



Testimony

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U.S. CUSTOMS SERVICE

Observations on Selected Operations and Program Issues

Statement of Laurie E. Ekstrand, Director
Administration of Justice Issues
General Government Division
and
Randolph C. Hite, Associate Director
Governmentwide and Defense Information Systems
Issues
Accounting and Information Management Division



G A O

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U.S. Customs Service: Observations on Selected Operations and Program Issues

Mr. Chairman and Members of the Subcommittee,

I am pleased to be here today to discuss our observations on the Customs Service's development of a Resource Allocation Model (RAM), on an Automated Commercial Environment (ACE), and on our recently released report on Customs' airline passenger personal searches. While these are three distinct issues, all are extremely important to optimizing the quality and efficiency of Customs' operations. My testimony is based on products we issued during 1998 on Customs' resource allocation process, and on limited new work in response to your recent request. In addition, my testimony discusses several products concerning ACE that we issued during 1999, and our recently issued Customs' airline passenger inspection report.¹

In relation to both RAM and ACE, Customs has responded to our recommendations and has moved forward. However, in both cases, more needs to be done. In relation to Customs' airline passenger personal searches, Customs made some changes prior to the release of our report that could result in more effective operations.

Customs' Resource Allocation Process and Model Development

In 1998, we reported on selected aspects of the Customs Service's process for determining its need for inspectors and canine enforcement officers to process commercial cargo or land and sea passengers at all of its 301 ports.²

At the time of our 1998 report, Customs had not conducted a needs assessment to determine its agencywide needs for all inspectional personnel. It did, however, conduct three needs assessments aimed at specific program objectives. Because of their focus on specific ports and enforcement objectives, they could not be the basis for accurately estimating the agencywide need for inspectional personnel and their appropriate allocation to ports.

In our 1998 report, we identified significant discrepancies in the workload data we obtained from Customs headquarters, one Customs Management Center (CMC), and two ports. We are mentioning these data quality problems because, as I will explain later, the accuracy and reliability of

¹ U.S. Customs Service: Better Targeting of Airline Passengers for Personal Searches Could Produce Better Results (GAO/GGD-00-38, Mar. 17, 2000).

² Customs Service: Process for Estimating and Allocating Inspectional Personnel (GAO/GGD-98-107, Apr. 30, 1998), Customs Service: Inspectional Personnel and Workloads (GAO/GGD-98-170, Aug 14, 1998), and Customs Service: Inspectional Personnel and Workloads (GAO/T-GGD-98-195, Aug. 14, 1998).

some workload data inputs to the new RAM appear questionable. We further concluded and recommended that for Customs to successfully implement the Government Performance and Results Act³ (GPRA), which requires it to link performance to results, it had to determine its needs for personnel for all of its operations and ensure that they are allocated where they are needed most.

Customs, responding to our 1998 report recommendation, awarded a contract for the development of a resource allocation model. The model is intended to estimate the number of inspectors and other personnel needed to process passengers and inspect cargo at all ports of entry.

Objectives and Scope of Our Current RAM Work

You asked us to determine the current status of the RAM and how it, as a methodology, estimates personnel needs agencywide. We selected the Los Angeles International Airport (LAX), John F. Kennedy International Airport (JFK), Los Angeles/Long Beach Seaport, and Port of New York/Newark all previously addressed in our 1998 report, as the focus of our current work.

The Resource Allocation Model

Customs contracted with PricewaterhouseCoopers (PwC) in September 1998 to develop a RAM. PwC delivered a model based on two methodologies, regression analysis and activity analysis, on schedule in March 1999 at a cost of \$556,000.

The RAM predicts what staffing levels will be needed agencywide and locally by occupation (e.g., inspectors and canine enforcement officers) and by core functions (e.g., passenger processing) on a yearly basis. The RAM uses actual and estimated workload, staffing, cost, and performance data in predicting future staffing needs. Fiscal year 1998 data are used as the baseline because they were the most recent for which an entire year of data was available.

According to Customs, RAM results may be used to support budget requests, planning, analysis of “what if” scenarios (e.g., if Congress appropriates funds for staffing at a particular location), and audits. However, Customs maintains that it is not intended to be used as a business process improvement tool. That is, it will not be used to analyze opportunities to reduce passenger waiting and cargo examination times. Customs also indicated that the RAM is not intended to be used to reallocate existing resources from one location or one function to another.

³ Government Performance and Results Act of 1993, P.L. 103-62.

Customs officials told us that they are still in the early stages of analyzing the model results and fully understanding its capabilities. PwC has been retained to do additional work to make the model's results more understandable and easier to use.

