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GAO

Report to Congressional Committees

March 2005

INFORMATION TECHNOLOGY

Customs Automated Commercial Environment Program Progressing, but Need for Management Improvements Continues

GAO-05-267

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Customs Automated Commercial Environment Program Progressing, but Need for Management Improvements Continues

GAO Accountability·Integrity·Reliability

Highlights

Highlights of GAO-05-267, a report to the Subcommittees on Homeland Security, Senate and House Committees on Appropriations

Why GAO Did This Study

The Department of Homeland Security (DHS) is conducting a multiyear, multibillion-dollar acquisition of a new trade processing system, planned to support the movement of legitimate imports and exports and strengthen border security. By congressional mandate, plans for expenditure of appropriated funds on this system, the Automated Commercial Environment (ACE), must meet certain conditions, including GAO review. This study addresses whether the fiscal year 2005 plan satisfies these conditions, describes the status of DHS's efforts to implement prior GAO recommendations for improving ACE management, and provides observations about the plan and DHS's management of the program.

What GAO Recommends

To help ensure the success of ACE, GAO recommends, among other things, that DHS define and implement an ACE accountability framework that provides for establishment of explicit program commitments for expected system capabilities and benefits as well as cost and schedule, and ensures that progress against these commitments is measured and reported. DHS agreed with GAO's recommendations and described actions that it plans to take to respond to them.

www.gao.gov/cgi-bin/getrpt?GAO-05-267.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Randolph C. Hite at (202) 512-3439 or hiter@gao.gov.

What GAO Found

The fiscal year 2005 ACE expenditure plan, including related program documentation and program officials' statements, largely satisfies the legislative conditions imposed by the Congress. In addition, some of the recommendations that GAO has previously made to strengthen ACE management have been addressed, and DHS has committed to addressing those that remain. However, much remains to be done before these recommendations are fully implemented. For example, progress has been slow on implementing the recommendation that the department proactively manage the dependencies between ACE and related DHS border security programs. Delays in managing the relationships among such programs will increase the chances that later system rework will be needed to allow the programs to interoperate.

Among GAO's observations about the ACE program and its management are several regarding DHS's approach to addressing previously identified cost and schedule overruns. DHS has taken actions intended to address these overruns (such as revising its baselines for cost and schedule, as GAO previously recommended); however, it is unlikely that these actions will prevent future overruns, because DHS has relaxed system quality standards, meaning that milestones are being passed despite material system defects. Correcting such defects will require the program to use resources (e.g., people and test environments) at the expense of later system releases. Until the ACE program is held accountable not only for cost and schedule but also for system capabilities and benefits, the program is likely to continue to fall short of expectations.

Finally, the usefulness of the fiscal year 2005 expenditure plan for congressional oversight is limited. For example, it does not adequately describe progress against commitments (e.g., ACE capabilities, schedule, cost, and benefits) made in previous plans, which makes it difficult to make well-informed judgments on the program's overall progress. Also, in light of recent program changes, GAO questions the expenditure plan's usefulness to the Congress as an accountability mechanism. The expenditure plan is based largely on the ACE program plan of July 8, 2004. However, recent program developments have altered some key bases of the ACE program plan and thus the current expenditure plan. In particular, the expenditure plan does not reflect additional program releases that are now planned or recent changes to the roles and responsibilities of the ACE development contractor and the program office. Without complete information and an up-to-date plan, meaningful congressional oversight of program progress and accountability is impaired.

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Abbreviations

ACE	Automated Commercial Environment
ACS	Automated Commercial System
CBP	U.S. Customs and Border Protection
CBPMO	Customs and Border Protection Modernization Office
CIO	chief information officer
CMU	Carnegie Mellon University
EA	enterprise architecture
eCP	e-Customs Partnership
EVM	earned value management
IDIQ	indefinite-delivery/indefinite-quantity
IEEE	Institute of Electrical and Electronics Engineers
IRB	Investment Review Board
ITDS	International Trade Data System
IV&V	independent verification and validation
JAR	Java Archive
OIG	Office of Inspector General
OIT	Office of Information and Technology
ORR	operational readiness review
OTB	Over Target Baseline
PRR	production readiness review
PTR	program trouble report
SA-CMM®	Software Acquisition Capability Maturity Model
SAT	system acceptance test
SDLC	systems development life cycle
SEI	Software Engineering Institute
SIT	system integration test
SWIT	software integration test
TRR	test readiness review
UAT	user acceptance test
US-VISIT	United States Visitor and Immigrant Status Indicator Technology

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Accountability * Integrity * Reliability

United States Government Accountability Office
Washington, D.C. 20548

March 14, 2005

The Honorable Judd Gregg
Chairman
The Honorable Robert C. Byrd
Ranking Minority Member
Subcommittee on Homeland Security
Committee on Appropriations
United States Senate

The Honorable Harold Rogers
Chairman
The Honorable Martin Olav Sabo
Ranking Minority Member
Subcommittee on Homeland Security
Committee on Appropriations
House of Representatives

In November 2004, U.S. Customs and Border Protection (CBP), within the Department of Homeland Security (DHS), submitted to the Congress its fiscal year 2005 expenditure plan for the Automated Commercial Environment (ACE) program. ACE is to be CBP's new import and export processing system. The program's goals include facilitating the movement of legitimate trade through more effective trade account management and strengthening border security by identifying import and export transactions that could pose a threat to the United States. DHS currently plans to acquire and deploy ACE in 11 increments, referred to as releases, over 9 years. The first 3 releases are deployed and operating. The fourth release is in the final stages of testing. Later releases are in various stages of definition and development. The risk-adjusted ACE life-cycle cost estimate is about $3.3 billion,[1] and through fiscal year 2004, about $1 billion in ACE-appropriated funding has been provided.

As required by DHS's fiscal year 2005 appropriations,[2] we reviewed the ACE fiscal year 2005 expenditure plan. Our objectives were to (1) determine whether the expenditure plan satisfies certain legislative conditions, (2) determine the status of our open ACE recommendations,

[1]CBP's ACE life-cycle cost estimate not adjusted for risk is about $3.1 billion.

[2]Pub. L. 108-334 (Oct. 18, 2004).

and (3) provide any other observations about the expenditure plan and DHS's management of the ACE program.

On December 20, 2004, we briefed your offices on the results of this review. This report transmits the results of our work. The full briefing, including our scope and methodology, can be found in appendix I.

Compliance with Legislative Conditions

The fiscal year 2005 expenditure plan satisfied or partially satisfied the conditions specified in DHS's appropriations act. Specifically, the plan, including related program documentation and program officials' statements, satisfied or provided for satisfying all key aspects of (1) meeting the capital planning and investment control review requirements of the Office of Management and Budget (OMB) and (2) review and approval by DHS and OMB. The plan partially satisfied the conditions that specify (1) compliance with the DHS enterprise architecture[3] and (2) compliance with the acquisition rules, requirements, guidelines, and systems acquisition management practices of the federal government.

Status of Open Recommendations

CBP is working toward addressing our open recommendations. Each recommendation, along with the status of actions to address it, is summarized below.

- Develop and implement a rigorous and analytically verifiable cost-estimating program that embodies the tenets of effective estimating as defined in the Software Engineering Institute's (SEI) institutional and project-specific estimating models.[4]

The CBP Modernization Office's (CBPMO) implementation of this recommendation is in progress. CBPMO has (1) defined and documented

[3]An enterprise architecture is an institutional blueprint for guiding and constraining investments in programs like ACE.

[4]SEI's institutional and project-specific estimating guidelines are defined respectively in Robert E. Park, *Checklists and Criteria for Evaluating the Cost and Schedule Estimating Capabilities of Software Organizations*, CMU/SEI-95-SR-005, and *A Manager's Checklist for Validating Software Cost and Schedule Estimates*, CMU/SEI-95-SR-004 (Pittsburgh, Pa.: Carnegie Mellon University Software Engineering Institute, 1995).

processes for estimating expenditure plan costs (including management reserve costs); (2) hired a contractor to develop cost estimates, including contract task orders, that are independent of the ACE development contractor's estimates; and (3) tasked a support contractor with evaluating the independent estimates and the development contractor's estimates against SEI criteria. According to the summary-level results of this evaluation, the independent estimates either satisfied or partially satisfied the SEI criteria, and the development contractor's estimates satisfied or partially satisfied all but two of the seven SEI criteria.

- Ensure that future expenditure plans are based on cost estimates that are reconciled with independent cost estimates.

CBPMO's implementation of this recommendation is complete with respect to the fiscal year 2005 expenditure plan. In August 2004, CBP's support contractor completed an analysis comparing the cost estimates in the fiscal year 2005 expenditure plan (which are based on the ACE development contractor's cost estimates) with the estimate prepared by CBPMO's independent cost estimating contractor; this analysis concluded that the two estimates are consistent.

- Immediately develop and implement a human capital management strategy that provides both near- and long-term solutions to the program office's human capital capacity limitations, and report quarterly to the appropriations committees on the progress of efforts to do so.

CBPMO's implementation of this recommendation is in progress, and it has reported on its actions to the Congress. Following our recommendation, CBPMO provided reports dated March 31, 2004, and June 30, 2004, to the appropriations committees on its human capital activities, including development of a staffing plan that identifies the positions it needs to manage ACE. However, in December 2004, CBPMO implemented a reorganization of the modernization office, which makes the staffing plan out of date. As part of this reorganization, CBP transferred government and contractor personnel who have responsibility for the Automated Commercial System,[5] the Automated Targeting System,[6] and ACE training

[5]The Automated Commercial System is CBP's system for tracking, controlling, and processing imports to the United States.

[6]The Automated Targeting System is CBP's system for identifying import shipments that warrant further attention.

from non-CBPMO organizational units to CBPMO. According to CBPMO, this change is expected to eliminate redundant ACE-related program management efforts.

- Have future ACE expenditure plans specifically address any proposals or plans, whether tentative or approved, for extending and using ACE infrastructure to support other homeland security applications, including any impact on ACE of such proposals and plans.

CBP's implementation of this recommendation is in progress. In our fiscal year 2004 expenditure plan review,[7] we reported that CBPMO had discussed collaboration opportunities with DHS's United States Visitor and Immigrant Status Indicator Technology (US-VISIT) program[8] to address the potential for ACE infrastructure, data, and applications to support US-VISIT. Since then, ACE and US-VISIT managers have again met to identify potential areas for collaboration between the two programs and to clarify how the programs can best support the DHS mission. The US-VISIT and ACE programs have formed collaboration teams that have drafted team charters, identified specific collaboration opportunities, developed timelines and next steps, and briefed ACE and US-VISIT program officials on the teams' progress and activities.

- Establish an independent verification and validation (IV&V) function to assist CBP in overseeing contractor efforts, such as testing, and ensure the independence of the IV&V agent.

CBP has completed its implementation of this recommendation. To ensure independence, CBPMO has selected an IV&V contractor that, according to CBP officials, has had no prior involvement in the modernization program. The IV&V contractor is to be responsible for reviewing ACE products and management processes and is to report directly to the CBP chief information officer.[9]

[7]GAO, *Information Technology: Early Releases of Customs Trade System Operating, but Pattern of Cost and Schedule Problems Needs to Be Addressed*, GAO-04-719 (Washington, D.C.: May 14, 2004).

[8]US-VISIT is a governmentwide program to collect, maintain, and share information on foreign nationals in order to enhance national security and facilitate legitimate trade and travel while adhering to U.S. privacy laws.

[9]According to a CBP official, the IV&V contract was awarded on December 30, 2004.

- Define metrics, and collect and use associated measurements, for determining whether prior and future program management improvements are successful.

CBPMO's implementation of this recommendation is in progress. CBPMO has implemented a program that generally focuses on measuring the ACE development contractor's performance through the use of earned value management,[10] metrics for the timeliness and quality of deliverables, and risk and issue disposition reporting. Additionally, it is planning to broaden its program to encompass metrics and measures for determining progress toward achieving desired business results and acquisition process maturity. The plan for expanding the metrics program is scheduled for approval in early 2005.

- Reconsider the ACE acquisition schedule and cost estimates in light of early release problems, including these early releases' cascading effects on future releases and their relatively small size compared to later releases, and in light of the need to avoid the past levels of concurrency among activities within and between releases.

CBP has completed its implementation of this recommendation. In response to the cost overrun on Releases 3 and 4, CBPMO and the ACE development contractor established a new cost baseline of $196 million for these releases, extended the associated baseline schedule, and began reporting schedule and cost performance relative to the new baselines. Additionally, in July 2004, a new version of the ACE Program Plan was developed that rebaselined the ACE program, extending delivery of the last ACE release from fiscal year 2007 to fiscal year 2010, adding a new screening and targeting release, and increasing the ACE life-cycle cost estimate by about $1 billion to $3.1 billion. Last, the new program schedule reflects less concurrency between future releases.

- Report quarterly to the House and Senate Appropriations Committees on efforts to address open GAO recommendations.

CBP's implementation of this recommendation is in progress. CBP has submitted reports to the committees on its efforts to address open GAO

[10]Earned value management is a method of measuring contractor progress toward meeting deliverables by comparing the value of work accomplished during a given period with that of the work expected in that period.

recommendations for the quarters ending March 31, 2004, and June 30, 2004. CBPMO plans to submit a report for the quarter ending September 30, 2004, after it is approved by DHS and OMB.

Observations on Management of ACE

We made observations related to ACE performance, use, testing, development, cost and schedule performance, and expenditure planning. An overview of the observations follows:

Initial ACE releases have largely met a key service level agreement. According to a service level agreement between the ACE development contractor and CBPMO, 99.9 percent of all ACE transactions are to be executed successfully each day. The development contractor reports that ACE has met this requirement on all but 11 days since February 1, 2004, and attributed one problem that accounted for 5 successive days during which the service level agreement was not met to CBPMO's focus on meeting schedule commitments.

Progress toward establishing ACE user accounts has not met expectations. CBPMO established a goal of activating 1,100 ACE importer accounts by February 25, 2005, when Release 4 is to become operational. Weekly targets were established to help measure CBPMO's progress toward reaching the overall goal. However, CBPMO has not reached any of its weekly targets, and the gap between the actual and targeted number of activated accounts has continued to grow. To illustrate, as of November 26, 2004, the goal was 600 activated accounts and the actual number was 311.

