

United States General Accounting Office

GAO

Report to the Chairman, Subcommittee on
Foreign Commerce and Tourism,
Committee on Commerce, Science, and
Transportation, U.S. Senate

January 1989

EXPORT PROMOTION

Status of Commerce's Worldwide Commercial Information Management System



About Our New Cover . . .

The new color of our report covers represents the latest step in GAO's efforts to improve the presentation of our reports.

**National Security and
International Affairs Division**

B-208993

January 23, 1989

The Honorable John D. Rockefeller IV
Chairman, Subcommittee on Foreign Commerce and Tourism
Committee on Commerce, Science, and Transportation
United States Senate

Dear Mr. Chairman:

This report responds to your request of October 26, 1988, that we analyze the U.S. and Foreign Commercial Service's (US&FCS) Commercial Information Management System (CIMS) and provide the Subcommittee with a report on our work prior to the confirmation hearings on nominees for senior Commerce Department positions. Specifically, you asked us to assess CIMS' availability, data collection methods, quality of information, and budget. As arranged with your representatives, we are providing this interim report on the status of CIMS' implementation. We are continuing our overall assessment of CIMS' operations, including estimated future costs, and will provide a final report at a later date.

A primary mission of the Department of Commerce's International Trade Administration (ITA) is to help U.S. firms establish themselves in the export marketplace. The US&FCS, a major component of the ITA, collects, analyzes, and distributes commercial information to the U.S. business community and government trade policymakers in pursuit of this goal. The ITA considers timely collection and delivery of this trade information to be essential to its usefulness. CIMS is the ITA's third attempt since 1978 to develop a comprehensive, automated trade information data base to achieve this objective.

CIMS is designed to link the US&FCS' 126 overseas posts and 48 domestic offices to a central data base in ITA headquarters. The central data base will contain three major files—(1) the client file (a list of domestic and foreign traders), (2) a research file (a repository of market research reports), and (3) an events file (which contains upcoming trade promotion activities). CIMS is a major technical and cost undertaking and its design and implementation, to a large extent, have been driven by State Department system automation and security requirements for overseas installations. In 1987, CIMS full implementation costs were estimated to be \$39 million through 1993, not including the \$13.4 million spent on two previous automation attempts.

Results in Brief

CIMS currently has some operational capability in 68 US&FCS offices. Delays in CIMS full implementation have been caused by a combination of technical, management, and resource problems. At this time, it is not clear what the final system will look like, what it will be capable of doing, or what it will cost. The system has no final design and is being implemented on a piecemeal basis as funds are available. Moreover, as new equipment and software needs are being identified, existing equipment is becoming obsolete. It is questionable whether the system will reach its full potential without greater involvement of top management. A brief discussion of our findings follow, and additional details are available in appendix I.

Operational Status

CIMS is operational in all district offices, except Alaska, and 21 overseas posts. Necessary equipment to perform limited functions is in place, CIMS software has been installed, and the staffs have been given some CIMS training. Seven additional overseas posts are scheduled to have CIMS software installed by the end of February 1989. US&FCS plans to have CIMS installed in all remaining overseas posts by the end of 1989, but there are a number of factors which raise doubts that this milestone will be met. Although all posts have the necessary hardware, numerous technical, coordination, and scheduling problems remain to be resolved.

While CIMS is now operational at 68 sites, it appears that it will be some time before the system will be used in a routine and daily manner as an integral part of the US&FCS export promotion efforts. Many of the trade specialists we interviewed said CIMS is slow and cumbersome to use and takes time away from their proactive, outreach export promotion efforts. Consequently, it is not used extensively at some locations. Some staff, however, are optimistic and believe that CIMS will eventually improve. A new, improved version of the existing CIMS software is currently being installed which should enhance the staff's ability to access and manipulate CIMS files, and further software improvements are scheduled to be made by the end of 1989. However, funds to either upgrade existing computers or replace them with up-to-date machines are not provided for in the 1990 budget and problems are expected—particularly with the central computer in ITA headquarters, which has reached capacity and is becoming obsolete.

Data Base Quality

Although some efforts have been made to address concerns raised in our recent report on ITA export promotion programs¹, data base quality continues to be a major concern. The accuracy of client files remains questionable, the market research file is limited, and some reports are not current. Resources needed to adequately maintain the data base have not been identified, and funding for market research continues to be uncertain.