The Department of the Treasury and the Office of Management and Budget (OMB) have reviewed the detailed RAM results for fiscal year 2000, and are currently reviewing fiscal years 2001 and 2002 results, according to Customs officials. Consequently, Customs made fiscal year 2000 results available to us in time for this testimony, but not the port-level 2001 and 2002 results.

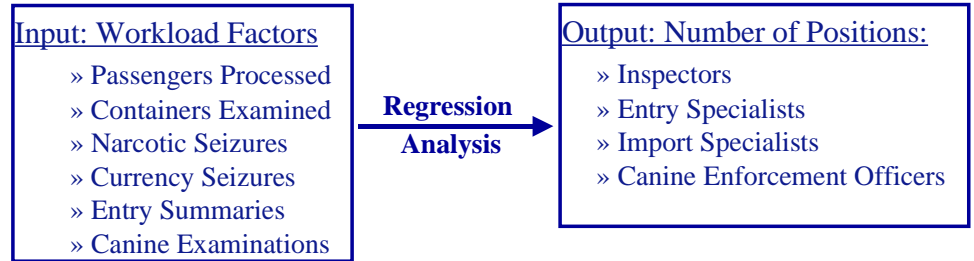
RAM Methodology

RAM components include inputs, regression analysis, activity analysis, and results modules. RAM input data systems include

- Automated Commercial System (ACS),
- Case Management Information System,
- Cost Management Information System (CMIS),
- Customs Automated Port Profile System (CAPPS),
- Customs Integrated Personnel/Pay System (CIPPS),
- Detector Dog System (K-9),
- Operations Management Report Database (OMR), and
- Regulatory Audit Management Information System (RAMIS).

Using inputs from these data systems, the RAM performed two separate analyses to predict staffing needs by occupation and location: regression analysis, and activity analysis. Regression analysis predicted the number of positions at each location using the factors shown in figure 1.

Figure 1: Regression Analysis Inputs and Outputs



Source: GAO Analysis of Customs' Data.

PwC ultimately decided not to use regression analysis as the only method to predict staffing needs because it did not account for infrastructure differences between ports and because it yielded some illogical results. Unaccounted for differences between ports included:

- Passenger processing: number of facilities, multiple duty tours for inspectors, automation systems, numbers and diversity of flights, threat factors.
- Cargo inspection: container examinations, hours of operation, number of entries, type and experience of brokers, use of longshoremen.

Examples of illogical regression analysis results included the following:

- Three inspector positions were predicted for Bath, Maine, a port that had no previous inspector presence and, according to Customs, required none.
- 147 inspectors were predicted for Memphis, Tennessee, a highly automated FedEx hub requiring, according to Customs, approximately 28 inspectors.

Activity analysis also predicts the number of positions needed to complete a task by location, and used fiscal year 1998 workload data as the baseline. It uses workload (e.g., number of passengers), workload assumptions (e.g., percent of passengers examined and percent increases in passenger volume), and workload activity times (e.g., time required to process one passenger) to predict the number of positions needed.

The activity analysis formula is:

$[\text{Workload} \times \text{Workload Activity Time}] / \text{One Staff Year}^4 = \text{Predicted Number of Positions (e.g., inspectors).}$

PwC and Customs concluded that the activity analysis is a better method for predicting needed positions. By using the workload activity times, differences between ports, including automation and facilities, may be accounted for. For example, highly automated ports would likely show lower workload activity times than would ports with fewer automated processes.

RAM Results

The RAM activity analysis predicted

- staffing needs for 8 core occupations (e.g., inspectors) and 15 mission support occupations or organizations (e.g., intelligence specialists or the Office of Field Operations) at 462 locations (e.g., ports and CMCs) for fiscal years 2000, 2001, and 2002;
- the need for 722 more inspectors, an increase of 9.4 percent, from 7,677 positions in fiscal year 1998 to 8,399 positions in fiscal year 2000; and
- the need for an aggregate staffing increase of 4,564 Customs positions, an increase of 23.5 percent, from 19,428 positions in fiscal year 1998 to 23,992 positions in fiscal year 2002.

We reviewed the detailed activity analysis estimates for fiscal year 2000 for LAX, JFK, Los Angeles/Long Beach Seaport, and the Port of New York/Newark. Figure 2 displays the number of inspectors at these ports in fiscal year 1998 and the predicted number of inspectors needed in fiscal year 2000.

⁴ A staff year is equal to 2,087 staff hours.