Release 3 testing and pilot activities were delayed and have produced system defect trends that raise questions about decisions to pass key milestones and about the state of system maturity. Release 3 test phases and pilot activities were delayed and revealed system defects, some of which remained open at the time decisions were made to pass key life-cycle milestones. In particular, we observed the following:

- Release 3 integration testing started later than planned, took longer than expected, and was declared successful despite open defects that prevented the system from performing as intended. For example, the test readiness milestone was passed despite the presence of 90 severe defects.

- Release 3 acceptance testing started later than planned, concluded later than planned, and was declared successful despite having a material

inventory of open defects. For example, the production readiness milestone was passed despite the presence of 18 severe defects.

- Release 3 pilot activities, including user acceptance testing, were declared successful, despite the presence of severe defects. For example, the operational readiness milestone was passed despite the presence of 6 severe defects.

- The current state of Release 3 maturity is unclear because defect data reported since user acceptance testing are not reliable.

Release 4 test phases were delayed and overlapped, and revealed a higher than expected volume and significance of defects, raising questions about decisions to pass key milestones and about the state of system maturity. In particular, we observed the following:

- Release 4 testing revealed a considerably higher than expected number of material defects. Specifically, 3,059 material defects were reported, compared with the 1,453 estimated, as of the November 23, 2004, production readiness milestone.

- Changes in the Release 4 integration and acceptance testing schedule resulted in tests being conducted concurrently. As we previously reported, concurrent test activities increase risk and have contributed to past ACE cost and schedule problems.

- The defect profile for Release 4 shows improvements in resolving defects, but critical and severe defects remain in the operational system. Specifically, as of November 30, 2004, which was about 1.5 weeks from deployment of the Release 4 pilot period, 33 material defects were present.

Performance against the revised cost and schedule estimates for Releases 3 and 4 has been mixed. Since the cost and schedule for Releases 3 and 4 were revised in April 2004, work has been completed under the budgeted cost, but it is being completed behind schedule. In order to improve the schedule performance, resources targeted for later releases have been retained on Release 4 longer than planned. While this has resulted in improved performance against the schedule, it has adversely affected cost performance.

The fiscal year 2005 expenditure plan does not adequately describe progress against commitments (e.g., ACE capabilities, schedule, cost, and benefits) made in previous plans. In the fiscal year 2004 expenditure plan, CBPMO committed to, for example, acquiring infrastructure for ACE releases and to defining and designing an ACE release that was intended to provide additional account management functionality. However, the current plan described neither the status of infrastructure acquisition nor progress toward defining and designing the planned account management functionality. Also, the current plan included a schedule for developing ACE releases, but neither reported progress relative to the schedule presented in the fiscal year 2004 plan nor explained how the individual releases and their respective schedules were affected by the rebaselining that occurred after the fiscal year 2004 plan was submitted.

Some key bases for the commitments made in the fiscal year 2005 expenditure plan have changed, raising questions as to the plan's currency and relevance. Neither the expenditure plan nor the program plan reflected several program developments, including the following:

- A key Release 5 assumption made in the program and expenditure plans regarding development, and thus cost and delivery, of the multimodal manifest functionality is no longer valid.
- Additional releases, and thus cost and effort, are now planned that were not reflected in the program and expenditure plans.
- The current organizational change management approach is not fully reflected in program and expenditure plans, and key change management actions are not to be implemented.
- Significant changes to the respective roles and responsibilities of the ACE development contractor and CBPMO are not reflected in the program and expenditure plans.

Conclusions

DHS and OMB have largely satisfied four of the five conditions associated with the fiscal year 2005 ACE expenditure plan that were legislated by the Congress, and we have satisfied the fifth condition. Further, CBPMO has continued to work toward implementing our prior recommendations aimed at improving management of the ACE program and thus the program's chances of success. Nevertheless, progress has been slow in addressing some of our recommendations, such as the one encouraging proactive

management of the relationships between ACE and other DHS border security programs, like US-VISIT. Given that these programs have made and will continue to make decisions that determine how they will operate, delays in managing their relationships will increase the chances that later system rework will eventually be required to allow the programs to interoperate.

Additionally, while DHS has taken important actions to help address ACE release-by-release cost and schedule overruns that we previously identified, it is unlikely that the effect of these actions will prevent the past pattern of overruns from recurring. This is because DHS has met its recently revised cost and schedule commitments in part by relaxing system quality standards, so that milestones are being passed despite material system defects, and because correcting such defects will ultimately require the program to expend resources, such as people and test environments, at the expense of later system releases (some of which are now under way).

In the near term, cost and schedule overruns on recent releases are being somewhat masked by the use of less stringent quality standards; ultimately, efforts to fix these defects will likely affect the delivery of later releases. Until accountability for ACE is redefined and measured in terms of all types of program commitments—system capabilities, benefits, costs, and schedules—the program will likely experience more cost and schedule overruns.

During the last year, DHS's accountability for ACE has been largely focused on meeting its cost and schedule baselines. This focus is revealed by the absence of information in the latest expenditure plan on progress against all commitments made in prior plans, particularly with regard to measurement and reporting on such things as system capabilities, use, and benefits. It is also shown by the program's insufficient focus on system quality, as demonstrated by its willingness to pass milestones despite material defects, and by the absence of attention to the current defect profile for Release 3 (which is already deployed).

Moreover, the commitments that DHS made in the fiscal year 2005 expenditure plan have been overcome by events, which limits the currency and relevance of this plan and its utility to the Congress as an accountability mechanism. As a result, the prospects of greater accountability in delivering against its capability, benefit, cost, and schedule commitments are limited. Therefore, it is critically important that DHS define for itself and the Congress an accountability framework for

ACE, and that it manage and report in accordance with this framework. If it does not, the effects of the recent rebaselining of the program will be short lived, and the past pattern of ACE costing more and taking longer than planned will continue.

Recommendations for Executive Action

To strengthen accountability for the ACE program and better ensure that future ACE releases deliver promised capabilities and benefits within budget and on time, we recommend that the DHS Secretary, through the Under Secretary for Border and Transportation Security, direct the Commissioner, Customs and Border Protection, to define and implement an ACE accountability framework that ensures

- coverage of all program commitment areas, including key expected or estimated system (1) capabilities, use, and quality; (2) benefits and mission value; (3) costs; and (4) milestones and schedules;
- currency, relevance, and completeness of all such commitments made to the Congress in expenditure plans;
- reliability of data relevant to measuring progress against commitments;
- reporting in future expenditure plans of progress against commitments contained in prior expenditure plans;
- use of criteria for exiting key readiness milestones that adequately consider indicators of system maturity, such as severity of open defects; and
- clear and unambiguous delineation of the respective roles and responsibilities of the government and the prime contractor.

Agency Comments

In written comments on a draft of this report signed by the Acting Director, Departmental GAO/OIG Liaison, DHS agreed with our findings concerning progress in addressing our prior recommendations. In addition, the department agreed with the new recommendations we are making in this report and described actions that it plans to take to enhance accountability for the program. These planned actions are consistent with our recommendations. DHS's comments are reprinted in appendix II.

We are sending copies of this report to the Chairmen and Ranking Minority Members of other Senate and House committees and subcommittees that have authorization and oversight responsibilities for homeland security. We are also sending copies to the Secretary of Homeland Security, the Under Secretary for Border and Transportation Security, the CBP Commissioner, and the Director of OMB. In addition, the report will be available at no charge on the GAO Web site at http://www.gao.gov.

Should you or your offices have any questions on matters discussed in this report, please contact me at (202) 512-3459 or at hiter@gao.gov. Other contacts and key contributors to this report are listed in appendix III.

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Briefing to Subcommittees on Homeland Security, House and Senate Committees on Appropriations

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Information Technology: Customs Automated Commercial Environment Program Progressing, but Need for Management Improvements Continues

Briefing to the Staffs of the
Subcommittees on Homeland Security,
Senate and House Committees on Appropriations

December 20, 2004

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Briefing Overview

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Results

- Legislative Conditions
- Status of Recommendations
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Attachment 1: Scope and Methodology

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Introduction

The Department of Homeland Security's (DHS) Bureau of Customs and Border Protection (CBP)[1] is over 3 years into its second attempt to introduce new trade processing capability, known as the Automated Commercial Environment (ACE). The goals of ACE are to

- facilitate the movement of legitimate trade through more effective trade account management;
- strengthen border security by identifying import/export transactions that have an elevated risk of posing a threat to the United States or of violating a trade law or regulation; and
- provide a single system interface between the trade community[2] and the federal government,[3] known as the International Trade Data System (ITDS), and thereby reduce the data reporting burden placed on the trade community while also providing federal agencies with the data and various capabilities to support their respective international trade and transportation missions.

[1]CBP was formed from the former U.S. Customs Service and other entities with border protection responsibility.
[2]Members of the trade community include importers and exporters, brokers and trade advisors, and carriers.
[3]Includes federal agencies responsible for managing international trade and transportation processes.

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Introduction

The Department of Homeland Security Appropriations Act, 2005,[1] states that DHS may not obligate any funds for ACE until DHS submits for approval to the House and Senate Committees on Appropriations a plan for expenditure that

1. meets the capital planning and investment control review requirements established by the Office of Management and Budget (OMB), including Circular A-11, part 7,[2]
2. complies with DHS's enterprise architecture;
3. complies with the acquisition rules, requirements, guidelines, and systems acquisition management practices of the federal government;
4. is reviewed and approved by the DHS Investment Review Board (IRB),[3] Secretary of Homeland Security, and OMB; and
5. is reviewed by GAO.

[1]Pub. L. 108-334 (Oct. 18, 2004).

[2]OMB Circular A-11 establishes policy for planning, budgeting, acquisition, and management of federal capital assets.

[3]The purpose of the Investment Review Board is to integrate capital planning and investment control, budgeting, acquisition, and management of investments. It is also to ensure that spending on investments directly supports and furthers the mission and that this spending provides optimal benefits and capabilities to stakeholders and customers.

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Introduction

In the Department of Homeland Security Appropriations Act for fiscal year 2005, the Congress appropriated approximately $321.7 million for the ACE program.[1]

DHS submitted its fiscal year 2005 expenditure plan for $321.7 million on November 8, 2004, to its House and Senate Appropriations Subcommittees on Homeland Security.

DHS currently plans to acquire and deploy ACE in 11 increments, referred to as releases. The first three releases are deployed and operational. The fourth release is in the final stages of testing. Other releases are in various stages of definition and development.

[1]Pub. L. 108-334 (Oct. 18, 2004).

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Objectives

Objectives

As agreed, our objectives were to

- determine whether the ACE fiscal year 2005 expenditure plan satisfies the legislative conditions,
- determine the status of our open recommendations on ACE, and
- provide any other observations about the expenditure plan and DHS's management of the ACE program.

We conducted our work at CBP headquarters and contractor facilities in the Washington, D.C., metropolitan area from April 2004 through December 2004, in accordance with generally accepted government auditing standards. Details of our scope and methodology are provided in attachment 1.

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Results in Brief

Objective 1: Satisfaction of legislative conditions

Legislative conditions	Status
1. Meets the capital planning and investment control review requirements established by OMB, including OMB Circular A-11, part 7.	Satisfied[a]
2. Complies with DHS's enterprise architecture.	Partially satisfied[b]
3. Complies with the acquisition rules, requirements, guidelines, and systems acquisition management practices of the federal government.	Partially satisfied
4. Is reviewed and approved by the DHS Investment Review Board, Secretary of Homeland Security, and OMB.	Satisfied
5. Is reviewed by GAO.	Satisfied

Source: GAO.

[a]Satisfied means that the plan, in combination with supporting documentation, either satisfied or provides for satisfying every aspect of the condition that we reviewed.

[b]Partially satisfied means that the plan, in combination with supporting documentation, either satisfied or provides for satisfying many, but not all, key aspects of the condition that we reviewed.

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Results in Brief

Objective 2: Status of actions to implement our open recommendations

GAO recommendations	Status
Develop and implement a rigorous and analytically verifiable cost estimating program.	In progress[a]
Ensure that future expenditure plans are based on cost estimates that are reconciled with independent cost estimates.	Complete[b, c]
Immediately develop and implement a human capital management strategy that provides both near and long-term solutions; develop and implement missing human capital practices.	In progress
Have future ACE expenditure plans specifically address any proposals or plans for extending and using ACE infrastructure to support other homeland security applications.	In progress

[a]In progress means that actions are under way to implement the recommendation.

[b]Complete means that actions have been taken to fully implement the recommendation.

[c]With respect to the fiscal year 2005 expenditure plan.

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Objective 2: Status of actions to implement our open recommendations

GAO recommendations	Status
Establish an independent verification and validation (IV&V) function to assist CBP in overseeing contractor efforts, such as testing, and ensure the independence of the IV&V agent.[1]	Complete
Reconsider the ACE acquisition schedule and cost estimates in light of early release problems and the need to avoid past levels of concurrency among activities within and between releases.	Complete
Define metrics, and collect and use associated measurements, for determining whether prior and future program management improvements are successful.	In progress
Report quarterly to the House and Senate Appropriations Committees on efforts to address open GAO recommendations.	In progress

Source: GAO.

[1]The purpose of IV&V is to increase the chances of program success by having independent reviews of program management processes and products throughout the acquisition and deployment phase.

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Results in Brief

Objective 3: Observations

- Initial ACE releases have largely met a key service level agreement.
- Progress toward establishing ACE user accounts has not met expectations.
- Release 3 testing and pilot activities were delayed and have produced system defect trends that raise questions about decisions to pass key milestones and about the state of system maturity.
  - *Release 3 integration testing started later than planned, took longer than expected, and was declared successful despite open defects that prevented system from performing as intended.*
  - *Release 3 acceptance testing started later than planned, concluded later than planned, and was declared successful despite material inventory of open defects.*
  - *Release 3 pilot activities, including user acceptance testing, were declared successful despite severe defects remaining open.*
  - *Current state of Release 3 maturity is unclear because defect data since user acceptance testing are not reliable.*

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Results in Brief

Objective 3: Observations

- Release 4 test phases were delayed and overlapped, and revealed a higher than expected volume and significance of defects, raising questions about decisions to pass key milestones and about the state of system maturity.
  - *Release 4 testing revealed a considerably higher than expected number of material defects.*
  - *Release 4 integration and acceptance testing schedule changes resulted in tests being conducted concurrently.*
  - *Release 4 defect profile shows improvements in resolving defects, but critical and severe defects remain in operational system.*
- Performance against the revised cost and schedule estimates for Releases 3 and 4 has been mixed.
- The fiscal year 2005 expenditure plan does not adequately describe progress against commitments (e.g., ACE capabilities, schedule, cost, and benefits) made in previous plans.

