francisco, California

BEST DOCUMENT AVAILABLE

FTS ELIGIBLE CALLS

Tolls for month 1970	Total toll calls less--message-unit calls; tolls of 20¢ or less; collect, credit-card, third- party calls; and <u>calls outside CONUS</u>		Commercial <u>interstate WATS</u>		Person-to-person calls--only 60% of this charge is FTS <u>eligible</u>	
	<u>Calls</u>	<u>Charges</u>	<u>Calls</u>	<u>Charges</u>	<u>Total charge</u>	<u>40% of total charge</u>
March and April	1,677	\$ 4,869.10	-	-	\$217.20	\$ 86.88
April and May	2,352	** 5,093.15	-	-	333.85	133.54
May and June	<u>2,737</u>	<u>5,160.25</u>	<u>-</u>	<u>-</u>	<u>375.00</u>	<u>150.00</u>
Total	<u>6,766</u>	<u>\$15,122.50</u>	<u>-</u>	<u>-</u>	<u>\$926.05</u>	<u>\$370.42</u>

MONTHLY AVERAGE CALLS = $6,766 \div 3 = 2,255$

MONTHLY AVERAGE CHARGES = $\$15,122 - \$370 = \$14,752 \div 3 =$ \$4,917

ACCESS REQUIREMENTS--2,255 calls at 6 minutes average holding time require 12 circuits at grade P.02 (grade P.02 means two of every 100 calls will not be completed).

ESTIMATED FTS COSTS:

1. The average number of calls a month (2,255) multiplied by a stimulation factor of 1.20 equals 2,706 projected calls.
2. Projected call volume 2,706 multiplied by backbone cost factor of 26.4 cents a call equals total FTS backbone costs \$ 714
3. Telephone company charges for access facilities consisting of 12 circuits and termination equipment costs 439

Total 1,153

ESTIMATED MONTHLY SAVINGS USING FTS \$3,764

SCHEDULE 2

FTS ECONOMIC ANALYSIS

AGENCY-- Mare Island Naval Shipyard

LOCATION-- Vallejo, California

FTS ELIGIBLE CALLS

Tolls for month <u>1970</u>	Total toll calls less--message-unit calls; tolls of 20¢ or less; collect, credit-card, third- party calls; and calls outside CONUS		Commercial interstate WATS		Person-to-person calls--only 60% of this charge is FTS eligible	
	<u>Calls</u>	<u>Charges</u>	<u>Calls</u>	<u>Charges</u>	<u>Total charge</u>	<u>40% of total charge</u>
April	2,274	\$ 6,003.05	1,817	\$ 4,204.04	\$182.20	\$ 72.88
May	2,412	6,166.00	1,522	4,916.76	146.90	58.76
June	<u>945</u>	<u>6,217.25</u>	<u>1,851</u>	<u>4,359.80</u>	<u>167.25</u>	<u>66.90</u>
Total	<u>5,631</u>	<u>\$18,386.30</u>	<u>5,190</u>	<u>\$13,480.60</u>	<u>\$496.35</u>	<u>\$198.54</u>

MONTHLY AVERAGE CALLS = $5,631 + 5,190 = 10,821 \div 3 = 3,607$

MONTHLY AVERAGE CHARGES = $\$18,386 + \$13,481 - \$199 = \$31,668 \div 3 = \$10,556$

ACCESS REQUIREMENTS--3,607 calls at 6 minutes average holding time require 16 circuits at grade P.02 (grade P.02 means two of every 100 calls will not be completed).