The central CIMS data base presently includes only two elements: a client file and a market research file. Our previous work has shown that data base development varies significantly from office to office because different criteria have been used to develop client files and some offices lack sufficient support staff to create or maintain current client files. The market research data base, a key component of CIMS, now contains 1,400 reports, but some trade specialists we interviewed said the market research file is not only difficult to access but contains outdated information and is limited in scope. According to agency officials, no funds were spent on contract market research in fiscal year 1988, \$500,000 is expected to be spent in fiscal year 1989, and no funds are expected to be made available in fiscal year 1990.² Agency officials said these funding limitations will restrict the development of the market research data base. The third component of the data base, a listing of upcoming trade events, is not scheduled to be added to CIMS until late 1989.

Budgetary Support

Funding for the CIMS project has often been delayed, inadequate, or uncertain. In the early years (1984 and 1985), equipment purchases were delayed because of inadequate requirements documentation and other administrative and management concerns of various Commerce and ITA organizations. In recent years, funding has not been adequate to meet the implementation schedule, and it has not always been clear how much could be spent and when the funds would be available. US&FCS Officials stated that sporadic or uncertain funding may have contributed to some questionable procurement decisions, particularly as related to contract market research. A complete year-by-year analysis of budget requests and actual expenses for CIMS will be provided in our final report.

¹Export Promotion: Problems In Commerce's Programs (GAO/NSIAD-89-44, Jan. 1989).

²These figures do not include the amounts paid for the 16 market research assistants posted overseas who perform limited market research studies.

The record and our discussions with various Commerce officials indicate that continuing uncertainty over CIMS' viability and a questionable senior Commerce Department management commitment to the system appear to have contributed to the delay in CIMS' full implementation. We believe and program officials agree that CIMS may continue to languish with only minimal capability if its technical and resource problems are not addressed by senior Commerce officials. CIMS implementation problems have serious ramifications because it is expected to be the building block of the Export Promotion Data System of the National Trade Data Bank established by the Omnibus Trade and Competitiveness Act of 1988.

As requested, we did not obtain formal agency comments on this report, however, we discussed it with appropriate Commerce Department officials and have made modifications to reflect their comments.

Copies of this report are being sent to the Director General of the U.S. and Foreign Commercial Service, various congressional committees and other interested parties and will be made available to others on request. The principal GAO staff members responsible for this review were Benjamin Nelson, Stephen Lord, and Alison Pascale.

If you have any questions, please contact me on (202) 275-4812.

Sincerely,



Allan I. Mendelowitz, Director
Trade, Energy, and Finance Issues

Contents

Letter	1
<hr/>	
Appendix I	8
Commerce's	Introduction 8
Worldwide	Availability 9
Commercial	Data Collection and Quality 11
Information	Budget 13
Management System	Conclusions 14
<hr/>	
Appendix II	15
US&FCS Sites Where	
CIMS Is Installed or	
Scheduled to Be	
Installed	
<hr/>	
Appendix III	17
Objectives, Scope, and	
Methodology	

Abbreviations

AITS	Automated Information Transfer System
ATI	American Traders Index
CIMS	Commercial Information Management System
FTI	Foreign Traders Index
GAO	General Accounting Office
IEP	International Economic Policy
ITA	International Trade Administration
TD	Trade Development
US&FCS	U.S. and Foreign Commercial Service
WITS	Worldwide Information and Trade System

Commerce's Worldwide Commercial Information Management System

Introduction

A primary mission of the Department of Commerce's International Trade Administration (ITA) is to expand exports of U.S. goods and services. The ITA attempts to involve more U.S. businesses in exporting through various export promotion programs and services and through the sale of marketing publications. Key overseas promotional activities include trade shows, trade missions, and product-specific market analyses.

Within ITA, three units share responsibility for export promotion—the U.S. and Foreign Commercial Service (US&FCS), International Economic Policy (IEP), and Trade Development (TD). Two principal objectives of the US&FCS are to increase the number of new-to-export firms—particularly small- and medium-sized firms—making a successful commitment to foreign trade and to encourage existing exporters to expand into new markets. The foreign operations of the US&FCS consist of about 150 commercial officers at 126 posts in 65 countries. The officer corps is augmented by about 450 foreign service nationals. Domestically, US&FCS export promotion services are available from trade specialists in 48 district offices and 18 branch offices.