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Results in Brief

Objective 3: Observations

- Some key bases for the commitments made in the fiscal year 2005 expenditure plan have changed, raising questions as to the plan's currency and relevance.
  - *A key Release 5 assumption underpinning program and expenditure plans is no longer valid.*
  - *Additional release(s) are now planned that were not reflected in the program and expenditure plans.*
  - *The current organizational change management approach is not fully reflected in program and expenditure plans, and key change management actions are not to be implemented.*
  - *Recent changes to the respective roles and responsibilities of the ACE development contractor and CBP's Modernization Office are not reflected in the program and expenditure plans.*

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Results in Brief

We are making recommendations to the DHS Secretary to strengthen accountability for the ACE program and better ensure that future ACE releases deliver expected capabilities and benefits within budget and on time.

In their oral comments on a draft of this briefing, DHS and CBP officials, including the DHS Chief Information Officer (CIO), the Border and Transportation Security CIO, and the CBP Acting CIO, generally agreed with our findings, conclusions, and recommendations and stated that it was fair and balanced. They also provided clarifying information that we incorporated as appropriate in this briefing.

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Background

ACE-Related Business Functions

ACE is to support eight major CBP business areas.

1. **Release Processing:** Processing of cargo for import or export; tracking of conveyances, cargo and crew; and processing of in-bond, warehouse, Foreign Trade Zone, and special import and export entries.
2. **Entry Processing:** Liquidation and closeout of entries and entry summaries related to imports, and processing of protests and decisions.
3. **Finance:** Recording of revenue, performance of fund accounting, and maintenance of the general ledger.
4. **Account Relationships:** Maintenance of trade accounts, their bonds and CBP-issued licenses, and their activity.
5. **Legal and Policy:** Management of import and export legal, regulatory, policies and procedures, and rulings issues.
6. **Enforcement:** Enforcement of laws, regulations, policies and procedures, and rulings governing the import and export of cargo, conveyances, and crew.

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Background
ACE-Related Business Functions

7. **Business Intelligence:** Gathering and reporting data, such as references for import and export transactions, for use in making admissibility and release decisions.
8. **Risk:** Decisionmaking about admissibility and compliance of cargo using risk-based mitigation, selectivity, and targeting.

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Background

Description of ACE Technical Architecture

The ACE technical architecture is to consist of layers or tiers of computer technology:

- The **Client Tier** includes user workstations and external system interfaces.
- The **Presentation Tier** provides the mechanisms for the user workstations and external systems to access ACE.
- The **Integration Services Tier** provides the middleware for integrating and routing information between ACE software applications and legacy systems.
- The **Applications Tier** includes software applications comprising commercial products (e.g., SAP[1]) and custom-developed software that provide the functionality supporting CBP business processes.
- The **Data Tier** provides the data management and warehousing services for ACE, including database backup, restore, recovery, and space management.

Security and data privacy are to be embedded in all five layers.

[1]SAP is a commercial enterprise resource planning software product that has multiple modules, each performing separate but integrated business functions. ACE will use SAP as the primary commercial, off-the-shelf product supporting its business processes and functions. CBP's Modernization Office is also using SAP as part of a joint project with its Office of Finance to support financial management, procurement, property management, cost accounting, and general ledger processes.

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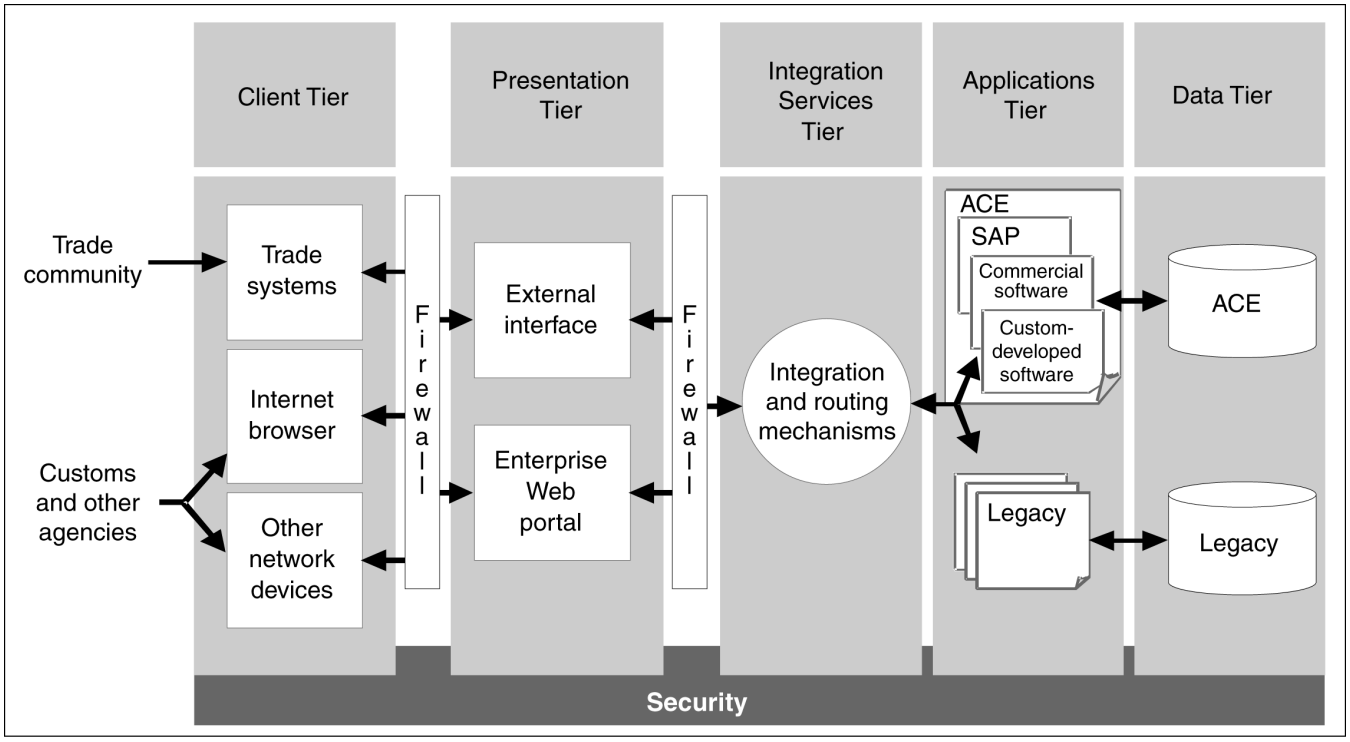
Background
ACE Technical Architecture

Simplified View of ACE Technical Architecture



Source: GAO based on CBP data.

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Background
Acquisition Strategy

CBP's Modernization Office (CBPMO) is responsible for acquiring and implementing ACE through a contract awarded on April 27, 2001, to IBM Global Services. IBM and its subcontractors are collectively called the e-Customs Partnership (eCP).

CBPMO's initial strategy provided for acquiring ACE in four increments deployed over 4 years. In September 2002, the modernization office modified this strategy to acquire and deploy the first three increments in six releases; all four increments were to be deployed over 4 years. In October 2003, CBPMO changed its plans, deciding to acquire and deploy ACE in 10 releases over 6 years.

Subsequently, between January and July 2004, CBPMO and eCP conducted a planning project called the Global Business Blueprint. It was intended to define how ACE will use SAP and other technologies to perform CBP business processes in Releases 5, 6, and 7; to define the functional scope of these releases; and to develop updated program schedule and cost estimates. Following the blueprint, CBP changed its acquisition strategy again. It currently plans to acquire and deploy ACE in 11 releases over 9 years.

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Background
Summary of ACE Releases

The functionality associated with, status of, and plans for the 11 ACE releases are as follows.

Release 1 (ACE Foundation): Provide IT infrastructure—computer hardware and system software—to support subsequent system releases. This release was deployed in October 2003 and is operating.

Release 2 (Account Creation): Give initial group of CBP national account managers[1] and importers access to account information, such as trade activity. This release was deployed in October 2003 and is operating.

Release 3 (Periodic Payment): Provide additional account managers and importers, as well as brokers and carriers,[2] access to account information; provide initial financial transaction processing and CBP revenue collection capability, allowing importers and their brokers to make monthly payments of duties and fees.

[1]CBP national account managers work with the largest importers.

[2]Brokers obtain licenses from CBP to conduct business on behalf of the importers by filling out paperwork and obtaining a bond; carriers are individuals or organizations engaged in transporting goods for hire.

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Background
Summary of ACE Releases

This release was deployed in July 2004 and is operating. As a result, CBP reports that importers can now obtain a national view of their transactions on a monthly statement and can pay duties and fees on a monthly basis for the first time since CBP and its predecessor organizations were established in 1789. Additionally, according to CBP, Release 3 provides a national view of trade activity, thus greatly enhancing its ability to accomplish its mission of providing border security while facilitating legitimate trade and travel. CBP also reports that as of December 6, 2004, it had processed 27,777 entries and collected over $126.5 million using Release 3.

Release 4 (e-Manifest: Trucks): Provide truck manifest[1] processing and interfacing to legacy enforcement systems and databases. This release is under development and scheduled for deployment beginning in February 2005.

Screening S1 (Screening Foundation): Establish the foundation for screening and targeting cargo and conveyances by centralizing criteria and results into a single standard database; allow users to define and maintain data sources and business rules. This release is scheduled for deployment beginning in September 2005.

[1]Manifests are lists of passengers or invoices of cargo for a vehicle, such as a truck, ship, or plane.

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Background
Summary of ACE Releases

Screening S2 (Targeting Foundation): Establish the foundation for advanced targeting capabilities by enabling CBP's National Targeting Center to search multiple databases for relevant facts and actionable intelligence. This release is scheduled for deployment beginning in February 2006.

Release 5 (Account Revenue and Secure Trade Data): Leverage SAP technologies to enhance and expand accounts management, financial management, and postrelease functionality, as well as provide the initial multimodal manifest[1] capability. This release is scheduled for deployment beginning in November 2006.

Screening S3 (Advanced Targeting): Provide enhanced screening for reconciliation, intermodal manifest, Food and Drug Administration data, and in-bond, warehouse, and Foreign Trade Zone authorized movements; integrate additional data sources into targeting capability; provide additional analytical tools for screening and targeting data. This release is scheduled for deployment beginning in February 2007.

[1]The multimodal manifest involves the processing and tracking of cargo as it transfers between different modes of transportation, such as cargo that arrives by ship, is transferred to a truck, and then is loaded onto an airplane.

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Background
Summary of ACE Releases

Screening S4 (Full Screening and Targeting): Provide screening and targeting functionality supporting all modes of transportation and all transactions within the cargo management lifecycle, including enhanced screening and targeting capability with additional technologies. This release is scheduled for deployment beginning in February 2009.

Release 6 (e-Manifest: All Modes and Cargo Security): Provide enhanced postrelease functionality by adding full entry processing; enable full tracking of cargo, conveyance, and equipment; enhance the multimodal manifest to include shipments transferring between transportation modes. This release is scheduled for deployment beginning in February 2009.

Release 7 (Exports and Cargo Control): Implement the remaining ACE functionality, including Foreign Trade Zone warehouse; export, seized asset and case tracking system; import activity summary statement; and mail, pipeline, hand carry, drawback, protest, and document management. This release is scheduled for deployment beginning in May 2010.

The graphic on the following slide illustrates the planned schedule for ACE.

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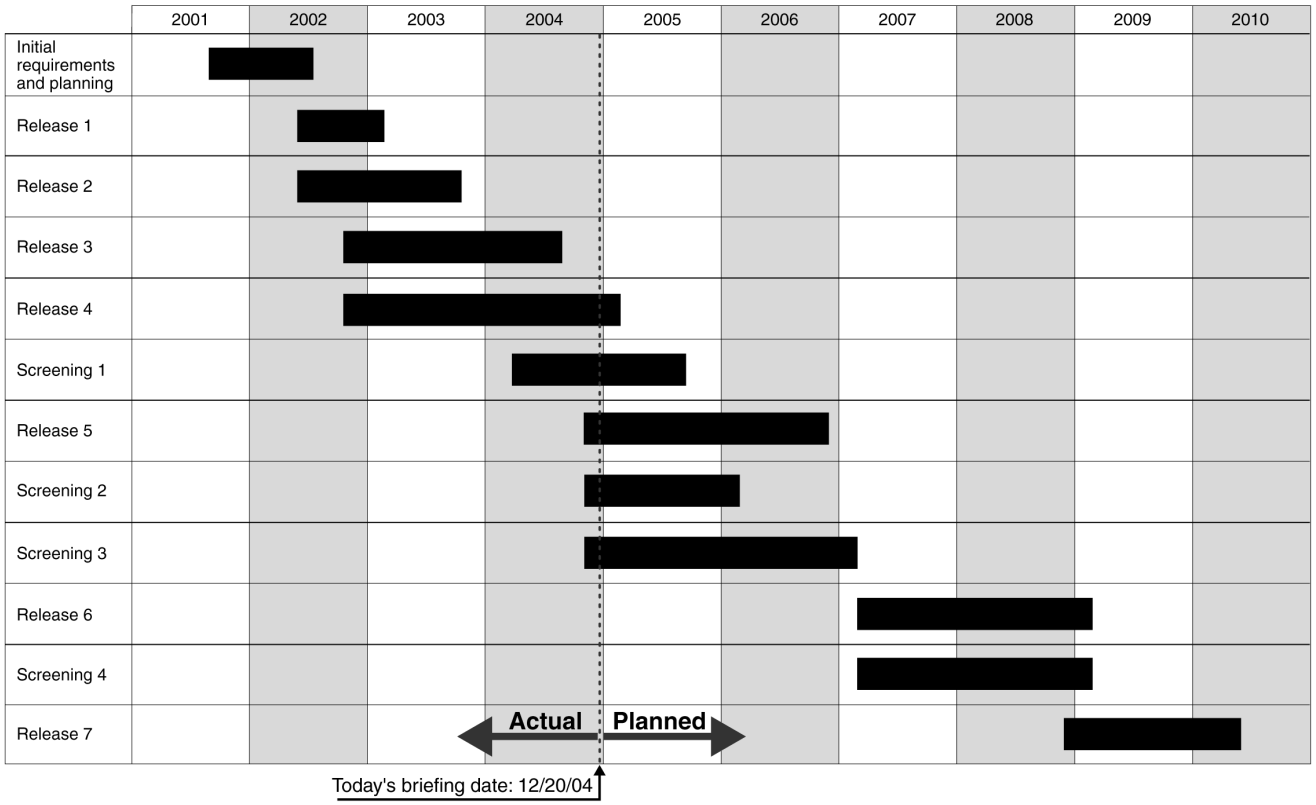
Background
Current ACE Schedule



Source: GAO analysis of CBP data.

