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UNITED STATES GENERAL ACCOUNTING OFFICE

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STATEMENT OF
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UNITED STATES GENERAL ACCOUNTING OFFICE
BEFORE THE
SUBCOMMITTEE ON PATENTS, COPYRIGHTS, AND TRADEMARKS
COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE
ON
THE PATENT AND TRADEMARK OFFICE'S
EFFORTS TO AUTOMATE ITS TRADEMARK OPERATIONS



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Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss the automation of trademark operations at the Department of Commerce's Patent and Trademark Office (PTO). PTO, in its 1982 Automation Master Plan, established three major goals for its trademark automation effort-- improved registration quality, cost-effectiveness, and reduced application processing time. In attempting to carry out these goals, PTO did not properly manage its automation efforts, including the use of exchange agreements to acquire automated trademark data.

My statement summarizes the findings, conclusions, and recommendations provided in our April 19, 1985, report to the Chairman of the House Committee on Government Operations entitled, Patent and Trademark Office Needs to Better Manage Automation of Its Trademark Operations (GAO/IMTEC-85-8). With your permission, I would like to submit this report for the record. Although we are continuing to review PTO's automation effort, my statement is limited to our findings as of April 19, 1985.

PTO's Administrator for Automation had responsibility for managing PTO's automation program. Since beginning its trademark automation program in 1981, PTO has spent over \$9 million to develop and operate three separate systems. These systems are intended to improve PTO's ability to monitor, retrieve, and search trademark information. PTO's monitoring and retrieval systems became operational in 1983 and early 1984, respectively. As of April 1985, the search system was not fully operational.

PTO has acquired its automatic data processing (ADP) services and equipment through monetary procurements and is obtaining the associated data bases through non-monetary arrangements, known

as exchange agreements. PTO's use of exchange agreements was specifically authorized by the Congress in Public Law 97-247 (approved on August 27, 1982). This authority allows PTO to use items or services of value rather than money to obtain needed goods or services.

Mr. Chairman, we found that PTO has encountered management problems while automating its trademark operations. PTO did not (1) thoroughly analyze or develop requirements analyses for its three automated trademark systems, (2) adequately assess the costs and benefits of trademark automation, (3) fully test its largest system before accepting it from a private contractor, and (4) properly manage its exchange agreements.

PTO has addressed or is addressing several of the problems we noted. However, we believe its efforts as of April 1985 are not enough to overcome all the problems.

CERTAIN USER REQUIREMENTS WERE NOT IDENTIFIED

Federal ADP management regulations required agencies to prepare a comprehensive requirements analysis before obtaining ADP systems. At a minimum, the analysis must include critical factors, such as a study of data entry, handling, and output needs, and the ADP functions that must be performed to fulfill an agency's mission.

Although PTO analyzed user needs, these analyses were inadequate because they did not specify all basic requirements for PTO's trademark systems. Such weaknesses often result, as they did in PTO, in agencies' acquiring systems that do not fully and effectively meet user needs. For example:

--PTO did not identify all essential features needed for its computer terminals used for data editing. As a result,

terminals costing \$46,000 were purchased without the necessary editing features. Although these terminals were replaced, the replacements were also deficient. These limitations contributed to an unacceptably high input error rate that necessitated a \$327,214 contract to verify and correct errors.

--A basic search capability, which Trademark Office and industry officials characterized as fundamental to trademark searching, was omitted from the search system. PTO corrected this problem later at a cost of about \$70,000.

--PTO also spent \$137,000 for its computer-assisted retrieval system before learning that it could not provide the print-out quality required by public users of the system. PTO planned to use this rarely used system for other purposes.

PTO has recognized the incompleteness of its requirements analysis. For example, in a March 1984 memorandum, PTO's Administrator for Automation commented, "The lack of a consolidated, coherent functional requirement document...is a continuing handicap in Trademarks."

AUTOMATION COSTS AND BENEFITS WERE NOT ADEQUATELY ASSESSED

Federal ADP management regulations also required that agencies justify automation activities with a comprehensive requirements analysis, including consideration of "the cost/benefits that will accrue...." PTO identified cost-effectiveness as a major goal of its trademark automation program. Yet in preparing its 1982 cost/benefit analysis of trademark automation, PTO used questionable assumptions not fully supported by analytical evidence and did not

discount¹ its analysis in developing a \$77 million expected operating cost savings. While PTO's Automation Office contends that the 1982 estimated operating cost reduction is still achievable, the Trademark Office questions the accuracy of this estimate which, among other things, assumed that automation would reduce its annual operating costs by about one-third.

