

PD-AAV-491
49688

Final Report

Cost Recovery Policy Analysis:

Options for Collection and Utilization of User Fees

by the

**Development Information Division
(PPC/CDIE/DI)**

Prepared under Indefinite Quantity Contract

PDC-0085-I-00-6108-00 Work Order No. 01

January 16, 1986

**Prepared by:
Edwin J. Clapp
David van Tijn
TvT Associates
300 I Street N.E., Suite 207
Washington, D.C. 20002**

**Prepared for:
Maury Brown
Director, PPC/CDIE/DI
U.S. Agency for
International Development
Washington, D.C. 20523**

CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY --	
CONCLUSIONS AND RECOMMENDATIONS	1
1. INTRODUCTION	4
2. STATEMENT OF THE PROBLEM	5
3. FORMULATION AND ANALYSIS OF OPTIONS	7
3.1 Option 1: Obtain Legislative Authority	8
3.2 Option 2: Utilize Existing Authority	12
3.3 Option 3: Contracts Not Subject to the Act	14
APPENDIX A: EXAMPLES OF LEGISLATION PERMITTING RE-USE OR RETENTION OF USER FEES	
APPENDIX B: INTERAGENCY AGREEMENT BETWEEN THE NATIONAL LIBRARY OF MEDICINE AND THE NATIONAL TECHNICAL INFORMATION SERVICE	
APPENDIX C: REVIEW OF THE FEE FOR SERVICE AND COMPUTER OPERATIONS OF THE NATIONAL LIBRARY OF MEDICINE	
APPENDIX D: PERSONS CONTACTED	

EXECUTIVE SUMMARY - CONCLUSIONS AND RECOMMENDATIONS

This document constitutes the final report under Delivery Order No. 1, IQC PDC-0085-I-00-6108-00.

The assignment under this delivery order was to develop options for the collection and retention of user fees by the Development Information Division of CDIE for services provided by the Division to non-AID users.

The major conclusions of the study are:

1. There are three possible ways for CDIE/DI to obtain the benefits of user fees collected from non-AID clients of DI services and products. These options are:
 - Obtain legislative authority for retention of user fees and their application to the costs of providing the services.
 - Execute an Interagency Agreement with NTIS or another agency which has such legislative authority, pursuant to which the other agency would collect user fees and apply the proceeds as directed by DI.
 - Enter into contractual arrangements in which contractors would collect user fees and apply the proceeds to contract costs. Precedents for the legality of such arrangements exist, but a ruling by the General Counsel will be required.
2. The policy of instituting user fees for Government services and products supplied to non-Government users is a "Major Policy Initiative" of the OMB and has been extensively supported by Congress.

3. Formulation of options in a form in which they can be prioritized will require, at a minimum,
 - estimates of the amount of funds likely to be collected as user fees; and,
 - preliminary exploration of the implementation process likely to be required for each of the three possible approaches, and of the impact on other AID functions likely to be involved in the implementation processes. Also, in the case of an interagency agreement, preliminary discussions with potential agencies (e.g. NTIS) should be held.

Recommendations include:

1. Estimates of the amount of money likely to be collected as user fees should be produced. Such estimates will involve development of a schedule of user fees based upon
 - cost analysis of current operations, including, for each product and service:
 - direct cost, labor and materials,
 - administrative cost directly allocatable to the product or service,
 - overhead costs,
 - management costs;
 - a tentative basis for allocating costs to end-products such as research papers, data-base searches and hard copies;
 - a market projection for non-AID users.

2. On the basis of potential revenue estimates, preliminary discussions should be held to elicit preferences and opinions of other AID organizational units with regard to the approaches identified.
3. On the basis of potential revenue and opinions from legal and contracting personnel, a detailed implementation plan for one or more of the proposed approaches should be prepared for presentation to appropriate authority for approval.

1. INTRODUCTION

A review of the legal bases for the collection and utilization of user fees currently collected by units of the Government was conducted, using the LEXIS data base. In addition, a number of agencies were contacted directly, in order to determine their situation. A list of these contacts is attached as Appendix D.

Section 2 of this report formulates precisely the problem posed to this study: the requirement under what is known as the "miscellaneous receipts act" that the proceeds of user fees be deposited in the U.S. Treasury. Three possible types of arrangements for avoiding this requirement and for retaining the benefits of user fees for AID are identified in Section 2. Precedents exist for use of each of these approaches.

Section 3 analyzes each approach in detail, and identifies the precedents for the approach. More detail for the three approaches is supplied in Appendices A, B and C.

The cases reviewed, besides providing precedents for the collection and retention of user fees, also provide some precedents for the calculation of user fees: the National Technical Information Service (NTIS) of the Department of Commerce, on its own account, has set user fees to recover all costs, and leave a surplus for transmission to the Treasury; the National Library of Medicine (NLM) of the National Health Institutes sets user fees at a level where they produce a 39% surplus over marginal costs, which is transmitted to the Treasury.

2. STATEMENT OF THE PROBLEM

The scope of work for this study formulated three questions to be answered:

- What are CDIE's options for instituting fees and commercial sales of CDIE services and products?
- How can the proceeds of costs recovered by CDIE legally be applied, directly or indirectly, to the needs of CDIE's programs?
- What existing or proposed contractual mechanisms or approaches can be exploited to implement the legal options identified in items 1 or 2?

The study is motivated by the budgetary stringency that arises from the extension of products and services provided to the development community by the Development Information Division at a time when budgets are shrinking. The Development Information Division provides complete library services including access to data bases; research services; an abstracting service for AID reports, with an on-line data base of abstracts; and, on demand, hard copies of AID reports. These services have to date been almost completely funded from the AID budget; the one exception is a small charge made for reproduction, handling and shipping of hard copies to non-AID clients, the proceeds of which are used for acquisitions.

Increasingly, public policy, both legislative and executive, favors instituting user fees to recover the full cost to the

Government of providing services to non-government users. For instance, the legislation under which NTIS functions (Title 15 of the U.S. Code) includes the following (Sec. 1153):

". . . It is the policy of this Act, to the fullest extent feasible and consistent with the objectives of this Act, that each of the services and functions provided herein shall be self-sustaining or self-liquidating and that the general public shall not bear the cost of publications or other services which are for the special use and benefit of private groups and individuals; . . ."

The Executive Branch in OMB's "Major Policy Initiatives: FY 1987" strongly stresses the institution of user fees, and contains specific suggestions for user fees covering the Park Service and the Forest Service.

AID's problem with user fees originates from the "miscellaneous receipts act", 31 U.S. Code Section 3302. That act provides in pertinent part that "an official or agent of the Government receiving money for the Government from any source shall deposit the money in the Treasury as soon as practicable without deduction for any charge or claim." The Comptroller General has ruled that this means that all funds received for use of the United States must be deposited in the general fund of the Treasury as miscellaneous receipts, unless there is specific statutory authority to make some other disposition of the funds.

62 Op. Comp. Gen. 71 (1982). AID does not currently have such statutory authority.

The "miscellaneous receipts act" deals with an "official or agent" of the U.S. Government "receiving money for the Government" who does not have "specific legislative authority to make some other disposition of the funds."

These conditions leave three options to explore:

- to obtain legislative authority;
- to use the services of another agency which has legislative authority through an interagency agreement;
- to design contractual arrangements in which user fees collected and used by a contractor would avoid being classified as "money for the Government", or the contractor classified as an "agent of the Government".

Precedents exist for each of these approaches. In the following section each approach is discussed in turn.

3. FORMULATION AND ANALYSIS OF OPTIONS

In this section the three options available to CDIE to collect user fees from outside clients of the Development Information Division and to apply the proceeds of these fees to the needs of the Division are discussed in detail. Examples of the use of each option by other units of the Government are provided.

3.1 Option 1: Obtain Legislative Authority

It may be noted that the policy of applying user payments to reduce the cost to the Government of furnishing goods or services is broadly supported by both the Congress and the Executive branch. For example, the legislation under which the National Technical Information Service of the Department of Commerce functions (Title 15 of the U.S. Code) includes the following:

"Sec. 1152. Clearinghouse for technical information; removal of security classification

The Secretary of Commerce (hereinafter referred to as the "Secretary") is hereby directed to establish and maintain within the Department of Commerce a clearinghouse for the collection and dissemination of scientific, technical, and engineering information, and to this end to take such steps as he may deem necessary and desirable-

- a) To search for, collect, classify, coordinate, integrate, record, and catalog such information from whatever sources, foreign and domestic, that may be available;
- b) To make such information available to industry and business, to State and local governments, to other agencies of the Federal Government, and to the general public, through the preparation of abstracts, digests, translations, bibliographies, indexes, and microfilm and other reproductions for distribution either directly or by utilization of business, trade, technical, and scientific publications and services;

c) To effect, within the limits of his authority as now or hereafter defined by law, and with the consent of competent authority, the removal of restrictions on the dissemination of scientific and technical data in cases where consideration of national security permit the release of such data for the benefit of industry and business."