ESTIMATED FTS COSTS:

1. The average number of calls a month (3,607) multiplied by a stimulation factor of 1.20 equals 4,328 projected calls.
2. Projected call volume 4,328 multiplied by backbone cost factor of 26.4 cents a call equals total FTS backbone costs \$1,143
3. Telephone company charges for access facilities consisting of 16 circuits and termination equipment costs 2,018

Total 3,161

ESTIMATED MONTHLY SAVINGS USING FTS \$ 7,395

BEST DOCUMENT AVAILABLE

FTS ECONOMIC ANALYSIS

AGENCY-- San Francisco Procurement Agency

LOCATION-- Oakland, California

FTS ELIGIBLE CALLS

Tolls for month	Total toll calls less--message-unit calls; tolls of 20¢ or less; collect, credit-card, third- party calls; and calls outside CONUS		Commercial interstate WATS		Person-to-person calls--only 60% of this charge is FTS eligible	
	<u>Calls</u>	<u>Charges</u>	<u>Calls</u>	<u>Charges</u>	<u>Total charge</u>	<u>40% of total charge</u>
Nov. 1969	2,340	\$ 5,508.75	-	-	-	-
June 1970	3,069	6,283.30	-	-	-	-
July 1970	<u>1,895</u>	<u>4,032.95</u>	-	-	-	-
Total	<u>7,304</u>	<u>\$15,825.00</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

MONTHLY AVERAGE CALLS = $7,304 \div 3 = 2,435$

MONTHLY AVERAGE CHARGES = $\$15,825 \div 3 =$ \$5,275

ACCESS REQUIREMENTS--2,435 calls at 6 minutes average holding time require 12 circuits at grade P.02 (grade P.02 means two of every 100 calls will not be completed).

ESTIMATED FTS COSTS:

1. The average number of calls a month (2,435) multiplied by a stimulation factor of 1.20 equals 2,922 projected calls.
2. Projected call volume 2,922 multiplied by backbone cost factor of 26.4 cents a call equals total FTS backbone costs \$ 771
3. Telephone company charges for access facilities consisting of 12 circuits and termination equipment costs 1,117

Total 1,888

ESTIMATED MONTHLY SAVINGS USING FTS \$3,387

SCHEDULE 4

FTS ECONOMIC ANALYSIS

AGENCY-- McClellan Air Force Base

LOCATION-- Sacramento, California

FTS ELIGIBLE CALLS

Tolls for month <u>1970</u>	Total toll calls less--message-unit calls; tolls of 20¢ or less; collect, credit-card, third- party calls; and calls outside CONUS		Commercial interstate WATS		Person-to-person calls--only 60% of this charge is FTS eligible	
	<u>Calls</u>	<u>Charges</u>	<u>Calls</u>	<u>Charges</u>	<u>Total charge</u>	<u>40% of total charge</u>
May	109	\$274.70	5,905	\$ 9,500	\$17.50	\$ 6.96
June	99	199.40	6,093	9,500	30.60	12.24
July	<u>97</u>	<u>265.50</u>	<u>5,551</u>	<u>9,500</u>	<u>30.90</u>	<u>12.36</u>
Total	<u>305</u>	<u>\$739.60</u>	<u>17,549</u>	<u>\$28,500</u>	<u>\$78.90</u>	<u>\$31.56</u>

MONTHLY AVERAGE CALLS = $305 + 17,549 \div 3 = 5,951$

MONTHLY AVERAGE CHARGES = $\$740 + \$28,500 \div 3 = \$9,736$

ACCESS REQUIREMENTS--5,951 calls at 6 minutes average holding time require 23 circuits at grade P.02 (grade P.02 means two of every 100 calls will not be completed).

ESTIMATED FTS COSTS:

1. The average number of calls a month (5,951) multiplied by a stimulation factor of 1.20 equals 7,141 projected calls.
2. Projected call volume 7,141 multiplied by backbone cost factor of 26.4 cents a call equals total FTS backbone costs \$1,885
3. Telephone company charges for access facilities consisting of 23 circuits and termination equipment costs 3,522

Total 5,407

ESTIMATED MONTHLY SAVINGS USING FTS \$4,329

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UNITED STATES OF AMERICA
GENERAL SERVICES ADMINISTRATION
WASHINGTON, D.C. 20405



MAR 25 1971

Honorable Elmer B. Staats
Comptroller General of the United States
General Accounting Office
Washington, D.C. 20548

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Dear Mr. Staats:

Thank you for your letter of February 22, 1971, which enclosed copies of your February 18 letter to the Secretary of Defense in regard to the potential cost savings to the Department of Defense from increased use of the Federal Telecommunications System in lieu of commercial service.