When we recomputed the 1982 cost/benefit analysis using current cost data, an estimating methodology that properly incorporates discounting, as well as Trademark Office officials' assumptions, the original estimated savings became a cost increase. We could not, however, determine whether the Trademark Office's assumptions were more accurate than the original ones because there was insufficient evidence offered by PTO to support either set of assumptions. PTO's Administrator for Automation stated that he did not develop a more refined cost/benefit analysis because PTO's primary goal for trademark automation was to improve registration quality and not cost-effectiveness.

Similarly, PTO's two other major automation goals--improved registration quality and reduced application processing time--were not supported by thorough analysis. In this regard, PTO continued to rely on its manual system because the automated system was not reliable.

SEARCH SYSTEM ACCEPTED WITHOUT BEING FULLY TESTED

PTO accepted its most expensive system--the search system--in June 1984, before it was fully tested and before all identified problems were corrected. Although a PTO official characterized

¹Discounting is a standard practice by which expected future cash flows are estimated and reduced to reflect the time value of money.

system problems as minor, the system had not yet met all essential contract specifications. For example, in April 1985 the system could not accommodate the number of simultaneous searches required by the contract. PTO officials told us in April 1985 that they plan to request further contractor corrections.

PROBLEMS EXPERIENCED WITH EXCHANGE AGREEMENTS

In 1983, PTO signed exchange agreements with three different companies to develop computer tapes from PTO's records. These tapes comprise the data base of trademark information to be used in the new automated systems. According to PTO officials, the agreements were properly entered under their exchange agreement authority, were developed using appropriate procedures, and were economical. We found several problems with these agreements. Although PTO received benefits from the exchanges, we noted that (1) the benefits received were less than those provided to the companies, (2) maximum practical competition on two agreements was not obtained, and (3) PTO did not adequately consider all future impacts of the exchanges on itself or the public.

The first problem occurred because PTO and the exchange agreement companies initially placed no value on the provision that PTO would limit public access to its data base. PTO received complaints from the trademark industry about this restriction and later sought to amend the agreements to allow the public full access to the search system. The subsequent amendments to the agreements assigned the restrictions an estimated present value of \$3.18 million, which PTO was to collect in the form of a \$30-per-hour royalty fee charged to the public and then pay to the companies.

As of April 1985, this fee was not established, and PTO stated that it intended to renegotiate the exchange agreements, thereby lifting some or all of the public access restrictions.

Because PTO did not consider exchange agreements to be procurements, it did not follow procurement regulations. In contrast, we concluded that exchange agreements were procurements of commercial ADP support services subject to the requirements of the Brooks Act and Federal Procurement Regulations. In addition, we found that PTO did not obtain maximum practical competition as required by the Federal Procurement Regulations on two of the three agreements. Nor did PTO develop specific criteria for deciding when exchanges rather than monetary contracts should be used.

Finally, PTO did not adequately consider all future impacts of the exchange agreements on itself or the public. For example, PTO relinquished control over the use of some of its ADP resources and was required to renegotiate with the companies before it could allow the public to have full access to its automated search system. PTO also restricted its ability to disseminate trademark data using existing technology, such as allowing remote access to its search system through microcomputers. In addition, PTO proposed to charge the public a \$70-per-hour fee--\$30 for the royalty fee and \$40 for other search system costs. These fees contrast with the free access the public has for manual searching.

RECOMMENDATIONS

To help ensure that automation goals and appropriate procurement practices are met, we recommended that the Secretary of Commerce direct the Acting Commissioner of Patent and Trademarks to:

- Reanalyze thoroughly the cost and benefits of PTO's trademark automation activities and ensure that any additional expenditures are justified.
- Review and, if necessary, revise PTO's systems specifications to ensure that all key requirements to support the system's use by PTO personnel and by the public are met.
- Make all reasonable efforts to expeditiously and economically acquire unrestricted ownership of the trademark data bases obtained through the exchange agreements.
- Establish criteria for determining when future ADP resource exchange agreements should be used and develop procedures to ensure that these exchanges comply with applicable federal procurement regulations.

To ensure appropriate oversight, we recommended that the Secretary of Commerce review and approve PTO's response to these recommendations to assure that they are properly implemented. We added that, if PTO does not take steps to implement the above recommendations regarding exchange agreements, the Congress should consider withdrawing PTO's exchange agreement authority for ADP resource acquisitions.

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Mr. Chairman, this concludes my prepared remarks. I welcome any questions you may have.