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Background

ACE Satisfaction of Modernization Act Requirements

ACE is intended to support CBP satisfaction of the provisions of Title VI of the North American Free Trade Agreement, commonly known as the Modernization Act. Subtitle B of the Modernization Act contains the various automation provisions that were intended to enable the government to modernize international trade processes and permit CBP to adopt an informed compliance approach with industry. The following table illustrates how each ACE release is to fulfill the requirements of Subtitle B.

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Background

ACE Satisfaction of Modernization Act Requirements

Modernization Act requirements	ACE releases									
	Release 1 and 2	Release 3	Release 4	Screening S1	Screening S2	Release 5	Screening S3	Screening S4	Release 6	Release 7
Electronic entry of merchandise									90%	100%
Electronic entry summary of required information						75%				100%
Electronic transmission of invoice information						75%				100%
Electronic transmission of manifest information			25%			75%			90%	100%
Electronic payment of duties, fees, and taxes		10%				75%				100%
Electronic status of liquidation and reliquidation						90%				100%
Electronic selection of high risk cargo for examination			10%	75%			90%	100%		
Electronic selection of high risk entry summaries for examination					90%			100%		
Electronic filing and status of protests										100%
Electronic filing (including remote filing under section 414) of entry information with the Customs Service									90%	100%
Electronic filing of import activity summaries										100%
Electronic filing of reconciliations				10%		100%				
Electronic filing of bonds						90%				100%
Electronic penalty process										100%
Electronic filing of drawback claims, records, or entries										100%
Account management	10%	50%				75%			90%	100%
Periodic monthly statement		100%								
Inbond and cargo tracking									90%	100%

Percentage of Modernization Act requirements satisfied: 10% 25% 50% 75% 90% 100%

Source: CBP.

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Background
Contract Tasks

Thus far, CBPMO has executed 21 contract task orders. The following table describes and provides the status of the executed eCP task orders.

No.	Name	Start	Status	Description
001	Program management	August 2001	Completed July 2003	Initial program and project management; continued by task 009.
002	Enterprise architecture and engineering	August 2001	Completed June 2003	Initial enterprise architecture and system engineering; continued by task 010.
003	Requirements and planning	August 2001	Completed July 2002	Initial requirements development and program planning effort; continued by tasks for specific increments/releases.
004	Releases 1 and 2	February 2002	Completed October 2003	Design, development, testing, and deployment of Releases 1 and 2 (initially intended to build Increment 1, which was subsequently divided into four releases)
005	Requirements definition	February 2002	Completed March 2004	Development of Release 5 project plan, documentation of ACE business processes, and development of an ACE implementation strategy.

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Background
Contract Tasks

Status and description of eCP task orders

No.	Name	Start	Status	Description
006	Enterprise process improvement	February 2002	Completed December 2003	Enterprise process improvement integration.
007	International Trade Data System	January 2002	December 2004 planned completion	Assistance for participating government agencies to define requirements for an integrated ACE/ITDS system.
008	Releases 3 and 4	August 2002	May 2005 planned completion	Design, development, testing, and deployment of Releases 3 and 4.
009	Foundation program management	February 2003	Completed October 2003	Follow-on to task 001 to continue program and project management activities.
010	Foundation architecture and engineering	February 2003	Completed December 2003	Follow-on to task 002 to continue enterprise architecture and system engineering activities; continued by task 017.

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Background
Contract Tasks

Status and description of eCP task orders

No.	Name	Start	Status	Description
011	Infrastructure and facilities	August 2002	Completed March 2003	Acquisition and setup of the necessary infrastructure and facilities for the contractor to design, develop, and test releases.
012	Operations and maintenance	April 2003	Completed September 2004	Establishment of the infrastructure to operate and maintain releases.
013	Legacy scripts modernization	June 2003	Completed November 2003	Conversion of scripts for interfacing desktop applications (MS Word and Excel) and mainframe computer applications.
014	Knowledge-based risk management	September 2003	Completed March 2004	Development, demonstration, and delivery of a prototype to provide CBP insight into whether knowledge-based risk management should be used in ACE.
015	Technology prototypes	October 2003	July 2005 planned completion	Development and demonstration of technology prototypes to provide CBP insight into whether the technologies should be used in ACE.

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Background
Contract Tasks

Status and description of eCP task orders

No.	Name	Start	Status	Description
016	Foundation program management: workforce transformation	February 2004	December 2004 planned completion	Program management and support to organizational change management through activities such as impact assessments, end user training, communication, and outreach.
017	Architecture and engineering	January 2004	December 2004 planned completion	Coordination of program activities and alignment of enterprise objectives and technical plans through architecture and engineering activities.
018	Enterprise life cycle methodology	January 2004	January 2005 planned completion	Application of the CBP Enterprise Life Cycle Methodology to integrate multiple projects and other ongoing Customs operations into CBPMO.
019	Operations and maintenance	March 2004	March 2006 planned completion	Follow-on to task 012 includes establishment, integration, configuration, and maintenance of the infrastructure to support Releases 2, 3, and 4.

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Background
Contract Tasks

Status and description of eCP task orders

No.	Name	Start	Status	Description
020	Screening 1 Implementation	March 2004	September 2005 planned completion	Design, develop, test, and deploy the Screening Foundation (S1) release.
021	Screening 2 and 3; Release 5	May 2004	December 2004 planned completion	Definition of requirements for the Targeting Foundation (S2) release, and initial project authorization and definition for Release 5.

Source: GAO analysis of CBP data.

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Background

Chronology of Six ACE Expenditure Plans

Since March 2001, six ACE expenditure plans have been submitted.[1] Collectively, the six plans have identified a total of $1,401.5 million in funding.

- On March 26, 2001, CBP submitted to its appropriations committees the *first expenditure plan* seeking $45 million for the modernization contract to sustain CBPMO operations, including contractor support. The appropriations committees subsequently approved the use of $45 million, bringing the total ACE funding to $50 million.
- On February 1, 2002, the *second expenditure plan* sought $206.9 million to sustain CBPMO operations; define, design, develop, and deploy Increment 1, Release 1 (now Releases 1 and 2); and identify requirements for Increment 2 (now part of Releases 5, 6, and 7 and Screenings 1 and 2). The appropriations committees subsequently approved the use of $188.6 million, bringing total ACE funding to $238.6 million.

[1]In March 2001, appropriations committees approved the use of $5 million in stopgap funding to fund program management office operations.

Background

Chronology of Six ACE Expenditure Plans

- On May 24, 2002, the *third expenditure plan* sought $190.2 million to define, design, develop, and implement Increment 1, Release 2 (now Releases 3 and 4). The appropriations committees subsequently approved the use of $190.2 million, bringing the total ACE funding to $428.8 million.
- On November 22, 2002, the *fourth expenditure plan* sought $314 million to operate and maintain Increment 1 (now Releases 1, 2, 3, and 4); to design and develop Increment 2, Release 1 (now part of Releases 5, 6, and 7 and Screening 1); and to define requirements and plan Increment 3 (now part of Releases 5, 6, and 7 and Screenings 2, 3, and 4). The appropriations committees subsequently approved the use of $314 million, bringing total ACE funding to $742.8 million.

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Background

Chronology of Six ACE Expenditure Plans

- On January 21, 2004, the *fifth expenditure plan* sought $318.7 million to implement ACE infrastructure; to support, operate, and maintain ACE; and to define and design Release 6 (now part of Releases 5, 6, and 7) and Selectivity 2 (now Screenings 2 and 3). The appropriations committees subsequently approved the use of $316.8 million, bringing total ACE funding to $1,059.6 million.
- On November 8, 2004, CBP submitted its *sixth expenditure plan*, seeking $321.7 million for detailed design and development of Release 5 and Screening 2, definition of Screening 3, Foundation Program Management, Foundation Architecture and Engineering, and ACE Operations and Maintenance.

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Background
Summary of Expenditure Plan Funding

Summary of the ACE fiscal year 2005 expenditure plan

Plan activity	Funding[a]
Manifest/Entry & Revenue, Design and Development	$40.0
e-Manifest: Trucks (Release 4) Deployment	$10.3
Screening and Targeting, Design and Development	$27.0
Implementation Infrastructure and Support	$55.4
Foundation Program Management	$40.5
Foundation Architecture and Engineering	$20.5
Workforce Transformation	$5.5
Operations and Maintenance	$45.5
CBPMO Costs	$48.6
ITDS	$16.2
Management Reserve	$12.2
Total	**$321.7**

Source: CBP.

[a]Millions of dollars.

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Objective 1 Results
Legislative Conditions

DHS and OMB satisfied or partially satisfied each of its legislative conditions; GAO satisfied its legislative condition.

Condition 1. The plan, in conjunction with related program documentation and program officials' statements, satisfied the capital planning and investment control review requirements established by OMB, including Circular A-11, part 7, which establishes policy for planning, budgeting, acquisition, and management of federal capital assets.

The table that follows provides examples of the results of our analysis.

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Objective 1 Results
Legislative Conditions

Examples of A-11 conditions	Results of our analysis
Provide justification and describe acquisition strategy.	The plan provides a high-level justification for ACE. Supporting documentation describes the acquisition strategy for ACE releases, including Release 5 and Screening 2 activities that are identified in the fiscal year 2005 expenditure plan.
Summarize life cycle costs and cost/benefit analysis, including the return on investment.	CBPMO issued a cost/benefit analysis for ACE on September 16, 2004. This analysis includes a life cycle cost estimate of $3.1 billion and a benefit cost ratio of 2.7.
Provide performance goals and measures.	The plan and supporting documentation describe some goals and measures. For example, CBPMO has established goals for time and labor savings expected to result from using the early ACE releases, and it has begun or plans to measure results relative to these goals and measures. It has defined measures and is collecting data for other goals, such as measures for determining its progress toward defining the complete set of ACE functional requirements.

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Objective 1 Results
Legislative Conditions

Examples of A-11 conditions	Results of our analysis
Address security and privacy.	The security of Release 3 was certified on May 28, 2004, and accredited on June 9, 2004. Release 4 was certified on November 23, 2004, and accredited on December 2, 2004. CBP plans to certify and accredit future releases. CBPMO reports that it is currently preparing a privacy impact assessment for ACE.
Address Section 508 compliance.[a]	CBPMO deployed Release 3 and plans to deploy Release 4 without Section 508 compliance because the requirement was overlooked and not built into either release. CBPMO has finalized and begun implementing a strategy that is expected to result in full Section 508 compliance. For example, CBPMO has defined a set of Section 508 requirements to be used in developing later ACE releases.

Source: GAO.

[a]Section 508 of the Rehabilitation Act (29 U.S.C. 794d), as amended by the Workforce Investment Act of 1998 (Pub. L. 105-220), August 7, 1998, requires federal agencies to develop, procure, maintain, and use electronic information technology in a way that ensures that the technology is accessible to people with disabilities.

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Objective 1 Results
Legislative Conditions

Condition 2. The plan, including related program documentation and program officials' statements, partially satisfied this condition by providing for future compliance with DHS's enterprise architecture (EA).

DHS released version 1.0 of the architecture in September 2003.[1] We reviewed the initial version of the architecture and found that it was missing, either partially or completely, all the key elements expected in a well-defined architecture, such as a description of business processes, information flows among these processes, and security rules associated with these information flows.[2] Since we reviewed version 1.0, DHS has drafted version 2.0 of its EA. We have not reviewed this draft.

According to CBPMO officials, they have been working with the DHS EA program office in developing version 2.0 to ensure that ACE is aligned with DHS's evolving EA. They also said that CBP participates in both the DHS EA Center of Excellence and the DHS Enterprise Architecture Board.[3]

[1]Department of Homeland Security Enterprise Architecture Compendium Version 1.0 and Transitional Strategy.

[2]GAO, *Homeland Security: Efforts Under Way to Develop Enterprise Architecture, but Much Work Remains,* GAO-04-777 (Washington, D.C.: Aug. 6, 2004).

[3]The Center of Excellence supports the Enterprise Architecture Board in reviewing component documentation. The purpose of the Board is to ensure that investments are aligned with the DHS EA.

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Objective 1 Results
Legislative Conditions

In August 2004, the Center of Excellence approved CBPMO's analysis intended to demonstrate ACE's architectural alignment, and the Enterprise Architecture Board subsequently concurred with the center's approval. However, DHS has not yet provided us with sufficient documentation to allow us to understand DHS's architecture compliance methodology and criteria (e.g., definition of alignment and compliance) or with verifiable analysis justifying the approval.

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Objective 1 Results
Legislative Conditions

Condition 3. The plan, in conjunction with related program documentation, partially satisfied the condition of compliance with the acquisition rules, requirements, guidelines, and systems acquisition management practices of the federal government.

The Software Acquisition Capability Maturity Model (SA-CMM®), developed by Carnegie Mellon University's Software Engineering Institute (SEI), is consistent with the acquisition guidelines and systems acquisition management practices of the federal government, and it provides a management framework that defines processes for acquisition planning, solicitation, requirements development and management, project management, contract tracking and oversight, and evaluation.

In November 2003, SEI assessed ACE acquisition management against the SA-CMM and assigned a level 2 rating, indicating that CBPMO has instituted basic acquisition management processes and controls in the following areas: acquisition planning, solicitation, requirements development and management, project management, contract tracking and oversight, and evaluation.

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Objective 1 Results
Legislative Conditions

In June 2003, the Department of the Treasury's Office of Inspector General (OIG) issued a report on the ACE program's contract, concluding that the former Customs Service, now CBP, did not fully comply with Federal Acquisition Regulation requirements in the solicitation and award of its contract because the ACE contract is a multiyear contract and not an indefinite-delivery/indefinite-quantity (IDIQ) contract. Further, the Treasury OIG found that the ACE contract type, which it determined to be a multiyear contract, is not compatible with the program's stated needs for a contract that can be extended to a total of 15 years, because multiyear contracts are limited to 5 years. Additionally, the Treasury OIG found that Customs combined multiyear contracting with IDIQ contracting practices. For example, it plans to use contract options to extend the initial 5-year performance period.