As part of its duties, the ITA collects, analyzes, organizes, and distributes commercial information gathered by its worldwide network of overseas and domestic field offices. This information includes trade contacts, trade opportunity leads, industry reports, and market research. It is used by TD to design trade promotion events and to prepare marketing publications. IEP uses the data in developing advice on U.S. government trade policy and in developing country-specific publications. ITA has long recognized that an automated system could speed the delivery of this information worldwide and enhance the effectiveness of its export promotion efforts.

The Commercial Information Management System (CIMS) is ITA's third attempt to develop an automated, comprehensive trade information system. Its first attempt in 1978, the Worldwide Information and Trade System (WITS), was designed to link key overseas posts and district offices to a central data base by satellite. This effort only proceeded through the prototype stage because of high projected costs and opposition from members of the Information Industry Association, who contended that the government was competing with their publishing and information dissemination efforts. In 1981, the WITS project was abandoned, and a new more limited automation project, the Automated Information Transfer System (AITS), was started. AITS was designed to be a decentralized system focusing on automating existing client files and

customer lists so that local data bases could be used to generate mailing lists and provide other information services. Problems in staff training, technical capability, and data base management limited AITS' usefulness. CIMS was designed to use data files established under its two predecessors. CIMS is being planned and implemented by US&FCS' Office of Export Promotion Services—with programming and technical support from contractors.

Availability

CIMS is in various stages of implementation both domestically and overseas. As of January 1989, 68 sites (47 district offices and 21 overseas posts) have the hardware, software, and training necessary to perform basic CIMS functions. These locations should be able to create and update CIMS files and perform a limited number of functions within their own data base. Seven additional overseas posts are scheduled to have CIMS installed by the end of February 1989. Appendix II is a listing of the 47 domestic and 21 overseas posts where CIMS is operational, and the seven sites where installation has been scheduled by the end of February 1989.

Although program officials said all remaining overseas posts will have CIMS installed by the end of 1989, it is unclear whether this milestone will be met because of a State Department moratorium on installing CIMS software at some overseas posts. The moratorium was imposed while the State Department upgraded its operating systems and it is now being lifted on a post-by-post basis. Additionally, it is uncertain if travel funds will be available for headquarters instructors to go to all of these locations to provide the training. Agency documents also show that numerous technical, coordination, and scheduling problems must be overcome for this milestone to be met.

The status of major steps associated with full system implementation is outlined below.

Hardware—The overseas posts and domestic district offices currently have the basic hardware (mini-computers, personal computers, and printers) necessary to perform limited functions with the CIMS software. Hardware purchases to achieve a ratio of two persons per screen were completed in June 1988. Several field staff told us that because the system is slow and difficult to use, a ratio of one person per screen must be achieved to encourage greater usage. Currently, many staff have to move to workstations away from their desks (in some locations to a different room) in order to use CIMS.

Program officials said about 50 sites are totally dependent on personal computers that were purchased about three to five years ago and are obsolete in terms of capability and servicing. Funds to upgrade some of these personal computers were made available in the fiscal year 1989 budget. However, no funds were approved to upgrade or replace aging mini-computers and the central computer in ITA headquarters. CIMS program officials told us the central computer is only in operation part of each day due to the lack of operations staff and can only handle a limited number of inquiries simultaneously. According to these officials, the computer does not have the capacity to handle the additional work load that will develop when all of the posts become operational. The program office estimates that it will cost approximately \$300,000 to replace this computer—not including other associated costs such as peripherals and operating system software.

Software development—Three versions of CIMS software have been developed—a COBOL version for the overseas posts with access to mini computers (COBOL is the only language the State Department permits on its shared systems), a “Knowledgeman” version for those with personal computers, and a “Speed II” version for headquarters and district office mini-computers. The program manager agreed that the multiple versions of software have the potential to create maintenance problems and increase operating costs. All of the original versions are being replaced by a new, enhanced version of the existing software which should enhance the staff’s ability to access and manipulate CIMS files, and further software improvements are scheduled to be made by the end of fiscal year 1989. The US&FCS is currently in the process of awarding a \$1.5 million contract for this software development effort.