Figure 2: Baseline and Predicted Number of Inspectors at Selected Ports

Port	FY 1998 Baseline	FY 2000 Predicted	Total Increase	Percent Increase
LAX	360	380	20	5.6
JFK	591	644	53	9.0
LA/Long Beach Seaport	147	166	19	12.9
Port of NY/Newark	395	442	47	11.9

Note: Port of NY/Newark includes both the NY/Newark Seaport and the Newark International Airport.
Source: GAO Analysis of Customs' data.

Data Reliability Issues

The accuracy and reliability of some RAM input data are questionable. For example, we reported in February 2000 that CMIS data based on surveys lacked adequate supporting documentation to verify the estimated time Customs personnel spent on air and sea passenger processing activities.⁵ In addition, the methods Customs used to complete the surveys were inconsistent among ports. Even a small amount of imprecision in the CMIS data can have a large effect on RAM results. Customs is, however, developing a system to capture data at the activity level through modifications to its Customs Overtime and Scheduling System (COSS) that should improve the reliability of CMIS data.

We also observed, and PwC documented, certain anomalies concerning the OMR and CMIS databases. For example:

- CMIS data indicated air passenger processing activity by the Port of Champlain-Rouses Point, New York, although the OMR database contained no air passenger processing data for the port.
- The OMR database indicated that the Port of Buffalo, New York, processed air passengers, although CMIS did not contain any air passenger data for the port.

⁵ U.S. Customs Service: Reasonableness of Costs for Processing Air and Sea Passengers Cannot Be Determined. (GAO/AIMD/GGD-00-94R, Feb. 29, 2000).

Finally, we observed that activity times for specific processes (e.g., cargo inspections) differed significantly from port to port. These differences could be the result of unexplained variations in the CMIS data or because of actual differences in automation, employee skills, importer sophistication, or cargo variations (e.g., textiles vs. vehicles) at the different ports. In any event, the RAM is a potentially viable tool for Customs to use in estimating its personnel needs. However, in accordance with our previously cited April 1998 recommendation, we believe that more verification needs to be performed on some questionable RAM input data. Customs data improvement efforts, such as the COSS modifications, should reduce some concerns about the accuracy and reliability of RAM input data.

Customs Is Positioning Itself to Begin Acquisition of a New Import Processing System

Customs' need to revamp the way it does business in its import arena is undeniable. Its existing import processes are paper-intensive, error-prone, transaction-based, and out of step with just-in-time inventory practices of the trade community. Put simply, its approach to enforcing trade import laws and regulations, and assessing and collecting import duties, taxes, and fees, which total \$22 billion annually, is not responsive to the needs of Customs or its commercial clients.

Since 1994, Customs has tried unsuccessfully to modernize import processing by building what it calls its Automated Commercial Environment, or ACE. In February 1999,⁶ we reported on the reasons for Customs' inability to produce a new import processing system. Specifically, we stated that Customs was building ACE without (1) having a complete and enforced enterprise architecture, (2) knowing that it was a cost-effective solution, and (3) employing software engineering rigor and discipline. As a result, Customs did not know whether ACE, as it was defined at the time, was the right system solution (i.e., a cost effective solution), and its approach to investing in ACE would not allow it to determine this before it had already invested hundreds of millions of dollars. Moreover, even assuming that its definition of ACE was the right solution, Customs was not employing the requisite system engineering discipline to reasonably ensure that ACE would meet specified requirements, and be delivered within cost and schedule goals. In short, Customs did not know whether it was doing the right thing, the right way. To address these weaknesses, we made a series of detailed recommendations that Customs agreed to implement.

⁶ Customs Service Modernization: Serious Management and Technical Weaknesses Must Be Corrected (GAO/AIMD-99-41, Feb. 26, 1999).

We are pleased to say that Customs has already taken significant actions to implement some of our recommendations. For example, the Treasury Department and Customs have addressed our concern about possible duplication and incompatibilities between ACE and the Treasury system development effort, known as the Integrated Trade Data System, by combining the two efforts. Similarly, Customs has addressed our recommendation for completing an enterprise systems architecture in order to provide the needed agencywide business and technological context within which to permit optimization of ACE's business value and mission performance.

We are also encouraged by Customs' clear commitment to seeing that the fundamental acquisition and investment management capabilities that our remaining recommendations call for are firmly in place before investing huge sums of money in ACE. For example, Customs' draft request for proposals for its systems modernization integration contractor requires that the contractor/subcontractors possess mature software development capabilities. Also, Customs has developed a software acquisition improvement plan aimed at Customs possessing the necessary software acquisition maturity to effectively manage its contractor. By implementing and adhering to mature software acquisition processes, and by requiring its contractor/subcontractors to have mature development capabilities, Customs will increase the likelihood of ACE being built and deployed successfully.