CBP disagrees with the Treasury OIG conclusion.

To resolve the disagreement, DHS asked GAO to render a formal decision. We are currently reviewing the matter.

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Objective 1 Results
Legislative Conditions

Condition 4. DHS and OMB satisfied the condition that the plan be reviewed and approved by the DHS IRB, the Secretary of Homeland Security, and OMB.

On August 18, 2004, the DHS IRB reviewed the ACE program, including ACE fiscal year 2005 cost, schedule, and performance plans. The DHS Deputy Secretary, who chairs the IRB, delegated further review of the fiscal year 2005 efforts, including review and approval of the fiscal year 2005 ACE expenditure plan, to the Under Secretary for Management, with support from the Chief Financial Officer, Chief Information Officer, and Chief Procurement Officer, all of whom are IRB members. The Under Secretary for Management approved the expenditure plan on behalf of the Secretary of Homeland Security on November 8, 2004.

OMB approved the plan on October 15, 2004.

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Objective 1 Results
Legislative Conditions

Condition 5. GAO satisfied the condition that it review the plan.

Our review was completed on December 17, 2004.

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Objective 2 Results
Open Recommendations

Open recommendation 1: Develop and implement a rigorous and analytically verifiable cost estimating program that embodies the tenets of effective estimating as defined in SEI's institutional and project-specific estimating models.[1]

Status: In progress

CBPMO has taken several steps to strengthen its cost estimating program. First, the program office has defined and documented processes for estimating expenditure plan costs (including management reserve costs). Second, it hired a contractor to develop cost estimates, including contract task orders, that are independent of eCP's estimates. Third, it tasked a support contractor with evaluating the independent and eCP estimates against SEI criteria. According to the summary-level results of this evaluation, the independent estimates either satisfied or partially satisfied the SEI criteria, and eCP's estimates satisfied or partially satisfied all but two of the seven SEI criteria (these were the criteria for calibration of estimates using actual experience and for adequately reflecting program risks in estimates). CBPMO officials have not yet provided us with the detailed results of this analysis because they have not yet been approved.

[1]For these models, see SEI's *Checklists and Criteria for Evaluating the Cost and Schedule Estimating Capabilities of Software Organizations* and *A Manager's Checklist for Validating Software Cost and Schedule Estimates*.

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Objective 2 Results
Open Recommendations

Open recommendation 2: Ensure that future expenditure plans are based on cost estimates that are reconciled with independent cost estimates.

Status: Complete[1]

In August 2004, CBP's support contractor completed an analysis comparing the cost estimates in the fiscal year 2005 expenditure plan, which are based on the eCP's cost estimates, with the estimate prepared by CBPMO's independent cost estimating contractor. This analysis, which was completed 3 months before the fiscal year 2005 expenditure plan was submitted to the Appropriations Committees, states that the two estimates are consistent.

[1]With respect to the fiscal year 2005 expenditure plan.

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Objective 2 Results
Open Recommendations

Open recommendation 3: Immediately develop and implement a human capital management strategy that provides both near- and long-term solutions to program office human capital capacity limitations, and report quarterly to the appropriations committees on the progress of efforts to do so.

Status: In progress

According to the expenditure plan, CBPMO has since developed a modernization staffing plan that identifies the positions and staff it needs to effectively manage ACE. However, CBPMO did not provide this plan to us because it was not yet approved. Moreover, program officials told us that the staffing plan is no longer operative because it was developed before December 2004, when a modernization office reorganization was implemented. As part of this reorganization, CBP transferred government and contractor personnel who have responsibility for the Automated Commercial System,[1] the Automated Targeting System,[2] and ACE training from non-CBPMO organizational units. This change is expected to eliminate redundant ACE-related program management efforts.

[1]The Automated Commercial System is CBP's system for tracking, controlling, and processing imports to the United States.
[2]The Automated Targeting System is CBP's system for identifying import shipments that warrant further attention.

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Objective 2 Results
Open Recommendations

Following our recommendation, CBPMO provided reports dated March 31, 2004, and June 30, 2004, to the appropriations committees on its human capital activities, including development of the previously mentioned staffing plan and related analysis to fully define CBPMO positions. Additionally, it has reported on efforts to ensure that all modernization office staff members complete a program management training program.

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Objective 2 Results
Open Recommendations

Open Recommendation 4: Have future ACE expenditure plans specifically address any proposals or plans, whether tentative or approved, for extending and using ACE infrastructure to support other homeland security applications, including any impact on ACE of such proposals and plans.

Status: In progress

The ACE Program Plan states that ACE provides functions that are directly related to the "passenger business process" underlying the U.S. Visitor and Immigrant Status Indicator Technology (US-VISIT) program,[1] and integration of certain ACE and US-VISIT components is anticipated. In recognition of this relationship, the expenditure plan states that CBPMO and US-VISIT are working together to identify lessons learned, best practices, and opportunities for collaboration.

[1]US-VISIT is a governmentwide program to collect, maintain, and share information on foreign nationals for enhancing national security and facilitating legitimate trade and travel, while adhering to U.S. privacy laws and policies.

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Objective 2 Results
Open Recommendations

Specifically:

- In February 2004, ACE and US-VISIT managers met to identify potential areas for collaboration between the two programs and to clarify how the programs can best support the DHS mission and provide officers with the information and tools they need. During the meeting, US-VISIT and ACE managers recognized that the system infrastructure built to support the two programs is likely to become the infrastructure for future border security processes and system applications. Further, they identified four areas of collaboration: business cases; program management; inventory; and people, processes, and technology. These areas were later refined to be as follows:
- Program Management coordination, which includes such activities as creating a high-level integrated master schedule for both programs and sharing acquisition strategies, plans, and practices;
- Business Case coordination, including such business case activities as OMB budget submissions and acquisition management baselines;

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Objective 2 Results
Open Recommendations

- Inventory, which includes identifying connections between legacy systems and establishing a technical requirements and architecture team to review, among other things, system interfaces, data formats, and system architectures; and
- People, Processes, and Technology, which includes establishing teams to review deployment schedules and establishing a team and process to review and normalize business requirements.

According to CBPMO, scheduling and staffing constraints prevented any collaboration activities from taking place between February and July 2004. In August 2004, the US-VISIT and ACE programs tasked their respective contractors to form collaboration teams to address the four areas identified at the February meeting. Nine teams were formed:

DHS investment management	Business
Organizational change management	Facilities
Information and data	Technology
Privacy and security	Deployment, operations, and maintenance
Program management	

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Objective 2 Results
Open Recommendations

In September 2004, the teams met to develop team charters, identify specific collaboration opportunities, and develop timelines and next steps. In October 2004, CBPMO and US-VISIT program officials were briefed on the progress and activities of the collaboration teams.

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Objective 2 Results
Open Recommendations

Open recommendation 5: Establish an IV&V function to assist CBP in overseeing contractor efforts, such as testing, and ensure the independence of the IV&V agent.

Status: Complete

According to ACE officials, they have selected an IV&V contractor that has had no prior involvement in the modernization program to ensure independence. These officials stated that the IV&V contractor will be responsible for reviewing ACE products and management processes, and will report directly to the CBP CIO. Award of this contract is to occur on December 30, 2004.

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Objective 2 Results
Open Recommendations

Open recommendation 6: Define metrics, and collect and use associated measurements, for determining whether prior and future program management improvements are successful.

Status: In progress

CBPMO has implemented a metrics program that generally focuses on measuring eCP's performance through the use of earned value management (EVM), deliverable timeliness and quality metrics, and risk and issue disposition reporting. Additionally, CBPMO is planning to broaden its program to encompass metrics and measures for determining progress toward achieving desired business results and acquisition process maturity. The plan for expanding the metrics program is scheduled for approval in early 2005.

One part of CBPMO's metrics program that it has implemented relates to EVM for its contract with eCP. EVM is a widely accepted best practice for measuring contractor progress toward meeting deliverables by comparing the value of work accomplished during a given period with that of the work expected in that period. Differences from expectations are measured in the form of both cost and schedule variances.

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Objective 2 Results
Open Recommendations

- Cost variances compare the earned value of the completed work with the actual cost of the work performed. For example, if a contractor completed $5 million worth of work and the work actually cost $6.7 million, there would be a –$1.7 million cost variance. Positive cost variances indicate that activities are costing less, while negative variances indicate activities are costing more.
- Schedule variances, like cost variances, are measured in dollars, but they compare the earned value of the work completed to the value of work that was expected to be completed. For example, if a contractor completed $5 million worth of work at the end of the month, but was budgeted to complete $10 million worth of work, there would be a –$5 million schedule variance. Positive schedule variances show that activities are being completed sooner than planned. Negative variances show activities are taking longer than planned.

In accordance with EVM principles, eCP reports on its financial performance monthly. These reports provide detailed information on cost and schedule performance on work segments in each task order. Cost and schedule variances that exceed a certain threshold are further examined to determine the root cause of the variance, the impact on the program, and mitigation strategies.

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Objective 2 Results
Open Recommendations

Open recommendation 7: Reconsider the ACE acquisition schedule and cost estimates in light of early release problems, including these early releases' cascading effects on future releases and their relatively small size compared to later releases, and in light of the need to avoid the past levels of concurrency among activities within and between releases**.**

Status: Complete

As we previously reported, the cost estimate for Releases 3 and 4 had grown to $185.7 million, which was about $36.2 million over the contract baseline, and the chances of further overruns were likely.[1] Subsequently, the Release 3 and 4 cost overrun grew to an estimated $46 million, resulting in CBPMO and eCP establishing a new cost baseline for Releases 3 and 4 of $196 million. eCP began reporting performance against this new baseline in April 2004. Further, in July 2004, CBPMO and eCP changed the associated contract task order baseline completion date from September 15, 2004, to May 30, 2005, revised the associated interim task order milestones, and began reporting schedule performance relative to the new baselines.

[1]GAO, *Information Technology: Early Releases of Customs Trade System Operating, but Pattern of Cost and Schedule Problems Needs to Be Addressed*, GAO-04-719 (Washington, D.C.: May 14, 2004).

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Objective 2 Results
Open Recommendations

In July 2004, eCP also rebaselined the ACE program, producing a new version of the ACE Program Plan. The new baseline extends delivery of the last ACE release from fiscal year 2007 to fiscal year 2010 and adds a new screening and targeting release. The new program plan also provides a new ACE life-cycle cost estimate of $3.1 billion,[1] which is a $1 billion increase over the previous life-cycle cost estimate. According to the expenditure plan, the new schedule reflects less concurrency between releases. The following figure compares previous and current schedules for ACE releases and shows a reduction in the level of concurrency between releases.

[1]CBP's ACE life-cycle cost estimate adjusted for risk is about $3.3 billion.

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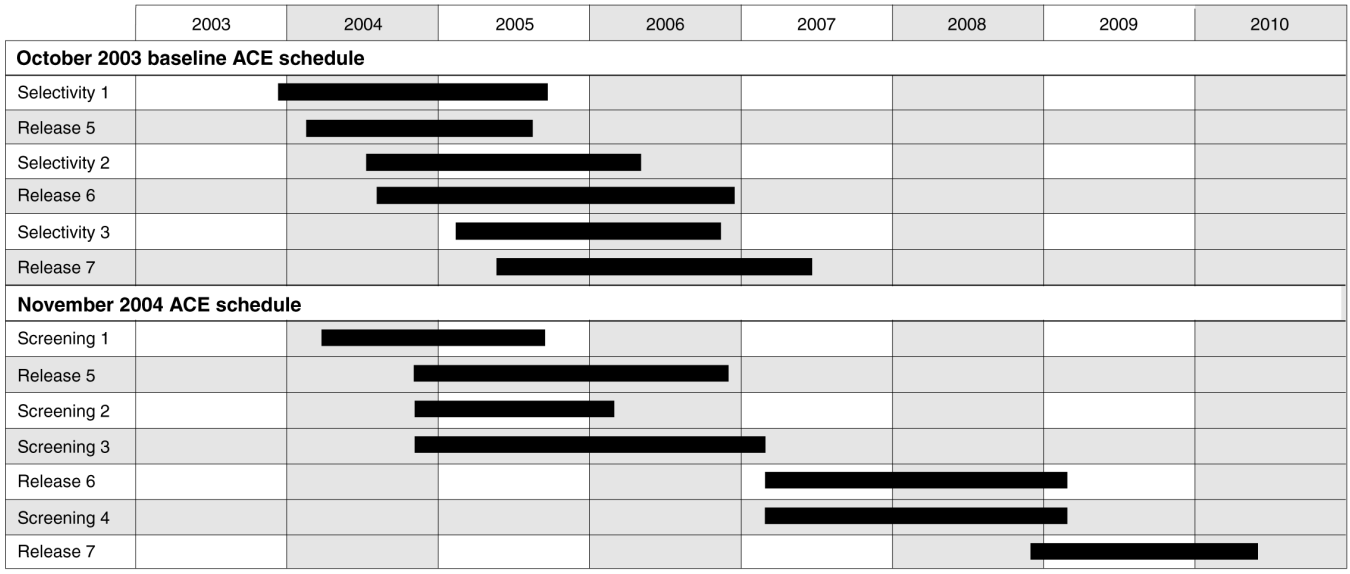
Objective 2 Results
Open Recommendations

ACE Schedule as of October 2003 Compared with November 2004 Version



Source: GAO analysis of CBP data.

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Objective 2 Results
Open Recommendations

Open recommendation 8: Report quarterly to the House and Senate Appropriations Committees on efforts to address open GAO recommendations.

Status: In progress

CBPMO submitted reports to the Committees on its efforts to address open GAO recommendations for the quarters ending March 31, 2004, and June 30, 2004. CBPMO plans to submit a report for the quarter ending September 30, 2004, after it is approved by DHS and OMB.

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Objective 3 Results
Observations

Observation 1: Initial ACE releases have largely met a key service level agreement.

According to a service level agreement between eCP and CBPMO, 99.9 percent of all ACE transactions are to be executed successfully each day. eCP reports that ACE has met this requirement on all but 11 days (shown below) since February 1, 2004.

Date	Percentage of daily transactions successful
February 25, 2004	89.86
March 28, 2004	90.83
August 15, 2004	99.70
August 30, 2004	98.06
October 30, 2004	99.86
November 10, 2004	99.50
November 11, 2004	87.17
November 12, 2004	87.17
November 13, 2004	91.44
November 14, 2004	96.83
November 22, 2004	95.49

Source: eCP.