According to some CIMS users we interviewed, the system is difficult to access and was generally characterized as “slow and cumbersome.” During one of our visits to a district office, we waited over one and a half hours for a single market research retrieval which was unsuccessful. Some trade specialists told us that it can often take over one half hour to enter or update a single record in the client file. The time required to enter or update records is in part due to the lack of user training and familiarity with the system. Because of a lack of support staff in the district offices we visited, US&FCS professional staff are updating and retrieving CIMS files. US&FCS officials said the problems we found at the locations we visited may not be representative of the system as a whole.

Telecommunications capability—At various times, CIMS has been billed as a direct link connecting major overseas posts and domestic district

offices to a central data base.¹ Currently, CIMS does not have this capability.

Although all of the domestic district offices can access the CIMS network, the present system does not provide interactive, on-line retrieval capability between the foreign posts and central data base in Washington, D.C., or between the foreign posts and the district offices. Program officials told us cost considerations and State department security restrictions have eliminated the possibility of having an on-line system with all overseas posts.

Under current law, the Department of Commerce is required to create a national warehouse of export promotion data. The Omnibus Trade and Competitiveness Act of 1988 requires that by August 23, 1990, the Secretary of Commerce establish a National Trade Data Bank consisting of two systems—the International Economic Data System and the Export Promotion Data System. The Export Promotion Data System is expected to be an expansion of the CIMS data base.

Data Collection and Quality

The central data base currently has two major components—the client data base and the market research data base. A third component, an events data base, i.e., an electronic calendar for international trade promotion events, is scheduled to be added to the system by the end of 1989.

The client file is made up of information from the Foreign Traders Index (FTI) and the American Traders Index (ATI). The information for the FTI comes from foreign posts. At present, posts in 33 countries provide input into the FTI file. The information for the ATI comes from the client contacts that are entered into CIMS at the district offices. The majority of these contacts are AITS records that were converted to the CIMS format. The value of these records is questionable because some posts never updated their AITS files and no guidelines were issued to govern the types of contact to be entered into the system. Several of the trade specialists we interviewed questioned the accuracy of the foreign client files maintained by the overseas posts.

¹For example, in appropriations hearings for fiscal year 1988, the Under Secretary for International Trade stated that CIMS information would "come off of the computer system on a real-time basis so that the business firm gets it virtually immediately." Also, a Department of Commerce advertising brochure titled "We Put the World at Your Fingertips", claims the system "links the information resources of all our posts and offices worldwide to provide you with the wealth of timely, in-depth data at their command."

The market research file includes such ITA publications as the Overseas Business Reports, Foreign Economic Trends, international market research reports, and industry sector analyses. Currently, approximately 1,400 reports are in the market research file. According to ITA budget officials, no funds were spent on contract market research in fiscal year 1988, \$500,000 is expected to be spent on contract market research in fiscal year 1989, and no funds are expected to be made available in fiscal year 1990.² Agency officials said these funding limitations will restrict the development of the market research data base. The events data base, a listing of upcoming trade events, is not scheduled to be added to CIMS until late 1989.

Some district office staff told us they limit their use of material in the market research data base because the material in it is dated and confined to a relatively few high-technology sectors. Some district office staff also believe that CIMS should make greater use of the information currently available within other ITA entities, such as International Economic Policy and Trade Development. In response to this complaint, US&FCS headquarters officials said that almost half of the documents in the market research file were completed in either 1987 or 1988.

In our earlier report we pointed out that data base development and system maintenance issues plagued the CIMS predecessor, the AITS system. We found that data base development varied from post to post and appeared to be based largely on the personal enthusiasm of the Senior Commercial Officer and his judgement as to what priority to give the task. Some posts we visited had created thousands of records while others made only minimal efforts.

We also noted in our previous review of ITA export promotion programs that the overseas posts and domestic district offices had not been instructed on how to develop and maintain their data bases as required by OMB Circular No. A-130.³ For example, one large post was building some files from advertisements in trade magazines, while another reportedly purchased and entered into the system a standardized industrial directory. Because of these deficiencies, we concluded that the post

²These figures do not include the amounts paid for the 16 market research assistants posted overseas who perform limited market research studies.