" Sec. 1153. Rules, regulations, and fees

The Secretary is authorized to make, amend, and rescind such orders, rules, and regulations as he may deem necessary to carry out the provisions of this Act, and to establish, from time to time, a schedule or schedules of reasonable fees or charges for services performed or for documents or other publications furnished under this Act."

"It is the policy of this Act, to the fullest extent feasible and consistent with the objectives of this Act, that each of the services and functions provided herein shall be self-sustaining or self-liquidating and that the general public shall not bear the cost of publications or other services which are for the special use and benefit of private groups and individuals; but nothing herein shall be construed to require the levying of fees or charges for services performed or publications furnished to any agency or instrumentality of the Federal Government, or for publications which are distributed pursuant to reciprocal arrangements for the exchange of information or which are otherwise issued primarily for the general benefit of the public."

A current example of the policy direction of the Executive Branch is the Office of Management and Budget's "Major Policy Initiatives for 1987," which includes a proposal for legislation to permit increased user fees for both the Park Service and the Forest Service:

"For the Park Service, the proposal will provide:

- authority to increase entrance fees at parks with existing fees and to extend fees to other units of the NPS where it is economically and otherwise feasible to charge a fee;
- an increase in the price of the annual pass to all parks; and
- inclusion of 80% of revenues collected in the budget for operation of the NPS, with the remaining 20% going to the general fund of the U.S. Treasury."

"For the Forest Service, the proposal will provide:

- authority to charge user fees at up to 3,000 additional sites with recreational facilities. (Currently, the Government is prevented by statutory limitations from charging appropriate fees for these services.); and
- that revenues be retained by the Forest Service for operation and maintenance of recreation programs and facilities."

Utilizing LEXIS and other sources, a number of Government Departments and agencies were identified which have authority to retain some control over user fees collected on the sale of goods

or services. These generally authorize the deposit of the receipts to the credit of the related appropriation account or into a separate account which may be used to pay for the costs of providing the goods or services. For example, the authority for the U.S. Geological Survey to produce and sell copies of aerial or other photographs and mosaics, and reproductions of records provides for:

"the money received from such sales to be deposited in the Treasury to the credit of the appropriation then current and chargeable for the cost of furnishing copies or reproductions as herein [in this section] authorized." 43 U.S. Code Section 44.

The more comprehensive authority under which the National Technical Information Service of the Department of Commerce operates as a clearinghouse for the collection and dissemination of scientific, technical, and engineering information provides -

"All payments for work or services performed or to be performed under this Act shall be deposited in a separate account or accounts which may be used to pay directly the costs of such work or services, to repay or make advances to appropriations or funds which do or will initially bear all or part of such costs, or to refund excess sums when necessary: provided, that said receipts may be credited to a working capital fund otherwise established by law, and used under the law governing said funds, if the fund is available for use by the agency of the Department of Commerce which is responsible for performing the work or services for which payment is received. Acts appropriating funds to the Depart-

ment of Commerce may include provisions limiting annual expenditure from said account or accounts." 15 U.S. Code Sec. 1526.

Other similar authorities exemplifying the variety of these legislative provisions are set forth in Appendix A.

3.2 Option 2: Utilize Existing Authority

An alternative to seeking specific statutory authority to retain and use payments from users to offset the costs of providing information materials and services is to utilize the services of another agency which has such authority. This is the method adopted by the National Library of Medicine of the National Health Institutes, Department of Health and Human Services.

The Library furnishes information materials and services to a broad variety of users through access to its database, through leasing tapes, and through interlibrary loans. The Library has contracts for the operation of its computers and certain functions related to the acquisition and preparation of information into the database, including some abstracting. One of its contractors controls and monitors access to the database and provides the information necessary for the preparation of monthly billings to the users. The Library, however, does not have specific statutory authority which would permit it to retain user payments, and hence it could not receive such payments and use them to defray the costs of furnishing the information; under the miscellaneous receipts act, any such payments received by it would have to be deposited in the general funds of the Treasury. The Library avoids this consequence

by having an interagency agreement with the National Technical Information Service of the Department of Commerce which does have the necessary authority.

Under the interagency agreement, the Library provides NTIS with summary data upon which billings to the users can be prepared. NTIS prepares and sends out the bills, collects the payments, and with the proceeds pays the Library's contractors, in amounts authorized by the Library, for what are described as "access costs": e.g., UNINET, C&P Telephone, royalties, abstracts, and training of searchers at regional medical libraries established or supported by the Library. The total amount collected last year was approximately \$8,000,000; the bills paid were about \$4,200,000. After deduction of NTIS's service charge of 9% of revenue collected, the remaining balance was paid into the Treasury as miscellaneous receipts.

The legal bases for the NTIS-NLM agreement are the Economy Act (31 U.S. Code 686), which authorizes Federal agencies to perform services for one another, and the Department of Commerce legislation cited in Section 3.1 above. NTIS has similar agreements with other Government agencies, and there does not appear to be any legal impediment to its entering into an interagency agreement with AID to provide essentially the same services as those it provides to the Library.

A copy of the NLM-NTIS Interagency Agreement is attached as Appendix B.

3.3 Option 3: Contracts Not Subject to the Act

A second alternative to seeking specific statutory authority would be to revise, broaden, or enter into new contract arrangements. Such arrangements would have to be carefully drawn with a view to avoiding the requirements of the miscellaneous receipts act. Our investigation did not discover any judicial or Comptroller General opinion establishing a clear legal basis for a contract arrangement under which user fees collected by a contractor could be used to offset contract costs in the absence of specific statutory authority. On the other hand, we discovered no opinion which clearly prohibited such a contractual arrangement, and we did find several instances where an agency which did not have specific statutory authority to apply user fees as offsets to contractor costs had entered into contracts which did so.

We recognize, of course, that the question of whether any particular contractual arrangement proposed to be entered into by AID avoids the requirements of the miscellaneous receipts act is a legal matter which is for decision by the AID General Counsel. Subject to that, however, we have the following comments:

- 1) The deposit requirement of the miscellaneous receipts act applies to "an official or agent of the Government receiving money for the Government" (Sec. 3302(b)) and to "a person having custody or possession of public money" (Sec. 3302(c)). Since a contractor (or contract employee) would fall within the definition of "agent of the Government", or "person", a contractual arrangement which could avoid the application of the miscellaneous receipts act would have to be so structured that payments collected from users of informa-

tion materials and services would not be considered to be "money for the Government" or "public money" within the meaning of the act.

2) Are payments made by users of information materials or services necessarily "money for the Government" or "public money"? The plain meaning of the quoted words would seem to require that the money be owed to or owned by or in the custody or control of the Government. It would follow that money received by a contractor under a contract pursuant to which the contractor would bill and collect user fees to be applied, in accordance with the contract, to the contract costs would not meet those definitions of "money for the Government" or "public money", since it would not be money owed to or owned by the Government, nor money in its custody or control.

While it is not directly in point, some support for this conclusion may be found in a recent Comptroller General decision involving the GSA contract with GSI for the operation of cafeterias in Government buildings. The contract provided that GSI could establish a reserve fund of 1-1/2% of gross receipts to be held for future use in replacing Government-owned equipment. Under the facts in that case, the Comptroller General found that the reserve fund was not "money for the Government" which was required to be deposited into the Treasury as miscellaneous receipts. 64 Comp. Gen. 217 (1985).

3) Some precedential support may be taken from the fact that before NLM and NTIS entered into the interagency agreement discussed above, NLM had had a contract with Tymshare, Inc. which involved the application of billings to users of NLM's services as offsets against amounts owed to Tymshare by NLM under the contract.

This contract provided that the Library guarantee Tymshare, Inc. for any receivables Tymshare was unable to collect. A report by the HEW Area Audit Office in 1975 suggested that the guarantee arrangement was in violation of the provisions of law requiring that fees collected by Federal agencies be deposited in the Treasury as miscellaneous receipts. The report did not recommend termination of the contract, urging instead certain modifications to cure the objections. While the HEW General Counsel disagreed that the arrangement was a violation of law, the issues raised were not resolved, for NLM was at the time negotiating the interagency agreement described in Section 3.2 above as a replacement to the Tymshare contract. The Audit Opinion is attached as Appendix C.