You and your staff have made an excellent review as it relates to the FTS. I am in complete agreement with the intent of the review, and at this time we have no specific comment.

If this Agency can be of any assistance in the future in supplying data or providing any expertise in the area of the review, please do not hesitate to ask us to do so.

Sincerely,

A handwritten signature in cursive script that reads "Bob Kunzig".

Robert L. Kunzig
Administrator

Keep Freedom in Your Future With U.S. Savings Bonds



OFFICE OF THE SECRETARY OF DEFENSE
WASHINGTON D.C. 20301

26 MAR 1971

Mr. Charles M. Bailey
Director, Defense Division
United States General Accounting Office
Washington, D. C. 20548

Dear Mr. Bailey:

The Secretary of Defense has asked me to respond to your letter of February 18, 1971 regarding your report, "Savings Possible Through Use of the Federal Telecommunications System (FTS) Telephone Network by Department of Defense" (OSD Case #3239).

We view your letter as discussing two items; viz., dual use of AUTOVON and FTS and use of FTS in lieu of toll, and WATS for DoD long distance calls. Each item is addressed below.

Response to your questions on dual use of AUTOVON and FTS:

Question 1: Is the current policy intended to discourage concurrent use by DoD activities of both AUTOVON and FTS facilities?

Response: No. The DoD policy in the Deputy Secretary of Defense memorandum of August 6, 1964 is explicit. It defines the purpose and use of the AUTOVON and FTS voice networks. The policy was promulgated to provide the rationale, basis and channels of communication to obtain approval for use of both AUTOVON and FTS. Lacking such policy could lead to indiscriminate and arbitrary use of both systems without consideration of operational needs to include technical features and could result in overall increased costs to the U. S. Government.

Question 2: Has DoD issued any policy statement or guidelines instructing DoD installations on the procedures to be followed in obtaining dual access to FTS and AUTOVON?

Response: The policy statement and guidelines are contained in the Deputy Secretary of Defense memorandum of August 6, 1964. Requests for approval of dual service are handled

in the same manner as any other correspondence; viz., the requesting activity forwards the requirement through established command channels to the Office of the Secretary of Defense (OSD) for review and approval. Should one of the reviewing commands determine that the requirement did not contain sufficient justification for dual service, the request would be disapproved and returned to the originating activity. For information, a number of requests have been processed through the established channels and have been approved by OSD.

Question 3: In view of the potential savings that exist through dual access to AUTOVON and FTS, are there disadvantages foreseen that would deter issuance of policy statements or guidelines encouraging such use of FTS?

Response: The use of FTS, in addition to AUTOVON, must be based on several factors; viz., achievement of overall economies to the U.S. Government; adequate fulfillment of requirements; operational responsiveness; and the assurance that the desired degree of integrity and survivability of the AUTOVON are not jeopardized. Additionally, the GSA average billing rate per call of \$0.905 which is discussed in your letter can be misleading. GSA samples DoD FTS calls. The sampling is then used as the basis for determining the cost of FTS to DoD subscribers for the fiscal year two years hence. Such sampling techniques can present an unrealistic calling pattern due to mission/function/activity changes at DoD locations which may have taken place in two years. The cost for each inter-city call placed over the FTS has steadily increased over the past years. In 1965 the cost per call averaged approximately 80 cents. At the present time, the military departments estimate this charge to be somewhere between \$1.05 and \$3.00 per call. This does not include costs incurred by the local subscriber such as common distributable costs, basic equipment charges, charges for special features, mileage charges (where applicable) and charges for installations and moves. Accordingly, there does not appear to be any requirement to change the current policy. It provides the necessary controls to preclude indiscriminate use of FTS and arbitrary increases in the overall costs for voice service.