³OMB Circular No. A-130 requires federal agencies to ensure that information systems operate effectively and contain accurate data. This requirement applies to data collection, processing, transmission, and dissemination. User groups should be given technical and management support as well as guidance on how to develop, implement, and operate the information system.

and district office AITS client files may have contained information that was of limited use.

In its response to our recent report, which raised concerns about data base quality, the US&FCS said it has a user hotline and has begun issuing CIMS "alerts" and a CIMS newsletter. New quick reference guidelines are also scheduled to be introduced by the end of January 1989.

Budget

Funding for the CIMS project has often been delayed, inadequate, or uncertain. In the early years (1984 and 1985), equipment purchases were delayed because of inadequate requirements documentation and other administrative and management concerns by various Commerce and ITA organizations. In recent years, funding has not been adequate to meet the implementation schedule, and it has not always been clear how much could be spent and when the funds would be available. US&FCS officials stated the sporadic or uncertain funding may have contributed to some questionable procurement decisions, particularly as related to contract market research. A complete analysis of budget requests and actual expenditures for CIMS will be provided in our final report which will be issued at a later date.

Budget requests to support CIMS' scheduled implementation have been reduced due to overall funding constraints. Program officials said these funding shortfalls have contributed to implementation delays. Equipment purchases and training have been delayed, and funding for market research has been sporadic. In particular, travel funds were often not available for CIMS program office staff to make site visits and oversee the installation of CIMS software and train staff on its use. According to ITA budget officials, funds to purchase market research and, in some cases equipment, have only been available as operating surpluses in other programs have been identified. District office staff also told us that the lack of adequate support staff make it difficult to routinely update all client files and make market research retrievals. We noted that all three district offices we visited had unfilled support staff positions but they were not able to fill them because of budget restrictions.

At this time it is not clear what the final system will look like or how much it will cost. Because of funding uncertainties, the system has been implemented in a piecemeal fashion, and US&FCS officials have not arrived at a final design and cost for the system. The latest cost projection available was prepared in 1987—which estimated full implementation and operational costs to be about \$39 million dollars through 1993;

this is in addition to the \$13.4 million spent on two previous automation attempts. The Director of the US&FCS Office of Commercial Information Management estimates that it will cost more to implement CIMS than previously estimated. For example, these figures do not include the amounts dedicated to maintaining the quality of the market research data base, a key component of the CIMS system, nor do they include recently identified equipment needs such as an upgraded central data base computer and new personal computers.

The CIMS project has also been hindered by legal restrictions on the fees that can be charged for CIMS outputs. As stated in our recent report on ITA's export promotion programs, ITA/US&FCS had planned to use fees charged CIMS customers to cover a part of the systems' direct operating cost. For fiscal year 1988, sales targets were \$4 million. In making these projections, US&FCS apparently did not take into consideration relevant statutes which limit fees that can be assessed requesters of publicly available information. In January 1987, Commerce's General Counsel issued an opinion stating that fees must be limited to the actual or estimated cost of the output. Because of restrictions on fees that could be charged and the limited overall operating capacity, actual fiscal year 1988 collections were less than \$1 million.

Conclusions

It is not clear when CIMS will be fully operational, what it will cost, or what it will be capable of doing. Numerous technical, operational and resources problems remain to be resolved. As we stated in our earlier report, we believe that CIMS may continue to languish with only minimal capability if its technical and resource problems are not addressed by senior Commerce officials. Commerce management needs to exercise strong and sustained management and oversight of the project in order for it to succeed.

CIMS implementation problems have serious ramifications because CIMS is expected to be the building block of the Export Promotion Data System of the National Trade Data Bank established by the Omnibus Trade and Competitiveness Act of 1988. The act requires the Secretary of Commerce to establish a National Trade Data Bank by August 23, 1990.