4) Further support for the use of a contract to collect user fees and offset them against the contract price may be found in a provision of the Federal Property and Administrative Services Act of 1949, as amended, which provides as follows:

"Where any contract entered into by an executive agency or any subcontract under such contract authorizes the proceeds of any sale of property in the custody of the contractor or subcontractor to be credited to the price or cost of the work covered by such contract or subcontract, the proceeds of any such sale shall be credited in accordance with the contract or subcontract." 40 U.S.Code Sec. 485(e).

This provision has only been dealt with once by the Comptroller General, and then in an internal opinion (B-138557, dated September 25, 1959) not released for general inspection until 1982.

The opinion dealt with a problem concerning the proceeds of the sale by a contractor of U.S. Navy surplus property in Spain. The decision quotes from the reports of the legislative committees of both Houses of Congress

"This subsection recognizes that the contractual provisions authorizing the proceeds of sale of property to be credited to price or cost of the work covered by the contract, are controlling and are not subject to the requirements of the act relating to covering proceeds into the Treasury as miscellaneous receipts."

Despite the unequivocal language of the subsection and the cited legislative history, their applicability to the problem at hand may be subject to doubt because both the decision and the statute are set in the context of surplus property.

5) We were advised by the Contract Office, NIH, that NIH had, in the past, had a few small contracts under which contractors produced and sold biological materials to research laboratories and others, retaining the payments received to offset contract costs. These contracts had apparently not been of sufficient moment to be of concern. Now, however, a proposal for a similar contractual arrangement involving substantial sums has been proposed, and the legal and policy issues involved are under current and intensive review.

Appendix A
Examples of Legislation Permitting Re-use or
Retention of User Fees

Agriculture (inspection and certification of tobacco)

"...The fees and charges, when collected, shall be credited to the current appropriation account that incurs the cost and shall be available without fiscal year limitation to pay the expenses of the Secretary incident to providing services under this chapter..." 7 U.S. Code Sec. 511d.

Agriculture (sale of photographic reproductions and maps)

"...Money received from such sales to be deposited in the Treasury to the credit of the appropriation charged with the cost of making such reproduction..." 7 U.S. Code Sec. 1387

Navy (post laundries)

"Money received for laundry work performed by Marine Corps post laundries shall be used to pay the cost of maintenance and operation of those laundries. Any amount remaining at the end of the fiscal year after the cost has been so paid shall be deposited in the Treasury to the credit of the appropriation from which the cost of operating the laundries is paid." 10 U.S. Code Sec. 7581

Census (information materials; joint statistical studies)

"All moneys received in payment for work or services enumerated under this section shall be deposited in a separate account which may be used to pay directly the cost of such work or services, to repay appropriations which initially bore all or a part of such costs, or to refund excess sums when necessary." 13 U.S. Code Sec. 8(d)

Agriculture (sale of forest-tree seed and nursery stock)

"...moneys received from the sale thereof to be credited to the appropriation or appropriations of the Forest Service currently available for the procurement or production of seed or nursery stock at the time such moneys are deposited:..." 16 U.S. Code Sec. 504a

Agriculture (Forest Service demonstrations etc.)

"...to deposit all moneys received therefor to the credit of the appropriation from which the cost thereof is paid, or a similar appropriation current at the time the moneys are received; provided, that such receipts obtained in excess of \$10,000 in any one fiscal year shall be deposited in the Treasury as miscellaneous receipts."

16 U.S. Code Sec. 580e

Education (National Center for Educational Statistics)

Funds received for transcripts or copies of statistics are to be deposited in a "separate account which may be used to pay directly the costs of such work or services, to repay appropriations which initially bore all or part of such costs, or to refund excess costs when necessary."

20 U.S. Code Sec. 1221e-1 (f)

Labor (statistical studies etc. relating to employment)

"All moneys hereinafter [hereafter] received by the Department of Labor in payment of the cost of such work shall be deposited to the credit of the appropriation of the bureau, service, office, division, or other agency of the Department of Labor which supervised such work, and may be used, in the discretion of the Secretary of Labor, and notwithstanding any other provision of law, for the ordinary expenses of such agency and/or to secure the special services of persons who are neither officers or employees of the United States."

29 U.S. Code Sec. 9a

Interior (sales of aerial maps and mosaics)

"...the money received from such sales to be deposited in the Treasury to the credit of the appropriation then current and chargeable for the cost of furnishing copies or reproductions as herein [in this section] authorized."

43 U.S. Code 329 (c) (2)

Transportation (special studies on transportation)

"Payments shall be deposited in the Treasury in an account that the Secretary shall administer. The Secretary may use amounts in the account for the ordinary expenses incidental to getting and providing the information."

49 U.S. Code 329(c) (2)

Appendix B

Interagency Agreement

Between

The National Library of Medicine

and

The National Technical Information Service

NLM #2Y01-LM-53012-12
NTIS #75-054

The National Technical Information Service (NTIS) agrees to provide the National Library of Medicine (NLM) services as described herein:

I. PURPOSE

This Interagency Agreement between the National Library of Medicine (NLM), National Institutes of Health, Department of Health and Human Services, and the National Technical Information Service (NTIS), Department of Commerce provides for the billing, collection, and payment services to be performed by NTIS for NLM for its domestic MEDLARS online, tape leasing, and subset services, and for its interlibrary loan services.

II. AUTHORITY

This Agreement is entered into under the terms of NTIS enabling legislation, 15 U.S. Code 1151-1157 and 1525-1527, and the Economy Act, 31 U.S. Code 686.

III. BACKGROUND

The purpose of this modification is to aggregate previous modifications in a complete document, restate and redefine the areas of responsibility between NLM and NTIS, and to update the estimated expenditures and revenues for FY 1986.

IV. AREAS OF RESPONSIBILITY

A. DESCRIPTION OF SERVICES TO BE PERFORMED BY NTIS

1. Domestic Online, Tape Leasing, and Subset MEDLARS Services

- a. Use summary data provided by NLM to build, update and change, when necessary, all account maintenance files supportive of the invoice and collection procedure.
- b. As part of the billing and collecting services to be performed by NTIS, each user of NLM services selecting direct monthly billing will be provided a monthly invoice that reflects a summary of the current month's usage. A monthly statement of account will be provided to those users with deposit accounts. This statement will include all outstanding balances to-date, a grand total of outstanding amounts, and all credits, debits, or other adjustments to the user's account. The NTIS will attach paper copies of tables showing usage and charges by NLM database as supplied to NTIS on tape by NLM. The invoices and statements of

account will be sent from NTIS to the user by the tenth working day of the following month of the NLM system usage or by five working days after receipt of the billing tape from NLM.

- c. NTIS will collect, apply, and properly record all payments made by users to their accounts and reflect any adjustments made by either NTIS or NLM to the user's accounts. All payments received through the end of each month will be recorded and will be reflected no later than on the first invoice or statement of account next sent to the user. For example, any payments received in July will be reflected on the bill for July usage sent by the tenth working day of August. NTIS will make all reasonable efforts to record and credit payments through the month, as they are received. In addition, NTIS will make payments, as authorized by NLM and in accordance with the Prompt Payment Act, to the contractors listed in Article V.
- d. NTIS will include delinquency notices on the monthly invoices of all users whose accounts are overdue by sixty days or more. Copies of all outstanding invoices will be made available by NTIS upon request by NLM or the customer (user).
- e. NTIS will provide by the 15th working day of each month to the NLM Project Manager and to the NLM Office of Financial Management a monthly summary listing of overdue accounts information, in a format acceptable to NLM. NTIS will supply the NLM with aged accounts information on microfiche.
- f. NTIS will provide by the 15th working day of each month to the NLM Office of Financial Management a monthly report containing current month and fiscal year-to-date breakdown of all billings, collections, expenditures, and adjustments by on line services, tape leasing (including each lessee individually listed) and subsets (including each lessee individually listed).
- g. Provide adequate staff to 1) answer and clarify inquiries made by NLM or its users into account status or mechanics and 2) work with the designated NLM staff to assure that work and activities required by NTIS in its implementation and operation of the program

described herein are coordinated and performed in a timely and professional manner.