Also consistent with our recommendations, Customs' acquisition plan for ACE calls for investing in the system in four increments in order to minimize the inherent risk associated with large, multiyear system acquisition projects. For each increment, Customs plans to task its integration contractor with preparing a life-cycle cost estimate and realistic and supportable benefit expectations. It also plans to make funding of each increment conditional upon the results of a return-on-investment assessment and compliance with its enterprise systems architecture. Further, once an increment is completed, Customs plans to validate that actual costs and benefits are meeting expectations and to use this information in deciding whether to invest in further system increments. By doing so, Customs will be able to minimize the risks associated with investing huge sums of money over many years in a large monolithic system.

Nevertheless, much remains to be accomplished before Customs is fully positioned to begin building a large, expensive software-intensive system like ACE. For some of these open areas, Customs says it cannot complete

them until funds are made available to do so, and for others, Customs' plans call for first hiring a systems integration contractor to assist the agency in fulfilling its commitments to fully implement our recommendations. The fact that the success of these planned actions is thus to-be-determined, combined with the more than \$1 billion expected cost of ACE and its criticality to achieving more effective and efficient import processing and to supporting billions of dollars in revenue collection, continues to make ACE a high-risk endeavor that we plan to monitor closely.

Customs' Airline Passenger Inspections

The Customs Service faces a major challenge in effectively carrying out its drug interdiction and trade enforcement missions, while facilitating the flow of cargo and persons into the United States. To carry out its mission, Customs inspectors are authorized to detain and search airline passengers they suspect may be bringing contraband, such as illegal drugs, into the country. Concerns have been raised about Customs' policies and procedures for selecting or "targeting" passengers for examinations and conducting personal searches, including strip-searches and x-rays.

We were asked to review Customs' policies and procedures for conducting personal searches and to determine the controls Customs has in place to ensure that airline passengers are not inappropriately selected or subjected to personal searches.

Our analysis of personal search data for fiscal years 1997 and 1998 was limited to data contained in Customs databases, and therefore focused on the passenger characteristics available for 102,000 arriving international passengers whom Customs subjected to some form of personal search. As a result, we could not include in our analysis any information about the remainder of the approximately 140 million international passengers who arrived during fiscal years 1997 and 1998, including passengers who had only their baggage searched.

Better Targeting of Airline Passengers for Personal Searches Could Produce Better Results

Inspectors select passengers for further examination on the basis of Customs' policies and procedures and their professional judgment and experience. Of the 102,000 arriving passengers subjected to some sort of personal search, we reported⁷ that 95 percent were searched by inspectors for contraband (e.g., illegal drugs) or hidden weapons by patting the passenger's clothed body (commonly referred to as a frisk or patdown), 4 percent were strip-searched, and 1 percent were subjected to an x-ray

⁷ U.S. Customs Service: Better Targeting of Airline Passengers for Personal Searches Could Produce Better Results (GAO/GGD-00-38, Mar. 17, 2000).

exam. About 3 percent of the passengers frisked or patted down had positive results (i.e., contraband was found), 23 percent of the strip-searches were positive, and 31 percent of the x-ray searches were positive.

Generally, searched passengers of particular races and gender were more likely than other passengers to be subjected to more intrusive types of personal searches (being strip-searched or x-rayed) after being subjected to frisks or patdowns. However, in some cases, those types of passengers who were more likely to be subjected to more intrusive personal searches were not as likely to be found carrying contraband.

Specifically, White men and women and Black women were more likely than Black men and Hispanic men and women to be strip-searched rather than patted down or frisked, but they were less likely to be found carrying contraband. The most pronounced difference occurred with Black women who were U.S. citizens. They were 9 times more likely than White women who were U.S. citizens to be x-rayed after being frisked or patted down in fiscal year 1998. But, on the basis of the x-ray results, Black women who were U.S. citizens were less than half as likely to be found carrying contraband as White women who were U.S. citizens.

We recommended that Customs compare the characteristics of those passengers subjected to personal searches with the results of those searches to better target passengers carrying contraband.

During the course of our review, Customs developed new policies and procedures for personal searches that include new requirements for supervisory review and approval and procedures intended to ensure that passengers subjected to personal searches know their rights. We identified management controls, such as training provided to inspectors and supervisors on conducting personal searches and more systematic evaluation of complaints, that Customs uses to help ensure that inspectors use their search authority fairly and judiciously. In conjunction with improved data on the characteristics of those passengers subjected to personal searches, these policies and controls could better safeguard the rights of U.S. citizens and the traveling public.

Mr. Chairman, this concludes my prepared statement. I will be pleased to answer any questions you or members of the Subcommittee may have.

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