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Objective 3 Results
Observations

For each day that the system did not meet the service level agreement, eCP identified the root cause. For example, one of the incidents was due to insufficient shutdown and startup procedures and another was caused by an incorrectly configured Java Archive (JAR) file.[1] eCP also reported on actions taken to prevent a reoccurrence of the problem. For example, eCP reported that it has amended the startup and shutdown procedures, and made operators aware of the changes, and it has implemented steps for correctly capturing changes to JAR file configurations.

The November 10 to November 14 incidents were all attributed to a single cause: a defect in a software update that allowed some trade users to inappropriately view account information on other trade accounts. According to the root cause analysis report, eCP corrected the software error and then manually reviewed each account to ensure that permissions had been set appropriately. However, this report also raised questions as to whether system updates were being executed without regard to risk mitigation in order to meet mandated schedules.

[1]Java™ Archive (JAR) files bundle multiple class files and auxiliary resources associated with applets and applications into a single archive file.

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Objective 3 Results
Observations

Observation 2: Progress toward establishing ACE user accounts has not met expectations.

CBPMO established a goal of activating 1,100 ACE importer accounts by February 25, 2005, which is when Release 4 is to become operational. According to CBP, it is expected that the 1,100 accounts will represent more than 50 percent of total import duty collected at ports.

To help measure progress toward reaching the overall goal of 1,100 accounts, CBPMO established weekly targets. One target was to have 600 accounts activated by November 26, 2004. However, CBPMO reported that activated ACE accounts as of this date were 311, which is about 48 percent less than the interim target. In addition, since October 1, 2004, CBPMO has not reached any of its weekly targets, and the gap between the actual and targeted number of activated accounts has grown. As of December 15, 2004, CBPMO reports that 347 accounts have been activated. Further, CBPMO officials said that they expect rapid growth in activated accounts as Release 4 is deployed. The following figure shows the trend in target versus actual accounts activated.

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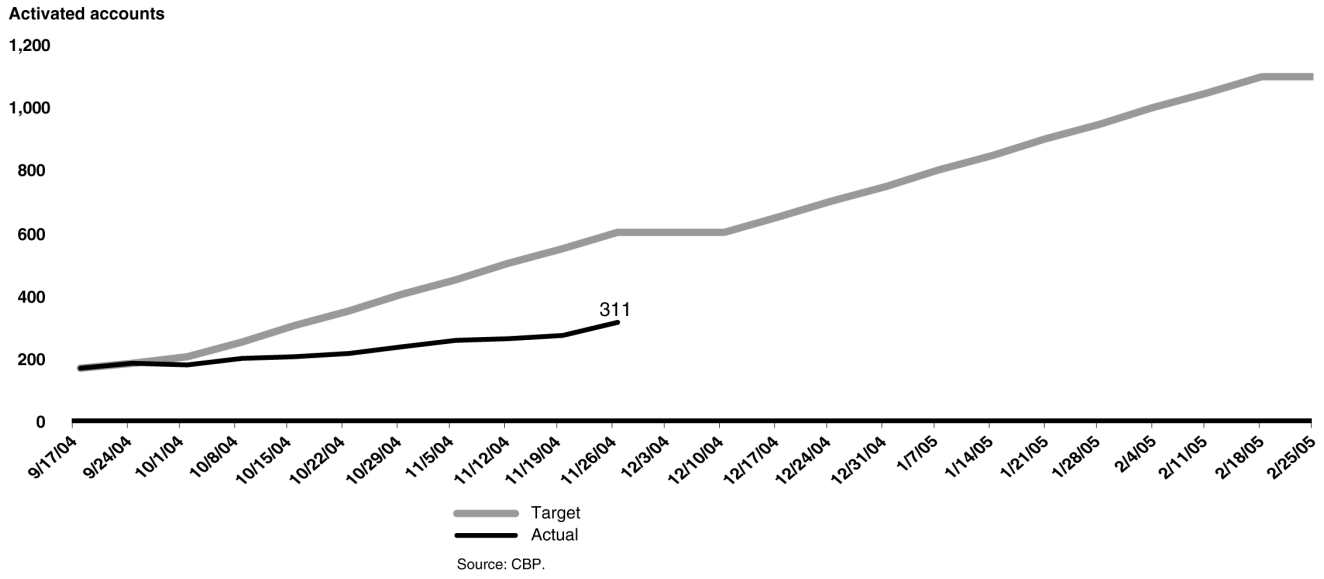
Objective 3 Results
Observations

Target Versus Actual Activated ACE Accounts



Source: CBP.

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Objective 3 Results
Observations

CBPMO officials stated that they are currently analyzing the reasons for the lower than expected number of user accounts. They also stated that they have initiated more aggressive techniques to inform the trade community about ACE benefits and to clarify the steps to participate.

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Objective 3 Results
Observations

Observation 3: Release 3 testing and pilot activities were delayed and have produced system defect trends that raise questions about decisions to pass key milestones and about the state of system maturity.

Development of each ACE release includes system integration and system acceptance testing, followed by a pilot period that includes user acceptance testing. Generally, the purpose of these tests is to identify defects or problems either in meeting defined system requirements or in satisfying system user needs. The purpose of the associated readiness reviews is to ensure that the system satisfies criteria for proceeding to the next stage of testing or operation.

Tests and their related milestones are described in the following table.

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Observations

Test	Description	Related milestone[a]
System integration test (SIT)	Verify that related system, subsystem, or module components are capable of integrating and interfacing with each other.	Test Readiness Review (TRR)
System acceptance test (SAT)	Verify that the developed system, subsystem, or module operates in accordance with requirements.	Production Readiness Review (PRR)
User acceptance test (UAT)	Verify that the functional scope of the release meets the business functions for the users.	Operational Readiness Review (ORR)

Source: eCP.

[a]Generally, the identified SDLC milestone review comes at the conclusion of the related test.

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Objective 3 Results
Observations

Defects identified during testing and operation of the system are documented as program trouble reports (PTRs). Defects are classified into one of four severity categories, as described below.

Category	Description
Critical (Severity 1)	Defect prevents or precludes the performance of an operational or mission-essential capability, jeopardizes safety or security, or causes the system, application, process, or function to fail to respond or to end abnormally.
Severe (Severity 2)	Defect prevents or precludes system from working as specified and/or produces an error that degrades or impacts the system or user functionality.
Moderate (Severity 3)	Defect prevents or precludes system from working as specified and/or produces an error that degrades or impacts the system or user functionality. An acceptable (reasonable and effective) work-around is in place that rectifies the defect until a permanent fix can be made.
Minor (Severity 4)	Defect is inconsequential, cosmetic, or inconvenient but does not prevent users from using the system to accomplish their tasks.

Source: eCP.

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Objective 3 Results
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Release 3 integration testing started later than planned, took longer than expected, and was declared successful despite open defects that prevented system from performing as intended.

In September 2003, Release 3 system integration testing (SIT) was scheduled to start on December 24, 2003, and last for 43 days. However, the start of SIT testing was delayed until February 18, 2004, or about 2 months, and it lasted 56 days, or about 2 weeks longer than planned.

CBPMO officials attributed the delays in Release 3 testing to Release 2 testing delays that caused the shared test environments to be delivered late to Release 3, and human capital that was held on Release 2 longer than planned. These officials also explained that the additional 2 weeks for Release 3 integration testing was due to the aforementioned late delivery of test environments, as well as to last minute design and development changes.

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Objective 3 Results
Observations

Release 3 SIT consisted of 85 test cases, all of which reportedly either passed or passed with exceptions. Those tests passing with exceptions generated defects, but because none of the test cases were judged to have completely failed, SIT was declared to be successfully executed. The test readiness review (TRR) milestone approval was granted because the approval criteria did not stipulate that all critical and severe defects had to be resolved, but rather that they either had to be resolved or have approved work-off plans in place. As a result, TRR approval occurred on April 26, 2004, even though CBPMO reported that 2 critical and 90 severe defects were open at this time. Of these 92 open defects, two critical ones were reported to have been closed 2 days after TRR, with 77 of the remaining severe defects being closed within the next 2 weeks. The remaining severe defects were largely closed, according to CBP, 4 weeks after TRR, with the final three being closed on June 21, 2004, which is 8 weeks after TRR.

Given that critical defects by definition prevent the system from performing mission-essential operations or jeopardize safety and security, among other things, and severe defects prevent the system from working as intended or produce errors that degrade system performance, using criteria that permit one phase of testing to be concluded and another phase to begin, despite having a large number of such problems, introduces unnecessary risk.

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Objective 3 Results
Observations

Moreover, using such exit criteria represents a significant change from the practice CBPMO followed on prior ACE releases, in which TRR could not be passed if any critical defects were present, and Production Readiness Review (PRR) could not be passed if any critical or severe defects were present. In effect, this change in readiness review exit criteria creates hidden overlap among test phases, as work to resolve defects from a prior phase of testing occurs at the same time that work is under way to execute a subsequent phase of testing. As we have previously reported, such concurrency among test phases has contributed to a recurring pattern of ACE release commitments not being met.

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Objective 3 Results
Observations

Release 3 acceptance testing started later than planned, concluded later than planned, and was declared successful despite material inventory of open defects.

Release 3 system acceptance testing (SAT) was planned to start on March 5, 2004, and last for 38 days. Because of delays caused by changes to the requirements baseline affecting the development of test cases, SAT began on May 7, 2004, about 2 months later than planned, and before all severe SIT defects were closed. In order to avoid further Release 3 schedule delays and maintain the PRR date of May 28, 2004, the SAT period was shortened from 38 to 20 days, or approximately half of the originally planned period. CBPMO officials noted that the program completed SAT in the compressed schedule by investing the additional resources needed to conduct tests 7 days a week, often for up to 12 hours each day.

Release 3 SAT consisted of 28 test cases, all of which reportedly passed successfully. During the SAT test period from May 7 to May 27, 2004, 3 critical, 129 severe, and 19 moderate defects were found.

Objective 3 Results
Observations

The exit criteria for Release 3 PRR also stipulated that all critical and severe defects either be resolved or have work-off plans identified. At the time of the PRR on May 28, 2004, CBP reported that 18 severe defects remained open. According to CBP, because these defects were determined not to pose an unacceptable risk to the system, their closure was intentionally delayed until after PRR. However, such defects, according to CBPMO's own definition, preclude the system from working as intended or produce errors that degrade system performance. This is one reason why guidance on effective test practices generally advocates closing such defects before concluding one phase of testing and beginning the next.

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Objective 3 Results
Observations

Release 3 pilot activities, including user acceptance testing, were declared successful, despite severe defects remaining open.

Two major activities conducted during the Release 3 Pilot Performance Period were training for CBP and trade users and user acceptance testing (UAT). This pilot period lasted from PRR on May 28, 2004, until ORR on August 25, 2004.

In training to prepare users to operate Release 3, business scenarios were used that reflected daily job functions; training was conducted over an 8- or 4-week period for CBP and trade users, respectively. This training received an average user satisfaction score of about 4 on a 1 to 5 scale, which is defined as “very good.”

Release 3 UAT consisted of CBP and trade users executing 19 and 23 test cases, respectively, and rating the release in several areas, again using a 1 to 5 scale (with 1 indicating “very dissatisfied” and 5 indicating “very satisfied”). The test areas were to address the major functionality that is new or was significantly changed from Release 2.

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Objective 3 Results
Observations

UAT average user satisfaction scores for were 4.0 or “satisfied” for trade users and 3.5 or “somewhat satisfied” for CBP users. According to CBPMO officials, the target score was 4.0. A reason cited for the lower scores for CBP users was that testing included a large number of less experienced users, who tended to be more critical of ACE than users who had more experience with the system.

The pilot period also produced a total of 191 defects, including 5 critical, 74 severe, 48 moderate, and 64 minor defects. CBPMO reported that 6 of the 74 severe defects remained open at ORR on August 25, 2004.

Similar to the TRR and PRR exit criteria, the criteria for passing Release 3 ORR stipulated that all critical and severe defects either be resolved or have work-off plans in place at the time of ORR. According to CBPMO, all defects that were open at ORR either had an acceptable work-around in place, or CBPMO expected that they would not adversely affect the use of the system. However, by definition, severe defects adversely affect system performance, and if an acceptable work-around exists, they are categorized as moderate defects, not severe defects.

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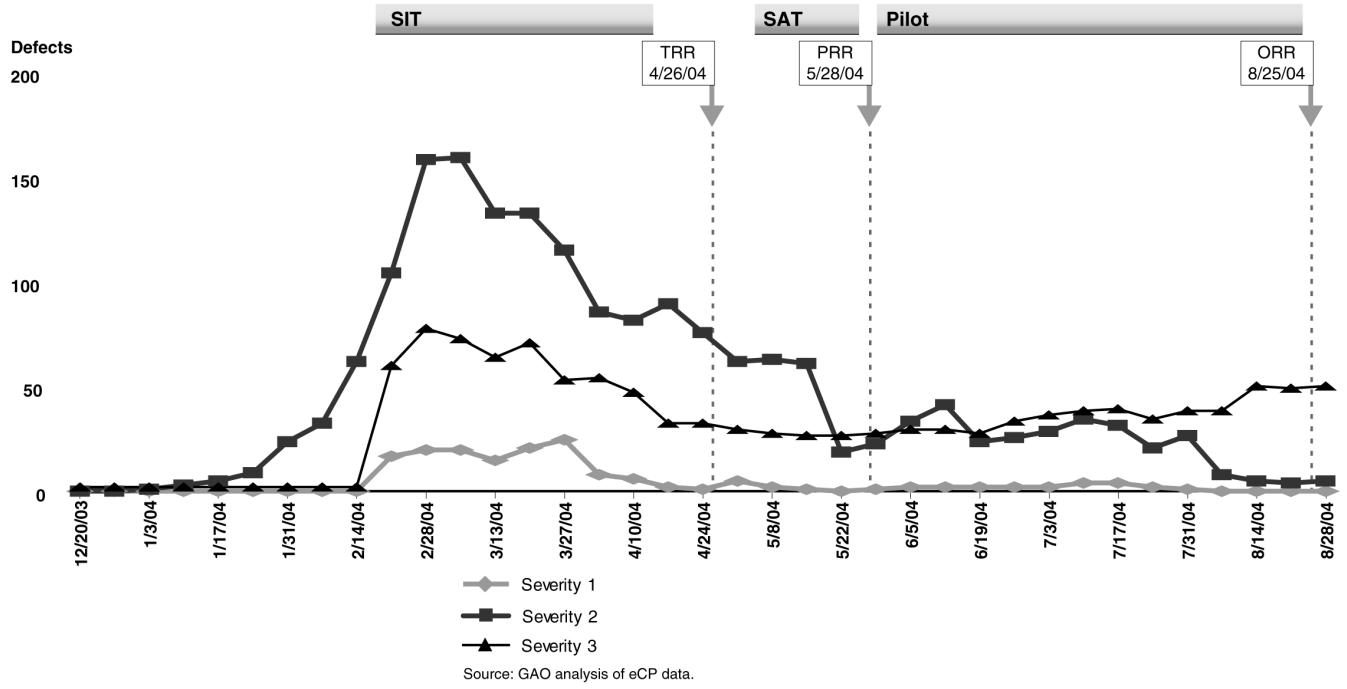
Objective 3 Results
Observations

Trends in Defects during the Release 3 Testing Period, Including the Number of Open Defects by Severity Classification at the Time of the Readiness Reviews



Source: GAO analysis of eCP data.