- h. NTIS will provide for payment by credit card (AE, MC, and VISA) for MEDLARS services as a payment option by October 1, 1986.
- i. For the Tape Leasing and Subset services, NTIS will invoice or provide a statement of account on a quarterly basis. This invoice or statement of account will include the usage figures and amounts for the quarter, all outstanding balances to date, a grand total of all outstanding amounts, and all credits, debits, or other adjustments.
- j. For the Tape Leasing and Subset services, NTIS will collect, apply, and properly record all payments made to accounts by the licensees and reflect any adjustments made by either NTIS or NLM to these accounts. All payments received through the end of the quarter will be recorded and will be reflected no later than on the quarterly invoice or statement of account prepared and sent by NTIS.
- k. NTIS will include delinquency notices on the quarterly invoices or statements of account for those accounts which are overdue as determined by NLM. Copies of all invoices and statements of account will be made available by NTIS upon request by NLM or the licensee.

2. Interlibrary Loan Services

- a. Use summary data provided by NLM to build, update and change, when necessary, all account maintenance files supportive of the invoice and collection procedure.
- b. As part of the billing and collecting services to be performed by NTIS, each user of NLM ILL services will be provided a quarterly invoice or listing that reflects the current quarter's usage. In addition, a quarterly statement of account will accompany the current quarter's invoice. This statement will include all outstanding balances to-date, a grand total of outstanding amounts, and all credits, debits, or other adjustments to the user's account. The itemized listing and statement of account will be sent from NTIS to the user by the 15th working day of the following quarter or five working days after receipt of the billing tape from NLM.

- c. NTIS will collect, apply, and properly record all payments made by users to their accounts and reflect any adjustments made by either NTIS or NLM credit memos to the user's accounts. All payments received through the end of each quarter will be recorded no later than on that quarter's invoice. NTIS will make all reasonable efforts to record and credit payments through the quarter, as they are received. In addition, NTIS will make payments, as authorized by NLM and in accordance with the Prompt Payment Act, to the contractors listed in Article V.
- d. NTIS will provide by the 20th working day of each quarter to the NLM Project Manager and to the NLM Officer of Financial Management a quarterly listing of aged accounts information, in a format acceptable to NLM.
- e. NTIS will provide by the 20th working day of each quarter to the NLM Office of Financial Management a quarterly report containing current month and fiscal year-to-date breakdown of all billings, collections, expenditures, and adjustments.
- f. Provide staff to 1) answer and clarify inquiries into account mechanics and 2) work with the designated NLM staff to assure that work and activities required by NTIS in its implementation and operation of the program described herein are coordinated and performed in a professional manner.
- g. NTIS will provide the NLM Project Manager with changes in information concerning the status of each user's account, including billing address, account number, and other changes.

B. NLM RESPONSIBILITIES

1. Domestic Online, Tape Leasing, and Subset MEDLARS Services
 - a. NLM will provide a monthly tape or tapes summarizing the current month's services and charges by the seventh working day of the following month. One file will contain the NLM User ID code and net amount to be invoiced or applied against the user's deposit account for the current month's online MEDLARS usage. Another file will contain the NLM User ID code and usage statistics and charges by database, including totals, for the current month's online MEDLARS usage.
 - b. For the Tape Leasing and MEDLARS subsets, NLM will provide information on a quarterly basis so that NTIS may prepare quarterly invoices or statements of account.
 - c. For Online, Tape Leasing, and MEDLARS subsets, NLM will provide paperwork on a monthly basis citing additions, deletions, changes, credits and other adjustments to charges. This information will be used for file maintenance and debits and credits authorized by the NLM.
 - d. NLM will provide adequate staff to (1) respond to user inquiries or requests that can only be answered by the NLM; (2) monitor the monthly listing of user account action taken by NTIS and take any necessary action in order to resolve past due accounts; (3) provide sole authority for termination of service to users with past due accounts; and (4) work with the designated NTIS Project Officer to assure that work and activities required by both the NLM and NTIS for the implementation and operation of the program described herein are coordinated and performed in a timely and professional manner.
 - e. NLM will provide NTIS with approved original contractor invoices not later than fourteen calendar days after receipt of invoice, validated by date stamp, for processing for payment. Delays beyond fourteen working days should be justified in writing.
 - f. NLM will encourage new and current user accounts to establish deposit accounts with NTIS.

- g. NLM will provide a monthly listing (as well as paper billing agreements, purchase order, etc.) for new authorized users. NLM will pursue experimentation with NTIS of provision of this information on magnetic tape.
- h. NLM will provide any changes in user rates to NTIS sixty days prior, if possible, to the effective date thereof.

2. Interlibrary Loans Services

- a. NLM will provide by the 15th of the first month of the subsequent quarter a quarterly summary computer tape of the current quarter's ILL charges for each user detailed only to the level of total current charges, by users' NTIS number code.
- b. NLM will provide a second quarterly print format tape listing specific line-item requests filled by NLM for each ILL user, sorted by user LIBID code will also be provided. This tape will be used to provide each ILL user with a detailed list of their quarterly transactions.
- c. NLM will provide credit memoranda of additions, deletions, changes, credits, and other adjustments to charges as needed. These memoranda will be used for file maintenance, and debits and credits authorized by the NLM.
- d. NLM will provide NTIS with approved original contractor invoices not later than fourteen calendar days after receipt of invoice, validated by date stamp, for processing for payment. Delays beyond fourteen working days should be justified in writing.
- e. NLM will encourage new and current user accounts to establish deposit accounts with NTIS.
- f. NLM will provide hard copy, paper listings that identify all new users every two weeks and changes to existing user records to be billed.

C. SUMMARY OF REPORTS AND LISTINGS

- 1. NLM will provide for Domestic Online, Tape Leasing, and Subset MEDLARS Services:
 - Monthly Listing of New Users.
 - Monthly Tape of Billing Information.
 - Monthly Corrections, Updates, etc. on Paper Copy.

2. NLM will provide for Interlibrary Loan Services:
 Biweekly Hardcopy Listing of New ILL Users and
 Changes to Existing User Records.
 Quarterly Tape of Summary ILL bills.
 Quarterly Tape Corrections, Updates, Credit
 Memoranda as Needed (approximately bi-monthly).
 Quarterly Tape of Itemized ILL Billing Data (print
 format).

NTIS will provide:

Monthly Itemized Invoice or Statement of Deposit
 Account to Domestic MEDLARS Users on Paper Copy.
 Monthly Cumulative Statements of Overdue MEDLARS
 Accounts to NLM on Paper (accounts overdue by 30
 days, 90 days, and 120 days).
 Quarterly Aged MEDLARS Accounts Receivable to NLM
 on Microfiche.
 Quarterly Itemized Invoice to ILL Users.
 Quarterly Statement of Accounts Billed to NLM.
 Quarterly Aged ILL Accounts Receivable to NLM.
 Written Requests to Charge Tape Formats for
 Procedures (with sufficient lead time to negotiate
 or make changes).

V. DURATION OF AGREEMENT

This agreement will remain in effect from October 1, 1985
 through September 30, 1986, or until amended by mutual
 consent or terminated by either party upon ninety (90) days
 written notice.

VI. DISPOSITION OF COLLECTIONS

For services performed under this agreement, NTIS shall
 retain 9% of actual collections. NLM will authorize
 payments to contractors for access costs not provided for in
 the NLM appropriation, to be paid by NTIS from user charges
 collected. Any residual balance of user charges collected
 will be authorized by NLM for return to the U.S. Treasury.

VII. ESTIMATED REVENUE AND EXPENDITURES

The following are estimates of Revenues and Expenditures for the period October 1, 1985 to September 30, 1986.