Question 4: Are the disadvantages, if any, of sufficient import and extent to invalidate the potential economies?


Response: The response to Question 3 is pertinent. The AUTOVON and AUTODIN networks have been developed to accommodate the world-wide operational and administrative requirements of the DoD on a 24-hour-a-day basis both in peacetime and wartime situations. The networks satisfy most of the community of interest needs of DoD activities. The DoD networks provide the necessary survivability, special features such as priority and pre-emption, and offer high reliability and security. Therefore, each request for dual service must be reviewed, evaluated and judged, not only on the basis of potential economy but on the need to maintain the integrity and survivability of DoD systems.

Response to use of FTS in lieu of toll and WATS:

FTS, in lieu of toll and WATS, is being used by DoD activities when real economies are identified and the service will adequately fulfill the requirements. Of course the FTS sampling technique discussed in response to Question 3 does present some problems in determining real economy. For the reasons stated, the potential savings cited for the four locations in your letter are not completely valid. To this end, this office has asked the DoD activities to determine to the degree possible actual savings that could accrue, if any, by the use of FTS in lieu of toll and WATS at the four locations.

In summary, it can be stated that the DoD issuance clearly provides the policy and guidance to obtain dual AUTOVON and FTS service. It is not intended to discourage the dual use of the AUTOVON and FTS. Dual service has and will continue to be approved when fully justified. Use of FTS in lieu of commercial services (toll and WATS) is authorized and is being used when real economies are identified and the service will adequately fulfill the requirements.

Sincerely,



Louis A. deRosa
Assistant to the Secretary of Defense
(Telecommunications)

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OFFICE OF THE SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

30 AUG 1971

Mr. Charles M. Bailey
Director, Defense Division
General Accounting Office
441 G Street, N. W.
Washington, D. C. 20548

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Dear Mr. Bailey:

On March 26, 1971 the Assistant to the Secretary of Defense (Telecommunications), Office of the Secretary of Defense, responded to your letter of February 18, 1971 regarding your report, "Savings Possible through Use of the Federal Telecommunications System (FTS) Telephone Network by Department of Defense" (OSD Case #3239).

The March 26 response stated, among other things, that FTS in lieu of toll and WATS is being used by DoD activities when real economies are identified and the service will adequately fulfill the requirements. It also stated that this office has asked the DoD activities to determine to the degree possible actual savings that could accrue, if any, by the use of FTS in lieu of toll and WATS at the four locations cited in your report.

Based on a request from a representative of your office, I am enclosing the results of the DoD review of the four locations. It will be noted that savings will accrue at two of the four locations by use of FTS in lieu of toll and WATS, and the request to convert to FTS service has been approved by this office.

FTS will continue to be used by DoD activities when deemed operationally and economically feasible.

Sincerely,

D. L. Solomon

Acting Assistant to the Secretary of Defense
(Telecommunications)

Enclosure

APPENDIX IV



DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, D.C. 20310

2 AUG 1971

MEMORANDUM FOR: DEPUTY ASSISTANT SECRETARY OF DEFENSE
(TELECOMMUNICATIONS)

SUBJECT: GAO Letter Report dated February 18, 1971, "Savings Possible Through Use of the Federal Telecommunications System (FTS) Telephone Network by Department of Defense" (OSD Case #3239)

Reference is made to your memorandum, 29 March 1971, above subject, in which you requested that the Army determine to the degree possible actual savings that could accrue by the use of FTS, in lieu of toll and WATS, at the Presidio of San Francisco and the San Francisco Procurement Agency.

A detailed Army review at these installations indicates that average monthly savings of \$3,666 at the Presidio of San Francisco and \$3,281 at the San Francisco Procurement Agency could be realized if FTS service was used rather than toll and WATS.

In view of the findings evident from these reviews, it is requested that FTS service be approved for both the Presidio of San Francisco and the San Francisco Procurement Agency.