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Objective 3 Results
Observations

Current state of Release 3 maturity is unclear because defect data since user acceptance testing are not reliable.

Having current and accurate information on system defect density is necessary to adequately understand system maturity and to make informed decisions about allocation of limited resources in meeting competing priorities. Since the Release 3 ORR, available data show that Release 3 is operating with longstanding defects and that new defects have not been closed. For example, the defect data as of November 30, 2004, show that 18 defects that were open at TRR were still open (11 moderate and 7 minor); 33 defects open at PRR were still open (16 moderate and 17 minor); and 92 defects open at ORR were still open (2 severe, 43 moderate, and 47 minor). In addition, the data show that 43 defects opened since ORR (23 severe, 8 moderate, and 12 minor) were still open as of November 30, 2004. However, CBPMO officials told us that these data are not reliable because the focus has been on completing Release 4 testing and pilot activities, at the expense of keeping Release 3 defect data current and accurate. As a result, CBPMO does not currently have a complete picture of the maturity of each of its releases so that it can make internal resource allocation decisions.

Objective 3 Results
Observations

Observation 4: Release 4 test phases were delayed and overlapped, and revealed a higher than expected volume and significance of defects, raising questions about decisions to pass key milestones and about the state of system maturity.

As previously discussed, each ACE release is subject to SIT and SAT, which are conducted by eCP. Each release also undergoes UAT, which is conducted by CBP. Generally, the purpose of these tests is to identify defects or problems in either meeting defined system requirements or in satisfying system user needs. Defects are documented as PTRs that are classified by severity. The four severity levels are (1) critical, (2) severe, (3) moderate, and (4) minor.

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Objective 3 Results
Observations

Release 4 testing revealed a considerably higher than expected number of material defects.

Before initiating Release 4 testing, eCP forecasted and planned for resolution of an expected number of defects. Specifically, 2,018 total defects were estimated to be found by the time of PRR. Of the 2,018, 343 were to be critical, 1110 severe, 383 moderate, and 182 minor. However, at the time of PRR on November 23, 2004, 3757 total defects were reported, which is about 86 percent more than expected. Moreover, the significance of the defects was underestimated; 835 critical defects were reported (143 percent more than expected), and 2224 severe defects were reported (100 percent more than expected).

The following figure depicts the estimated and actual Release 4 defects according to their severity level.

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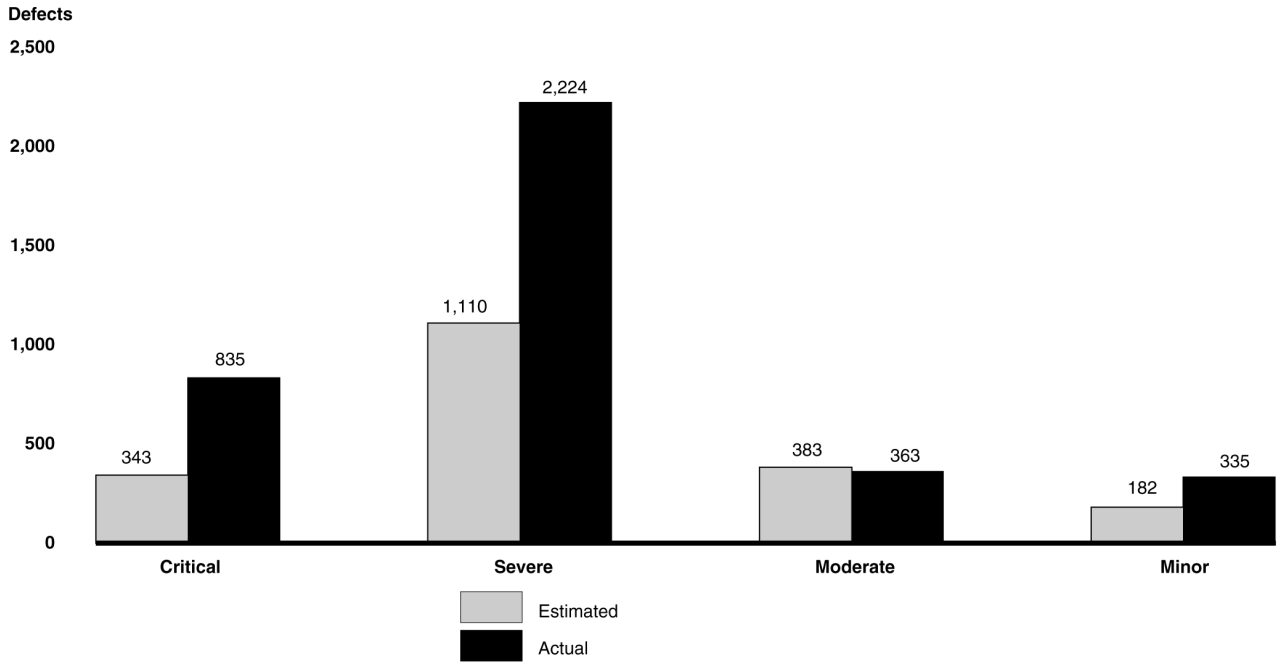
Objective 3 Results
Observations

Release 4 Expected Versus Actual Defects by Severity



Source: GAO analysis of CBP data.

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Objective 3 Results
Observations

eCP officials attributed the difference between estimated and actual Release 4 defects to their underestimating the complexity of developing the release, and thus underestimating the likely number of defects.

As a result of this significantly higher than expected number and severity of defects, eCP drew resources from a later release and, as discussed later, passed PRR with 5 critical and 37 severe defects.

The following figure depicts the total number of expected Release 4 defects in comparison to the actual number of defects identified.

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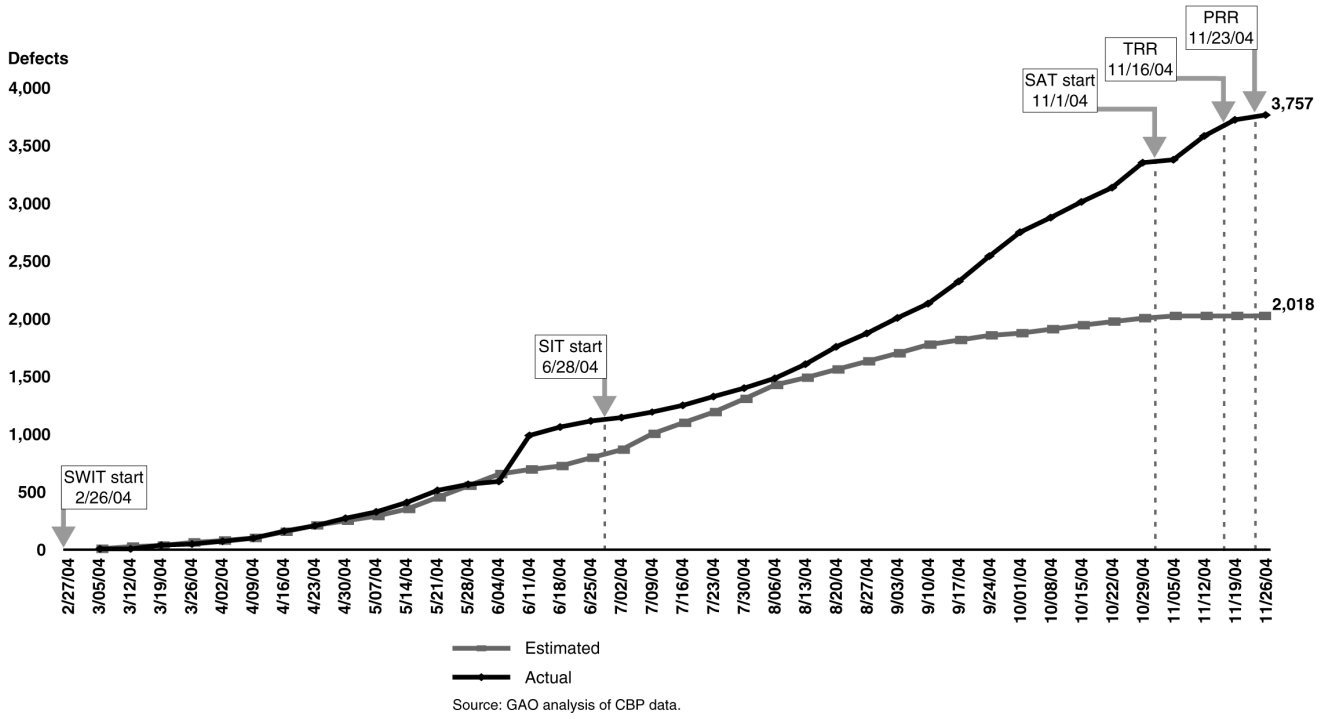
Objective 3 Results
Observations

Release 4 Expected Versus Actual Defects over Time



Source: GAO analysis of CBP data.

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Objective 3 Results
Observations

Release 4 integration and acceptance testing schedule changes resulted in tests being conducted concurrently.

According to the testing schedule, Release 4 SIT was scheduled to start on May 12, 2004, and to finish on October 1, 2004. However, SIT was started on June 28, 2004 (approximately 7 weeks later than planned) and completed on November 23, 2004 (approximately 8 weeks later than planned).

According to the same testing schedule, SAT was scheduled to start on October 19, 2004, and to last 39 days. However, SAT was started on November 1, 2004, and was completed on November 23, 2004, thus lasting for 23 days. According to eCP's actual testing schedule, the SAT period was shortened by 16 days, in order to reduce the impact of previous schedule delays and conduct the planned PRR by November 23.

Further, the testing schedule planned to have no concurrency between SIT and SAT. However, SIT and SAT were actually conducted concurrently, which as we previously reported, increases risk and contributed to past ACE cost and schedule problems (see next slide). According to program officials, rather than waiting for SIT to be fully completed before starting SAT, they began SAT on Release 4 functionality that successfully completed SIT.

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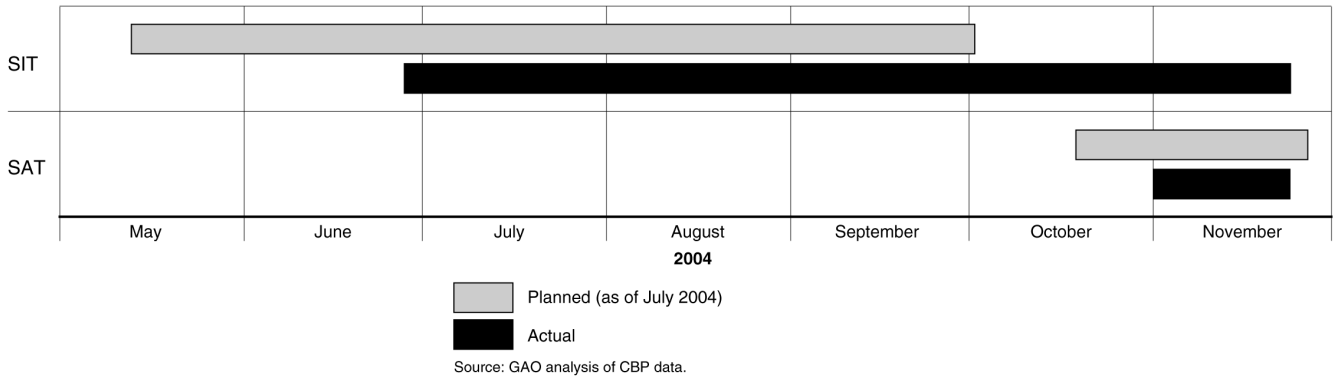
Objective 3 Results
Observations

Release 4 SIT and SAT Time Frames



Source: GAO analysis of CBP data.

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Objective 3 Results
Observations

Release 4 defect profile shows improvements in resolving defects, but critical and severe defects remain in operational system.

The number of open Release 4 defects peaked on October 8, 2004, when there were 59 critical, 243 severe, and 59 moderate defects open. CBPMO reports that since then, many of these defects have been closed.

CBPMO's criteria for successfully passing PRR requires that all critical and severe defects are resolved or have work-off plans. At the time of PRR on November 23, 2004, CBPMO reported that most defects were closed, with the exception of 5 critical and 37 severe defects for which they have established or intended to establish work-off plans. However, as of November 30, 2004, which was about 1.5 weeks from deployment of the Release 4 pilot period, 3 critical defects and 30 severe defects remained open.

The following graph shows the number of defects open each week during Release 4 testing.