DOMESTIC MEDLARS SERVICES:

Online and Tape Leasing

Revenue

Connect hours online	\$5,900,000
Tape leasing	<u>1,150,000</u>
Total, revenue	\$7,050,000

Expenditures for Access Costs

Contractors Payments for:
Data-communications

UNINET	\$284,000
TYMNET	320,000
TELENET	793,000
C&P TELEPHONE	22,000

Royalties:

Chemical Abstracts	769,000
Biological Abstracts	43,000
American Society of Hospital Pharmacists	102,000

Keyboarding of Abstracts:

Informatics	702,000
-------------	---------

Training of Searchers at
Regional Medical Libraries:

University of Nebraska	154,000
Univeristy of California Los Angeles	236,000
New York Academy of Medicine	123,000

NLM Postage	183,000
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Other Expenditures:

NTIS Service Charge (9% of revenue collected)	634,000
Estimated Excess Proceeds	2,685,000
Net residual	-0-

SUBSETS:

Revenue	75,000
NTIS Service Charge (9% of revenue collected)	7,000
Estimated Excess Proceeds	68,000
Net residual	-0-

INTERLIBRARY LOAN SERVICES:

Revenue	375,000
Expenditures for Access Costs:	
Contractor Payments for: Keyboarding	
Informatics	71,000
NLM Postage	117,000
NTIS Service Charge (9% of revenue collected)	34,000
Estimated Excess Proceeds	153,000
Net residual	-0-

VIII. LIAISON PERSONNEL

The following representatives will serve in a liaison capacity to facilitate communications and operations between the participating organizations:

NTIS

Coordinator

Walter L. Finch
Director, Office of Product
Management
Telephone: 487-4805

Lois Grooms
Telephone: 487-4807

NLM

Coordinator

Mark J. Rotariu
Chief, Office of Financial
Management
Telephone: 496-6658

Project Manager for
MEDLARS Services

Carolyn Tilley
Head, MEDLARS Management
Section
Telephone: 496-6193

Project Manager for
Interlibrary Loans

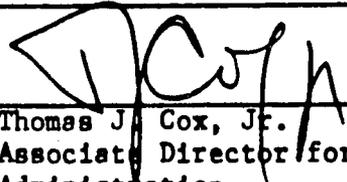
C. Allen
Head, CAS, Public
Service Division
Telephone: 496-5511

IX. SIGNATURES FOR EXECUTION

Future products and services may be added to this agreement by mutual written acceptance of program and financial specifications.

This amendment is executed by the duly authorized parties whose signatures are affixed below:

ACCEPTED AND APPROVED BY NTIS:

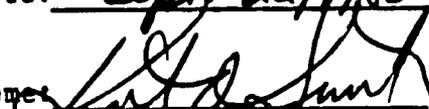
Name: 
Thomas J. Cox, Jr.
Associate Director for
Administration

Date: 9/23/86

ACCEPTED AND APPROVED BY NLM:

Name: 
Lois Ann Colsianni
Associate Director,
Library Operations

Date: Sept. 22, 1986

Name: 
Kent A. Smith
Deputy Director, NLM

Date: Sept. 27, 1986

Appendix C
Review of the Fee for Service
and Computer Operations of the
National Library of Medicine



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20201
March 26, 1975

AUDIT AGENCY

Mr. Leon M. Schwartz
Associate Director for Administration
National Institutes of Health
Bethesda, Maryland 20014

Audit Control No. 50021-12

Dear Mr. Schwartz:

The enclosed report sets forth the results of our review of fee for service and computer operations in the National Library of Medicine (NLM). On the whole, NLM appeared to be performing satisfactorily in the several areas covered by our review. We did, however, note room for improvement in NLM's use of its computer resources to respond to inquiries from MEDLINE users.

Specifically, many large batch production jobs, which could have been processed in non-prime time periods, were run during peak, prime time periods. As a result, responses to MEDLINE user inquiries were delayed well beyond the 10 second criteria established by NLM. Library officials concurred with, and have initiated action on, our recommendations to (1) identify batch production jobs which can be processed during non-prime time and (2) establish centralized control and monitoring of all aspects of computer operations.

Other less significant deficiencies concerned (1) the questionable use of a contractual arrangement with Tymshare, Inc., permitting the contractor to offset accessing fees collected from MEDLINE users against amounts owed by NLM to the contractor and (2) payments made to a contractor on a fixed price basis because of mutual misunderstanding even though the contract provided for payment on a computer usage basis. Although Library officials did not wholly concur with our views, they have initiated satisfactory corrective action. In this connection, we would appreciate being advised, within 60 days, of the status of actions being taken.

We will be pleased to discuss the report with you or your staff, if you so desire.

Sincerely yours,

Paul J. Marion, Director
Washington Area Audit Office

Enclosure

27

TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION	1
BACKGROUND	1
SCOPE OF REVIEW	2
HIGHLIGHTS OF AUDIT RESULTS	2
FINDINGS AND RECOMMENDATIONS	3
MANAGEMENT OF COMPUTER OPERATIONS	3
DISPOSITION OF FEES	6
PAYMENTS FOR COMPUTER SERVICES MADE AT FIXED RATE IN LIEU OF USAGE BASIS	8
APPENDIXES	10

REVIEW OF THE FEE FOR SERVICE
AND COMPUTER OPERATIONS OF THE
NATIONAL LIBRARY OF MEDICINE

INTRODUCTION

BACKGROUND

The National Library of Medicine (NLM), National Institutes of Health is charged with assisting the advancement of medicine and health related sciences through the collection, dissemination, and exchange of the world's biomedical literature.

To fulfill its basic purpose, the Library (1) collects, disseminates, and exchanges medical health information, (2) serves as a repository of medical health information for members of the biomedical community, (3) publishes and distributes catalogs, indexes, and bibliographies of medical literature and audio-visual materials, (4) develops, produces, and disseminates audio-visual materials, (5) encourages and supports the translation and publication of foreign language biomedical literature, and (6) provides support to public and private non-profit institutions for improving and expanding basic medical library resources and for training medical librarians and health information specialists.

The Library prepares a monthly subject-and-author index from about 2,300 journals which are in 40 languages. During FY 1974, 224,318 articles in the journals were indexed. The index citations are stored on the Library's computer banks and are used as source material to prepare the monthly index to current articles, recurring bibliographies in specialized fields of health science, and demand bibliographies in response to special requests.

In 1971, the Library initiated a nationwide, computerized, on-line, bibliographic retrieval system as a general service for the biomedical community. This service, called MEDLINE, allows almost instantaneous, interactive searching of over 2,000,000 citations from the world's biomedical serial literature stored on the computer files. A recent addition to the retrieval system is the TOXLINE file which deals with poisons and their effects on health and the related clinical, industrial and legal problems.

SCOPE OF REVIEW

Our review was made in accordance with governmental auditing standards and was directed primarily at determining the adequacy and propriety of (1) NLM practices and procedures for levying, collecting and disposing of fees for services rendered to users of the on-line retrieval system; (2) management of computer operations and; (3) selected contracting activities. The review was conducted at the National Library of Medicine in Bethesda, Maryland.

HIGHLIGHTS OF AUDIT RESULTS

On the whole, NLM appeared to be performing satisfactorily in the several areas covered by our review. We did, however, note room for improvement in NLM's use of its computer resources to respond to inquiries from MEDLINE users. Specifically, many large batch production jobs, which could have been processed in non-prime time periods, were run during peak, prime time periods. As a result, responses to MEDLINE user inquiries were delayed well beyond the established 10 second criteria. NLM officials concurred with, and have initiated action on, our recommendations to (1) identify batch production jobs which can be processed during non-prime time and (2) establish centralized control and monitoring of all aspects of computer operations.

Other less significant deficiencies concerned (1) the questionable use of a contractual arrangement with Tymshare, Inc., permitting the contractor to offset accessing fees collected from MEDLINE users against amounts owed by NLM to the contractor and (2) payments made to a contractor on a fixed price basis because of mutual misunderstanding even though the contract provided for payment on a computer usage basis.

Although NLM officials did not agree that the offset arrangement with Tymshare, Inc. was inconsistent with the law, they agreed the method of collecting fees should be revised. They are now negotiating an interagency agreement with the National Technical Information Service, Commerce (NTIS) for the invoicing, collecting, and deposit of accessing fees. The other contract is currently being modified to clarify the intent that payment be made on the basis of usage.

Comments on our draft report were solicited from responsible NLM officials. Their comments have been given recognition in the body of the report and are included as an appendix to the report.

FINDINGS AND RECOMMENDATIONS

MANAGEMENT OF COMPUTER OPERATIONS

The NLM computer system was being overloaded during prime shift periods with jobs that could have been processed during non-prime shifts at little or no additional cost to the Government. As a result, computer resources were being wasted, the quality of services to users was being reduced and the cost for MEDLINE users was being increased.

The Library maintains one Honeywell 800, one Honeywell 200, and an IBM 370/158 System. The Honeywell systems are the original NLM computers and are used for the processing and publication of MEDLARS I bibliographic and monographic information. The IBM 370/158 was upgraded from a 155 system in November 1973 and is used to process the MEDLINE, MEDLARS, and TOXLINE applications, develop new applications and process general purpose management information. The rental charge for the IBM central processing unit is \$43,805 for the first 176 hours of use each month (\$249 an hour) and \$25 for each additional hour.

To keep pace with the increasing demand for computer services, several significant modifications have been made in the past year to increase the capacity and operation of the NLM system. In addition, a new processing system, MEDLARS II, is under development with plans for the acquisition of a second IBM 370/158 system. Both Honeywell systems are scheduled to be phased-out when the MEDLARS II processing system becomes operational.