US&FCS Sites Where CIMS Is Installed or Scheduled to Be Installed

District offices with CIMS Installed

1.	Alabama	- Birmingham	25.	Omaha	- Nebraska
2.	Arizona	- Phoenix	26.	Nevada	- Reno
3.	Arkansas	- Little Rock	27.	New Jersey	- Trenton
4.	California	- Los Angeles	28.	New Mexico	- Albuquerque
5.		- San Diego	29.	New York	- Buffalo
6.		- San Francisco	30.		- New York
7.	Colorado	- Denver	31.	North Carolina	- Greensboro
8.	Connecticut	- Hartford	32.	Ohio	- Cincinnati
9.	Florida	- Miami	33.		- Cleveland
10.	Georgia	- Atlanta	34.	Oklahoma	- Oklahoma City
11.		- Savannah	35.	Oregon	- Portland
12.	Hawaii	- Honolulu	36.	Pennsylvania	- Philadelphia
13.	Illinois	- Chicago	37.		- Pittsburgh
14.	Indiana	- Indianapolis	38.	Puerto Rico	- San Juan
15.	Iowa	- Des Moines	39.	South Carolina	- Columbia
16.	Kentucky	- Louisville	40.	Tennessee	- Nashville
17.	Louisiana	- New Orleans	41.	Texas	- Dallas
18.	Maryland	- Baltimore	42.		- Houston
19.	Massachusetts	- Boston	43.	Utah	- Salt Lake City
20.	Michigan	- Detroit	44.	Virginia	- Richmond
21.	Minnesota	- Minneapolis	45.	Washington	- Seattle
22.	Mississippi	- Jackson	46.	West Virginia	- Charleston
23.	Missouri	- St. Louis	47.	Wisconsin	- Milwaukee
24.		- Kansas City			

Overseas posts with CIMS Installed

1.	Argentina	- Buenos Aires	12.	Greece	- Athens
2.	Australia	- Sydney	13.	Indonesia	- Jakarta
3.	Austria	- Vienna	14.	Malaysia	- Kuala Lumpur
4.	Belgium	- Brussels	15.	Mexico	- Mexico City
5.	Brazil	- Brasilia	16.	Japan	- Tokyo
6.	Canada	- Montreal	17.	Singapore	
7.		- Ottawa	18.	United Kingdom	- London
8.		- Toronto	19.	Venezuela	- Caracas
9.	Colombia	- Bogota	20.	West Germany	- Bonn
10.	Egypt	- Cairo	21.		- Frankfurt
11.	France	- Paris			

(continued)

Appendix II
US&FCS Sites Where CIMS Is Installed or
Scheduled to Be Installed

Overseas Posts Scheduled for CIMS Installations by February 1989

1.	Brazil	- Sao Paulo	5.	Nigeria	- Lagos
2.	Chile	- Santiago	6.	Peru	- Lima
3.	Ivory Coast	- Abidjan	7.	South Africa	- Johannesburg
4.	Kenya	- Nairobi			

Objectives, Scope, and Methodology

Senator John D. Rockefeller IV, Chairman, Subcommittee on Foreign Commerce and Tourism, Senate Committee on Commerce, Science, and Transportation, requested us to review CIMS' operations and provide the Subcommittee with a status report prior to the confirmation hearings for nominees for senior Department of Commerce positions. Specifically, we were asked to assess CIMS' availability, data collection methods, and quality of information, and budget.

Some of the audit work on issues addressed in this report was completed as part of our recent comprehensive review of US&FCS operations¹ during which we visited 20 posts in 10 countries. Where appropriate, this work was updated with information obtained from agency planning and budget documents and through interviews with responsible program officials. In addition, we visited US&FCS district offices in New York, Atlanta, and Miami from December 1988 to January 1989. Using structured techniques, we interviewed district directors, trade specialists, systems administrators, and support staff to obtain their views on CIMS. To obtain a better understanding of CIMS operations, all audit team members participated in a comprehensive CIMS demonstration at ITA headquarters prior to the start of this review. Our work was performed in accordance with generally accepted government auditing standards.

¹Export Promotion: Problems in Commerce's Programs (GAO/NSIAD-89-44, Jan. 1989).



Requests for copies of GAO reports should be sent to:

**U.S. General Accounting Office
Post Office Box 6015
Gaithersburg, Maryland 20877**

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are \$2.00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

Orders must be prepaid by cash or by check or money order made out to the Superintendent of Documents.

United States
General Accounting Office
Washington, D.C. 20548

Official Business
Penalty for Private Use \$300

First-Class Mail
Postage & Fees Paid
GAO
Permit No. G100