G. B. Russell

Deputy Assistant Secretary of the Army (I&L)
Material Readiness & Logistics Management Systems

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DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20350

20 MAY 1971

MEMORANDUM FOR THE ASSISTANT TO THE SECRETARY OF DEFENSE
(TELECOMMUNICATIONS)

Subj: GAO Letter Report Dated February 18, 1971, "Savings Possible Through Use of the Federal Telecommunications System (FTS) Telephone Network by Department of Defense" (OSD Case #3239)

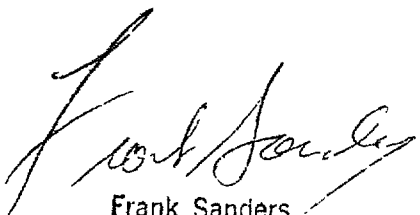
Ref: (a) ATSD(T) memo of 29 March 1971, subject as above
(b) ATSD(T) memo of 8 January 1971, "Federal Telecommunications System (FTS)"

Encl: (1) Comparison of Commercial and FTS Service

1. As requested by your memorandum of 29 March 1971 (reference (a)), the subject GAO report has been reviewed. The economic analysis for telephone service for Mare Island Naval Shipyard to determine the degree of possible actual savings that could accrue, by the use of FTS, is forwarded as enclosure (1). The analysis of service requirements utilized FTS service and that residual commercial service required. The residual commercial service retained would include present local service, WATS and reduced toll service that will allow placement of numerous calls to activities not effectively or economically accessed by FTS service.

2. The economic analysis is constrained by the fact that the current costs of FTS service are disputed. As recommended by reference (b), the Chief of Naval Operations requested GSA on 25 January 1971 to furnish the Department of the Navy a listing of; current Navy subscribers, types of service supplied, and the current rate of charges for these services. In the absence of a reply from GSA the economic analysis of enclosure (1) is based on current costs estimated by the Chief of Naval Operations.

3. Based on the economic analysis of enclosure (1), it is concluded that the use of FTS at Mare Island Naval Shipyard would be uneconomical at this time and that actual savings accrue by using a combination of commercial toll and WATS service.


Frank Sanders
Assistant Secretary of the Navy
(Installations and Logistics)

DEPARTMENT OF THE AIR FORCE
WASHINGTON 20330



OFFICE OF THE SECRETARY

JUL 2 1971

MEMORANDUM FOR THE ACTING ASSISTANT TO THE SECRETARY OF
DEFENSE (TELECOMMUNICATIONS)

SUBJECT: Savings Possible Through Use of Federal Telecommu-
nications System (FTS)

As requested in your memorandum of May 28, 1971, the AFCS cost analysis of Air Force use of FTS is attached. The analysis points out that the foundation of the GAO recommendation for McClellan Air Force Base was based upon the cost rationale of \$.90 per call utilizing FTS. If that rate was supportable, then the GAO recommendation to utilize FTS in lieu of commercial service would be valid throughout the Air Force. However, the AFCS cost analysis of FTS service, utilizing data collected at Air Training Command recruiting offices, further substantiates the Air Force contention that the average cost of FTS calls exceeds \$3.00 per call.

By applying the average cost rate resulting from the AFCS study, it is concluded that substantial savings could be realized by converting to commercial service nearly all Air Force locations now served by FTS.

A handwritten signature in cursive script, appearing to read "John W. Perry", is written over a horizontal line.

JOHN W. PERRY
Deputy for Transportation and Communications

3 Attachments

1. AFCS (DONST) Ltr, 26 Jan 1971, w/1 attachment
2. AFCS (DONSV) Ltr, 28 Apr 1971, w/2 attachments
3. AFCS (DONSV) Ltr, 15 Jun 1971, w/2 attachments

NOT AVAILABLE

Copies of this report are available from the U. S. General Accounting Office, Room 6417, 441 G Street, N W., Washington, D.C., 20548.

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