Officials of the Office of Computer and Communications Systems (OCCS), which is responsible for operating and managing the NLM computer system, have stated that the primary criteria for evaluating operations are the responsiveness of the system to user requests; efficiency of operations; and utilization of computer resources. To evaluate system responsiveness, OCCS established a standard of 10 seconds for answering user inquiries. The response time represents the period between the receipt of an inquiry by the computer system and the return reply. Because of their nature, certain inquiries require more than 10 seconds to process, however, when the average response time exceeds 10 seconds, management considers the quality of service to be impaired. Operating efficiency is measured by equating actual operating hours against scheduled hours. Down time for any reason is considered as having a detrimental effect on MEDLINE efficiency.

The utilization of the equipment is measured by using the Boole and Babbage, Inc., measurement programs and the Compress software simulator. The Boole and Babbage program measures the program efficiency or hardware/software configuration utilization for specific time frames. This package is used to "tune" the computer system and obtain a more efficient use of computer resources. The software simulator by Compress is used to evaluate computer capacity.

Officials have stated that, while the computer system is operated on a 24 hour schedule, seven days a week, workloads on an increasing basis are exceeding the capacity of the computer system with the peak demand occurring between the hours of 2 and 4 P.M. daily, Monday through Friday.

Our review of the monthly OCCS operation reports from July 1973 to June 1974 confirmed that the number and type of jobs processed on the 370 system have been increasing. We noted however, that operations fluctuated widely from month to month and that of the 8,760 available hours, 2,100 or 24% were incurred in the idle or off category. In addition, utilization reports disclosed that low usage periods were occurring during non-prime time when the system was operating. For the month of July, 11 percent of available hours were in the idle and off category, 80 percent were used for system development and production, and 9 percent for maintenance, program loading, and down time.

An analysis of activities for the second and fourth week of July 1974 showed that, for the 10 week-day period, the average peak demand occurred between 2 and 3 P.M. with the number of users, responses processed, and responses exceeding the 10 second standard all occurring concurrently. On three days, there were periods when the average response time exceeded 60 seconds. (See appendixes A, B and C for graphic display of this information).

NLM officials regard the day shift as the prime processing period for MEDLINE users. However, we found that large batch production jobs were processed and NLM staff usage increased during the peak demand period. Also, the System Development Corporation (SDC), as part of the developmental work on the MEDLARS II system, was processing batch and on-line jobs during the peak demand period. SDC is located in California and under the terms of the contract has access to the NLM computer from 3 P.M. to 5 A.M. daily, Bethesda, Maryland local time. While the Operations Branch procedures provide for the processing of small maintenance and test jobs during the prime shift, 15% of all batch jobs processed in the ten day sample period were

run during the peak demand period representing 8% of available time. These jobs use computer time that would otherwise be available for processing MEDLINE requests. We discussed these matters with OCCS officials who told us that most of the batch and staff jobs either deal with production jobs or tasks that could be run at times other than the peak MEDLINE demand periods.

To control the operation of the NLM computer system the Operations Branch, OCCS, has established standard operating procedures. In addition, a number of technical or built-in controls have been incorporated into the computer system. The control procedures provide for the identification, scheduling and monitoring of assignments. All jobs are identified by category and workload qualifiers are established to control the type of jobs being processed. A priority system based on the workload qualifiers is used to control the processing of jobs. The control system will not process a job unless all higher class jobs have been satisfied. Also, a time slicing feature limits the amount of time and resources any particular job can use at a given time. If the job being processed exceeds the allotted limits it will be placed in a job queue and continue to be processed when its turn comes up again. This process continues until the job is completed or aborted.

The control system, however, has not prevented large batch and on-line production jobs from being processed during the heavy, prime shift demand periods. As a result, responses to MEDLINE users have been delayed well beyond the established 10 second criteria. These delays may cause user dissatisfaction and adversely affect the Library's objective of disseminating biomedical data. In addition, increased response time increases user connect time and cost. This may not be significant on an individual inquiry basis but would be material on an overall basis.

NLM officials anticipate a continuing increase in MEDLINE use. Also, plans have been made to phase out the Honeywell systems and transfer all production to the IBM 370 system after the MEDLARS II processing system has become operational. While the design of the new system is intended to provide better and faster service, the failure to adequately monitor computer operations will result in only temporary improvements. Without proper scheduling and control of computer operations, overload periods will continue to occur during prime shift operations, second and third shift utilization will be lower than it should be, and quality of service to users will be reduced.

Recommendations

We recommended that NLM establish a centralized control function within OCCS to oversee all phases of computer operations. This function should be supported by formalized written procedures and provide for the monitoring and evaluation of computer operations on a continuing basis to insure a favorable processing combination of batch and on-line jobs and use of all computer resources. As an interim measure, until MEDLARS II becomes operational, NLM officials should determine for which job categories processing should be restricted to non-prime time.

The Director, Office of Administrative Management concurred on the need to establish centralized control over NLM's computer operations and told us that they are actively working to achieve this end. He said also that many of the batch production jobs which, during the audit, were being run during prime time have now been shifted to non-prime periods. In addition, he told us that installation of the second central processing unit in November 1974 had permitted NLM to respond to a sizeable increase in the volume of inquiries within an average of 5 seconds, well below the 10 second target.

DISPOSITION OF FEES

The Library's contractual arrangement with Tymshare, Inc. to use accessing fees collected by Tymshare, Inc. as an offset to the total amount owed by the Library to the contractor is inconsistent with the provisions of 31 U.S.C. 483a which requires that fees collected by Federal agencies be deposited into the Treasury.

The law (31 U.S.C. 483a) states, as follows: "It is the sense of the Congress that any work ... performed ... by any Federal agency ... to or for any person ... shall be self-sustaining to the full extent possible, and the head of each Federal agency is authorized by regulations....to prescribe such fee....as he shall determine....to be fair and equitable.. and any amount so determined....shall be collected and paid into the Treasury as miscellaneous receipts; provided, that nothing contained in this section shall repeal or modify existing statutes ... directing the disposition of any fee, charge, or price..."

The contract with Tymshare, Inc. provides, in part, as follows: "Task 2 - The Contractor will contact designated users of NLM services and, with the assistance of the NLM, execute a contract with these users. The contract will be an agreement between the Contractor and user where the user agrees to pay a portion of the Contractor's total charges for providing the data

communication services used to access NLM services. This portion paid by the user will be computed, using the special computational table provided to the Contractor by the NLM. The Contractor will invoice the user directly and will base the invoice on data captured by the Contractor (connect hours through the Contractor's network) and data provided by the NLM (connect hours for users not using the Contractor's network and number of pages of off-line prints). The Contractor will credit the amounts collected to charges applicable under this contract".

The intent of the arrangement is to have the user community bear a share of the cost of providing the service. To the extent that collections are made by the contractor, such a cost sharing relationship does exist. However, under the terms of the contract, the Library is responsible to Tymshare, Inc., for any receivable it is unable to collect. This contingent liability, in our opinion, dilutes and perhaps eliminates the cost sharing status of the arrangement.

We believe that the Library's collection and offset arrangement with Tymshare, Inc. constitutes a principal-agency relationship. We believe further that if the Library itself collected accessing fees from the user community, the fees would have to be deposited to the Treasury as miscellaneous receipts. The fact that the collections were made by the agent rather than the principal does not eliminate the requirement for deposit of the fees in the Treasury.

We have no doubt that rapid access to the Library's biomedical information is extremely useful to the user community and do not intend that such access be discontinued. In our opinion, however, arrangements should be made directly between the users and Tymshare for accessing the Library's data with Tymshare establishing, billing for, and collecting fees. Under such an arrangement, the Library's primary role would be to furnish data.

Although NLM officials did not object, in principle to the suggested contract modifications, they did have some concern over its impact on the data dissemination program. One such concern was the possibility that Tymshare, Inc. could increase significantly its charges for accessing the system. To preclude such action the current contract could be further modified to include a limitation on the amount the contractor could charge for system accessing unless the contractor justified to NLM the need for a higher charge for this service. Another factor which would tend to minimize unreasonable increases is the fact that Tymshare is not the sole source of such accessing services.

Another concern was the method for collecting and remitting to the Treasury a charge which NLM may wish to assess against the user community to minimize frivolous use and overload of the system. We have been advised informally by a representative of the Office of the General Counsel that it would be legally permissible to have Tymshare, Inc. or another contractor, act as collection agent for NLM. To provide control over the accuracy of remittances by the contractor, NLM would have to maintain records showing for each user the frequency of system use.

Recommendation

We recommended that NLM identify costs to be borne by the user community and those to be assumed by the Library. Once this determination is made, NLM should modify the current contract to eliminate the collection-offset arrangement applicable to costs chargeable to users and the contingent liability provisions. The modifications should include a limitation on contractor charges to users. If a decision is made to assess user charges, NLM should consider having collections and remittances made by a contractor acting as agent for NLM.

In responding to our draft report, the Director, Office of Administrative Management disagreed with our view that the offset arrangement with Tymshare, Inc. was inconsistent with the law. He did agree, however, that there was a need for a clearer and more effective method for collecting user fees. He told us that NLM is negotiating an agreement with the National Technical Information Service, Department of Commerce (NTIS) to serve as NLM's agent for invoicing and collecting user fees for the on-line bibliographic services. NTIS will retain a small portion of the collections to cover overhead and return the balance to the Treasury.

PAYMENTS FOR COMPUTER SERVICES MADE AT FIXED RATE IN LIEU OF USAGE BASIS

Payments to the State University of New York (SUNY) for computer services were being made at a fixed monthly rate although the contract terms provided for payments based on the actual amount of computer resources used. As a result, NLM may disburse funds in excess of services provided or be liable for additional payments, depending upon the actual amount of services used by NLM. This situation arose because of an apparent misunderstanding by contractor personnel and the project officer as to the effect of a contract modification.

The original contract was negotiated for \$157,269 to cover the period from January through July 1973. In accordance with the contract provisions SUNY billed NLM on a direct cost basis for the actual amount of computer resources used, furnishing NLM monthly computer utilization reports.

In July 1973, the contract was modified to extend the contract period and increase the total amount of services provided. According to SUNY correspondence, payments were to be made on the basis of the total funding cited in their proposal. Also, the NLM project officer stated that the contract was changed to a fixed price contract by the modifications and NLM would pay SUNY on that basis. We noted however, that the SUNY proposal and resulting contract modifications were prepared on the basis of charging for actual services used and did not change the contract from a cost to a fixed price contract. The contract has been extended two additional times, increasing the total estimated cost to \$649,545. Beginning July 1973, the contractor discontinued submitting monthly utilization reports and payments were made at a fixed monthly rate. In the absence of such reports, we were unable to determine the total difference between amounts due on a usage basis and at a fixed rate. However, based on reports for the period February through July 1974, obtained by the project officer after we brought this matter to the attention of contracting officials, payments due on a usage basis totaled about \$175 thousand actual payments for the period were \$140 thousand.

Contracting officials agreed that the contract provisions called for payments to SUNY for services actually used by NLM and not on a set or fixed payment basis. They said they would review the intent of the parties involved, as indicated in the contract negotiations, and take whatever action is warranted. We were subsequently informed by the Director of Administrative Management that a contract modification, clarifying the intent of NLM to be billed on the basis of services provided by SUNY, was being prepared.

APPENDIXES

44

RESPONSES GREATER THAN 20 SECONDS

RESPONSES
OVER 20
SECONDS

3350
3200
3050
3000
2850
2700
2550
2400
2250
2100
2000
1850
1700
1550
1400
1250
1100
950
800
650
500
350
200
150

DATA TAKEN FROM STEWART REPORTS,
OCCS, FOR PERIOD 8-12 & 22-26
JULY 1974 (10-days)

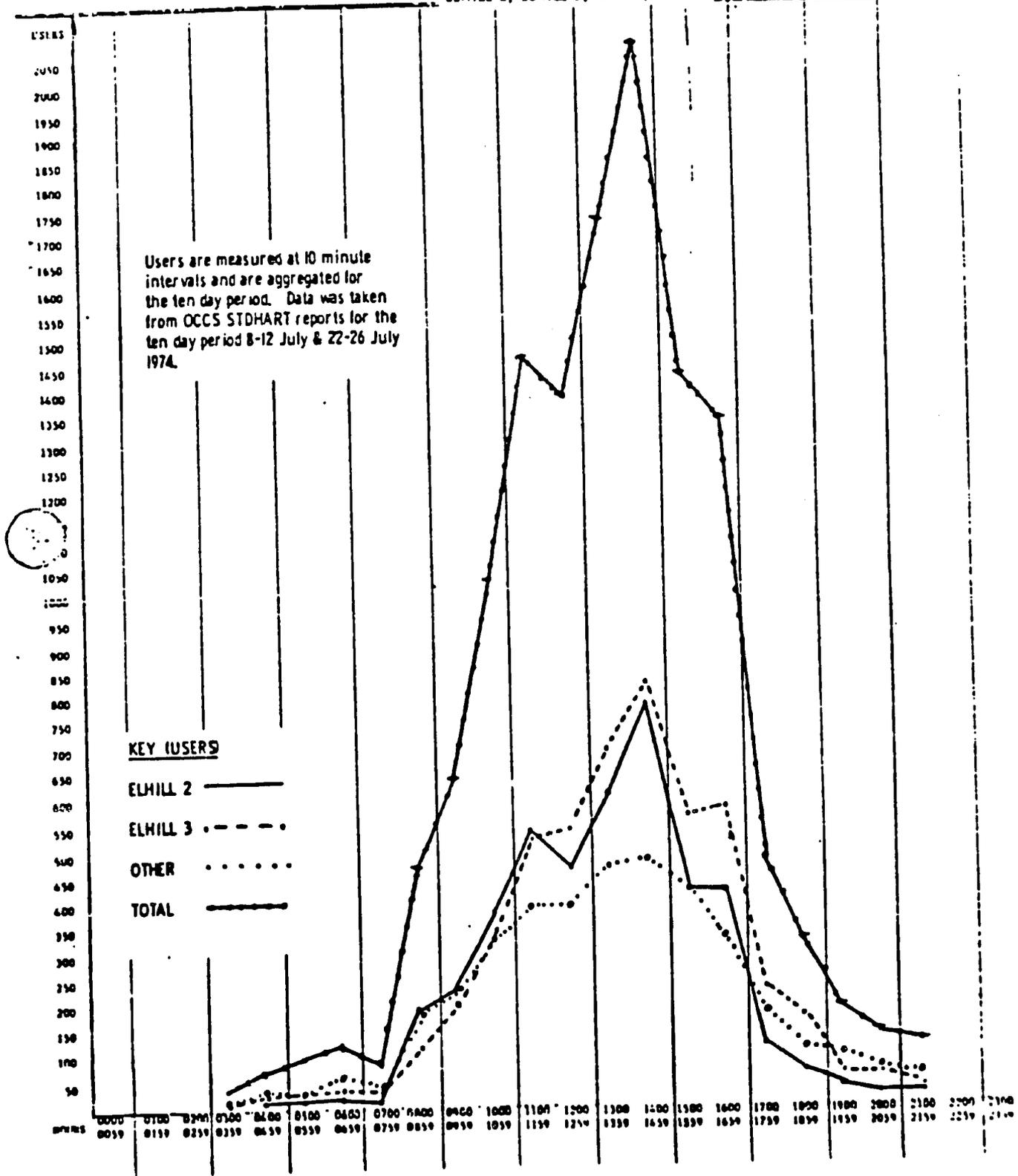
ELMILL 2 - - - - -
ELMILL 3 ————
TOTAL ————

HOURS 0000 0100 0200 0300 0400 0500 0600 0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200
 0059 0159 0259 0359 0459 0559 0659 0759 0859 0959 1059 1159 1259 1359 1459 1559 1659 1759 1859 1959 2059 2159 2259

45

APPENDIX B

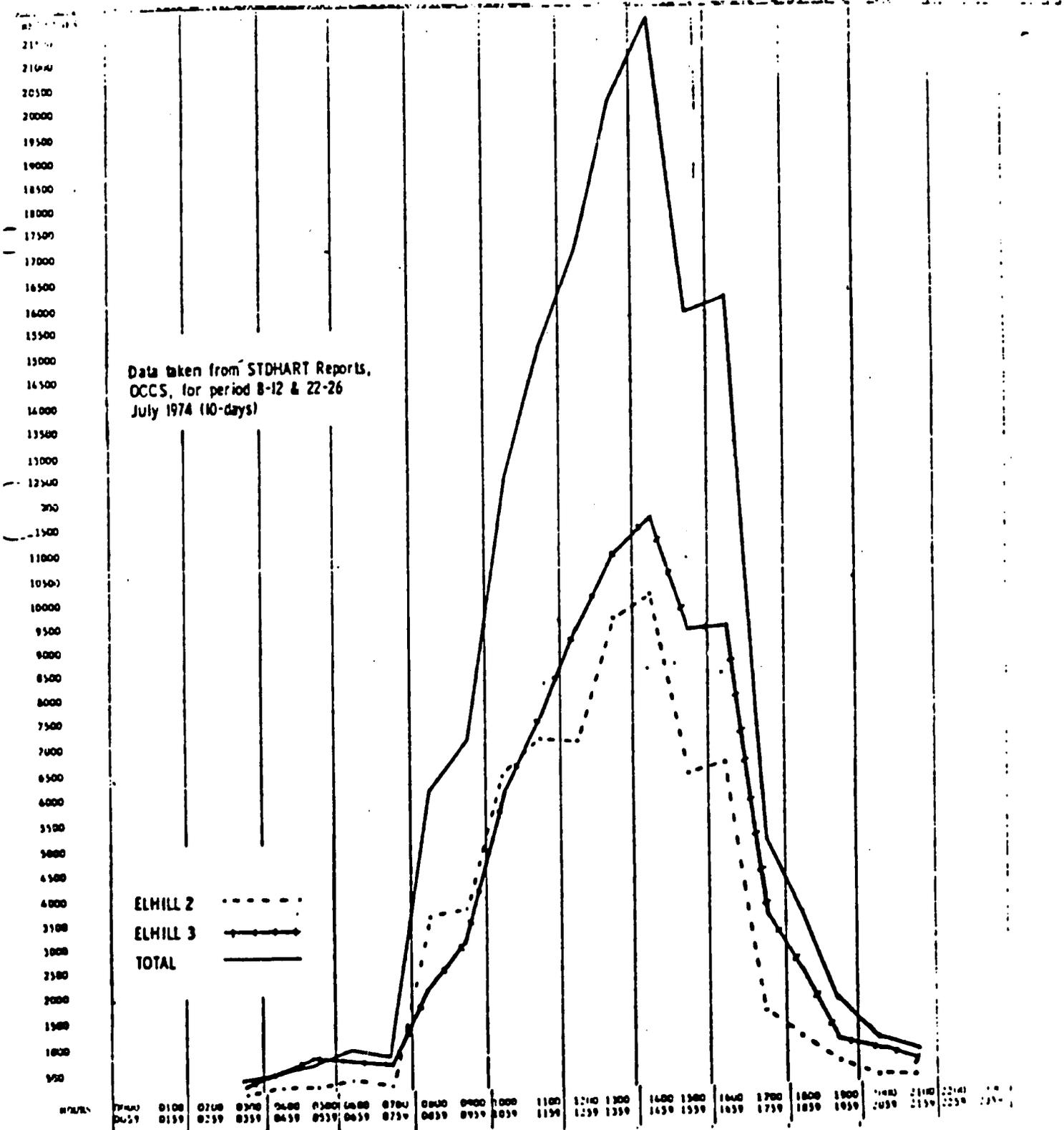
GRAPH OF USERS
ELHILL 2, ELHILL 3, OTHER, TOTALS



46

APPENDIX C

NUMBER OF RESPONSES
ELHILL 2, ELHILL 3, & TOTALS



47

MEMORANDUM

APPENDIX D
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service

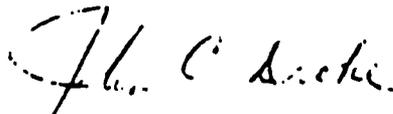
TO: Director
Washington Area Audit Office
HEW Audit Agency/OS

DATE: MAR 13 1975

FROM: Director
Office of Administrative Management

SUBJECT: HEW Audit Agency Draft Report on the Review of the Fee for Service
and Computer Operations of the National Library of Medicine - NIH

The enclosed comments and support documentation prepared by the
National Institutes of Health are transmitted in response to your
report dated January 29.


John C. Droke

Enclosure

dB

MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTE OF HEALTH

TO Director
Washington Area Audit Office
Through: Director, OAM, PHS

DATE March 6, 1975

FROM Director
Division of Management Survey and Review, OA, NIH

SUBJECT HEW Audit Agency Draft Report on Review of the Fee for Service and
Computer Operations of the National Library of Medicine

Appropriate NIH officials have reviewed the subject report. Following is the substance of their comments on the findings and recommendations contained in the report. If you desire further information about these matters, please get in touch with this office.

HEWAA NOTE

Director, Washington Area Audit Office

2

Disposition of Fees

We agree that NLM should have a clearer and more effective method for collecting user fees. We do not feel, however, that NLM's current arrangement with Tymshare, Inc., is inconsistent with the provisions of U.S.C. 483a. The HEW General Counsel concluded that the current arrangement is an appropriate method for sharing the costs for operating the system since NLM does not exert any control over the fees actually collected.

The NLM is currently negotiating a new billing and collection system. The Library plans to have an interagency agreement with the National Technical Information Service (NTIS), Department of Commerce, which will serve as NLM's agent for invoicing and collecting user fees from customers of the NLM on-line bibliographic services. Under the proposed terms of this agreement, on-line service users will be billed by NTIS at the rates established by NLM. The NTIS will use the collected fees to pay the added costs incurred in making access to and use of the on-line data bases available equally to any part of the United States. The NTIS will charge a modest overhead cost for its services and any excess earnings will be returned to the U.S. Department of the Treasury.

Management of Computer Operations

We agree that there is an urgent need to establish a centralized control function within the Office of Computer and Communications Systems (OCCS) to insure maximum utilization of computer resources. A task force established by the Director, NLM, arrived at this same conclusion last fall. One individual is being reassigned to develop a data base administration activity and, as attrition will allow, production control will be strengthened toward a centralized control function. In addition, objectives have been established to document procedures throughout OCCS.

The Audit Agency's observations concerning management of the NLM computer operations were essentially correct at the time these observations were made in July of 1974. Since that time NLM has made significant progress toward improving many of the problem areas noted by the auditors. The OCCS management has identified many batch production jobs which in the past were processed during the prime hours of usage. A significant number of these have been shifted so that sixty percent are now processed during other than prime time. The small batch jobs still being run during the prime day shift do not adversely affect service. In November 1974, NLM installed the second central processing unit for its multiprocessor system and as expected the situation eased significantly. Although January 1975 was the highest service month ever, with 7,730 hours of on-line services provided, response time averaged less than five seconds and only six percent of the service time went over the goal of ten-second response

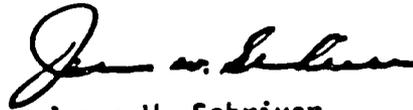
Director, Washington Area Audit Office

3

time. Improvements in production control and data base administration are expected to maintain the quality of future service.

Payments for Computer Services Made at Fixed Rate in Lieu of Usage Basis

In order to avoid any future misinterpretation of the SUNY contract and to express the true agreement of the contracting parties, the Office of Contracts Management, NLM, is preparing a modification to the contract. The modification will provide that the contractor bill for actual costs incurred in accordance with established contract unit prices with no maximum volume of service or dollar amount.



James W. Schriver

HEWAA NOTE: The deleted portion pertains to a matter discussed in the draft report but omitted from the final report.

Appendix D
Persons Contacted

Government Printing Office

Michael Bright, Assistant to the Superintendent
of Documents 275-3345

Information USA, Inc.

Matthew Lesko, President 657-1200

Department of Labor

Henry Lowenstern, Associate Commissioner,
Office of Publications 523-1327

Tom Zuromskis, Management Analyst, BLS 523-1971

Dennis Trippel, Chief, Division of Contract
Negotiations and ADP
Procurement, BLS 523-6445

National Academy of Sciences/BOSTID

Wendy White, Information Services Manager 334-2639

National Bureau of Standards

Thomas Gills, Office of Standard Reference
Materials 975-2016

Thomas Gary, Budget and Fiscal Office 975-2670

National Institutes of Health

Curtis Tate, Deputy Chief, Contracts Office 496-4422

Robert Lanman, Office of General Counsel 496-4108

Mark Rotariu, Budget Officer, National Library
of Medicine 496-6658

National Technical Information Service

Donald Budowsky, Program Manager, Policy and
Planning Office 487-4778

Walter Finch, Director of Product Management 487-4805

U.S. Marshals Service

Theodore Farfaglia

(912) 267-2564

U.S. House of Representatives

Robert Gellman, Counsel, Government Information,
Justice and Agriculture
Subcommittee, Committee on
Government Operations

277-3741

54