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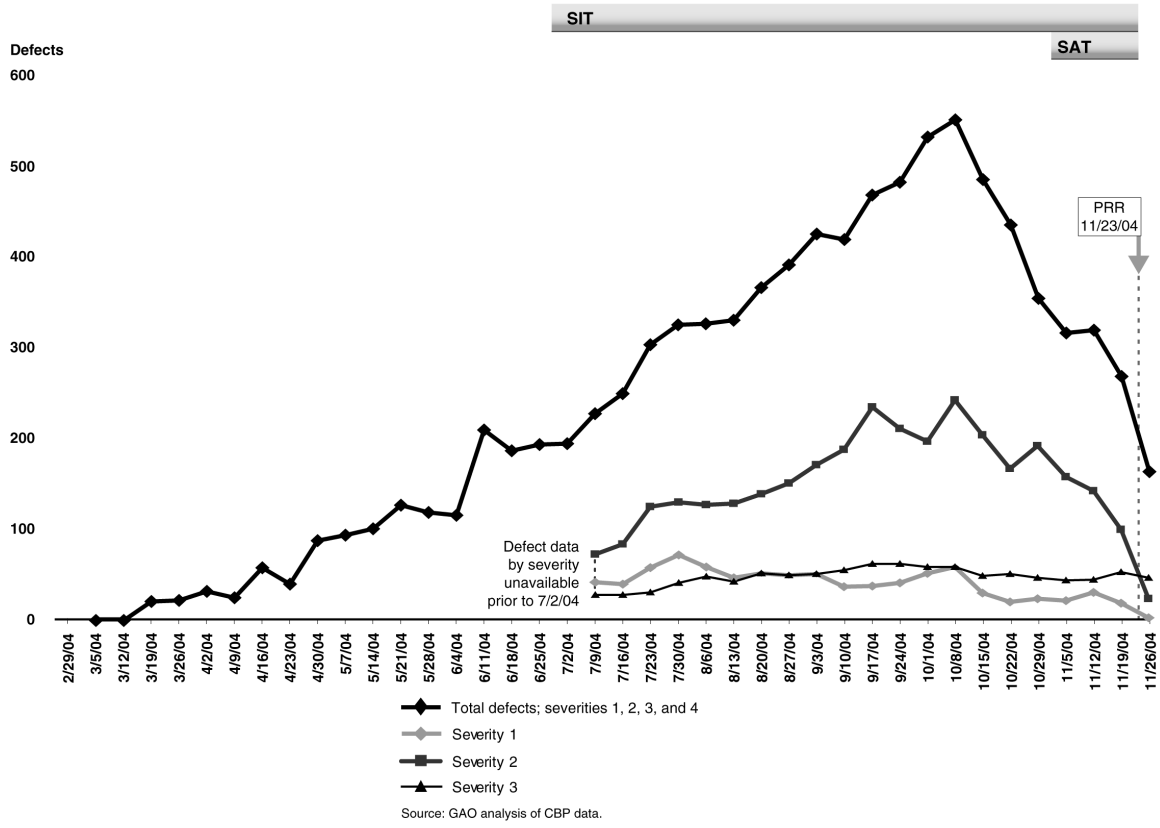
Objective 3 Results
Observations

Release 4 Defect Trend



Source: GAO analysis of CBP data.

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Objective 3 Results
Observations

Observation 5: Performance against the revised cost and schedule estimates for Releases 3 and 4 has been mixed.

Because the Release 3 and 4 contract was experiencing significant cost and schedule overruns, CBPMO established a new baseline, referred to as the Over Target Baseline (OTB) in April 2004. Program performance against the OTB is measured using EVM cost variances and schedule variances. Release 3 and 4 cost performance against the new baseline has been positive, but the schedule performance has not.

The chart on the following slide illustrates the cumulative cost variance on Release 3 and 4 since the OTB was established.

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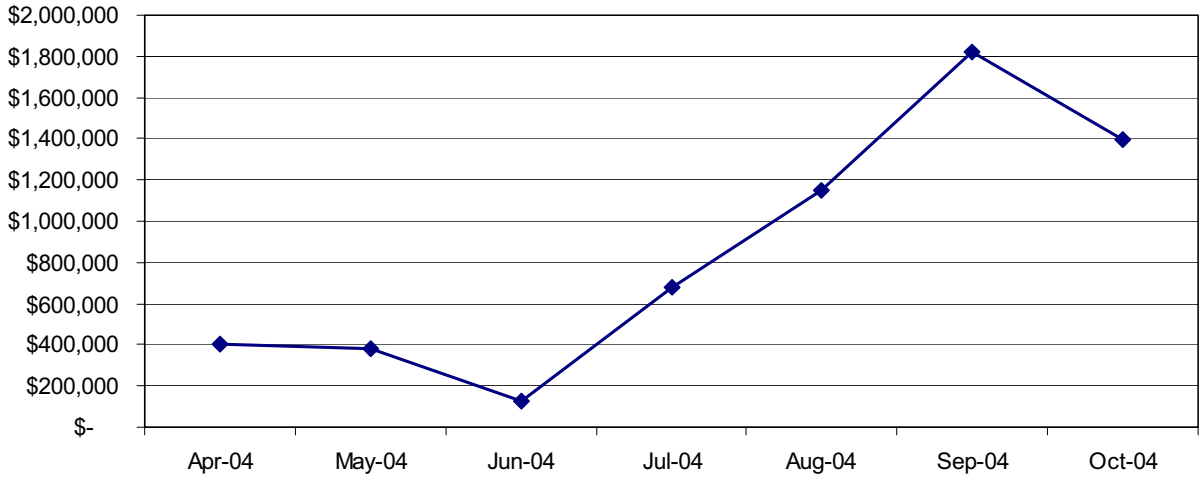
Objective 3 Results
Observations

As shown below, the Release 3 and 4 contract was about $1.8 million under budget in September 2004 and about $1.4 million under budget in October 2004. eCP attributed the recent slip in cost performance to additional resources being needed to complete Release 4 testing and to resolve Release 4 defects.

Release 3 and 4 Cumulative Cost Variance, April to October 2004



Source: CBP.

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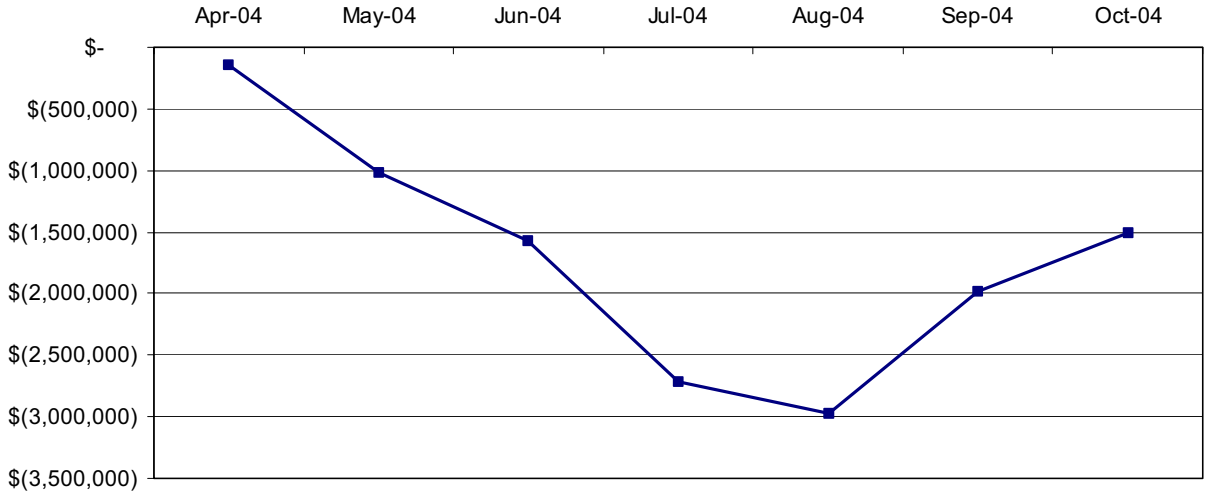
Objective 3 Results
Observations

In contrast, Release 3 and 4 contract performance has continued to fall short of the schedule OTB (see below).

Release 3 and 4 Cumulative Schedule Variance, April to October 2004



Source: CBP.

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Objective 3 Results
Observations

As shown on the previous slide, eCP recovered about $1.4 million of the schedule variance between August 2004 and October 2004 but still has not completed $1.5 million worth of scheduled work. According to eCP, the recent improvement in schedule performance reflects recent completion of such work as Release 4 testing.

While cost performance on Release 3 and 4 has been positive since the new baseline was established, schedule performance has not. In order to meet Release 4 schedule commitments, resources have been held on Release 4 longer than planned to complete testing and resolve defects. While this has resulted in an improvement in schedule performance in September and October 2004, it has also contributed to a slip in cost performance in October 2004. Continuing to devote extra resources to meet the Release 4 schedule could further impact the currently positive cost variance.

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Objective 3 Results
Observations

Observation 6: The fiscal year 2005 expenditure plan does not adequately describe progress against commitments (e.g., ACE capabilities, schedule, cost, and benefits) made in previous plans.

ACE is intended to provide greater security at our nation's borders while improving import and export processing, and its latest life-cycle cost estimate is about $3.1 billion. Given ACE's immense importance and sizable cost and complexity, the Congress has placed limitations on the use of program funds until it is assured, through the submission of periodic expenditure plans, that the program is being well managed.

As we have previously reported, to permit meaningful congressional oversight, it is important that expenditure plans describe how well CBP is progressing against the commitments made in prior expenditure plans.[1] However, the fiscal year 2005 expenditure plan did not adequately describe such progress. In particular, in its fiscal year 2004 expenditure plan, CBPMO committed to, for example,

- acquiring infrastructure (e.g., system environments, facilities, telecommunications, and licenses) for ACE releases and

[1]GAO, *Information Technology: Homeland Security Needs to Improve Entry Exit System Expenditure Planning*, GAO-03-563 (Washington, D.C.: June 9, 2003).

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Objective 3 Results
Observations

- defining and designing the ACE release (designated Release 6 at the time) that is intended to provide additional account management functionality.

The fiscal year 2005 plan, however, did not address progress against these commitments. For example, the plan did not describe the status of infrastructure acquisition, nor did it discuss the expenditure of the $106.6 million requested for this purpose. While the plan did discuss the status of the initial ACE releases, it did not describe progress toward defining and designing the functionality that was to be in the former Release 6.

Also, the fiscal year 2005 expenditure plan included a schedule for developing ACE releases, but neither reported progress relative to the schedule presented in the fiscal year 2004 plan nor explained how the individual releases and their respective schedules were affected by the rebaselining that occurred after the fiscal year 2004 plan was submitted.

Further, while the fiscal year 2005 expenditure plan contained high-level descriptions of the functionality provided by Releases 1 and 2, it did not describe progress toward achieving the benefits they are expected to provide.

Without such information, meaningful congressional oversight of CBP progress and accountability is impaired.

Objective 3 Results
Observations

Observation 7: Some key bases for the commitments made in the fiscal year 2005 expenditure plan have changed, raising questions as to the plan's currency and relevance.

The ACE fiscal year 2005 expenditure plan is based largely on the July 8, 2004. ACE Program Plan. This July plan represents the program's authoritative and operative guiding document or plan of action. Briefly, it describes such things as the ACE release construct, development methodology, deployment strategy, organizational change approach, training approach, and role/responsibility assignments. It also identifies key assumptions made in formulating the plan, provides a schedule for accomplishing major program activities, and contains estimates of costs for the total program and major activities.

Recent program developments and program changes have altered some key bases (e.g., assumptions, release construct, organizational change management approach, and roles and responsibilities) of the ACE program plan, and thus the current expenditure plan. As a result, questions arise as to the extent to which the expenditure plan's commitments remain current and relevant.

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Objective 3 Results
Observations

A key Release 5 assumption underpinning the program and expenditure plans is no longer valid.

Release 5 is to include the capability to receive a multimodal manifest that can be screened for risk indicators. According to the ACE program plan, delivery of this capability is to be accomplished using the SAP software product, which the SAP vendor was expected to enhance because its product does not currently contain the functionality to accommodate multimodal manifests. This expectation for product enhancement, within certain time and resource constraints, was an assumption in the ACE program plan, and was to be accomplished under a contract between eCP and the SAP vendor.

Following the program plan's approval, initial development of Release 5 began (e.g., planning for the release, negotiations to enhance the SAP product, development of release initiation documents, conduct of release functionality workshops). However, CBPMO has recently decided not to use SAP to provide the multimodal manifest functionality, thus rendering a key assumption in the program plan and the expenditure plan invalid. CBPMO has since suspended all work to develop the multimodal manifest functionality until a new approach to developing it is established. According to ACE officials, this change is intended to result in providing the multimodal manifest functionality faster and at lower cost.

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Objective 3 Results
Observations

Additional release(s) now planned that were not reflected in the program and expenditure plans.

CBPMO now plans to add at least one new ACE release. According to CBPMO officials, the need for additional Release 4 functionality was expressed by various user groups during the development of this release—functionality that was not in the scope of Release 4 and includes, for example, the capability for trade users to look up transactions, and for carriers to receive feedback on release of vehicles. In addition, the need for ACE to more easily accommodate new legislative mandates was identified. Therefore, a Release 4 enhancement, referred to as Release 4.1, has been added to the ACE release construct.

In October, CBPMO defined high-level functional requirements for Release 4.1, and it is currently defining more detailed requirements. However, this additional release, including its scope, costs, and schedule, are not reflected in the current ACE program plan or the fiscal year 2005 expenditure plan. According to program officials, any enhancement releases will not be reflected in the program plan until its next major update (August 2005), which is after CBPMO anticipates having implemented Release 4.1, and the first expenditure plan that could recognize it is the fiscal year 2006 plan.

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Objective 3 Results
Observations

ACE officials also stated that the costs of Release 4.1 and any additional releases will be funded by operations and maintenance funds provided for in the expenditure plan.

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Objective 3 Results
Observations

The current organizational change management approach is not fully reflected in program and expenditure plans, and key change management actions are not to be implemented.

As we have previously reported, best practices for acquiring and implementing commercial component-based systems include ensuring that the organizational impact of introducing functionality embedded in the commercial software products, like SAP, is proactively managed.[1] Accordingly, about 2 years ago we first discussed with ACE program executives the need to proactively prepare users for role, responsibility, and business process changes associated with ACE implementation. To its credit, the ACE program plan describes the organizational change approach that is to be pursued to position CBP for these changes. Specifically, the plan discusses three primary activities that are to be performed: communicating and reaching out to stakeholders; providing training; and establishing a performance measurement structure.

On August 10, 2004, a revised organizational change approach was introduced. This new approach introduces new change management activities. As of November 2004, some of these activities are being or are planned to be implemented.

[1]GAO, *Information Technology: DOD's Acquisition Policies and Guidance Need to Incorporate Additional Best Practices and Controls,* GAO-04-722 (Washington, D.C.: July 2004).

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Objective 3 Results
Observations

These activities include conducting a communications campaign, mapping employee roles with position descriptions, and providing learning aids and help desk support.

However, because this revised organizational change approach was finalized more than a month after the ACE Program Plan was completed, neither the program plan nor the fiscal year 2005 expenditure plan fully reflects the changes.

Moreover, because the ACE funding request for fiscal year 2005 did not fully reflect the revised approach to managing organizational change, key actions associated with the revised approach are not planned for implementation in fiscal year 2005. For example, one key action was to establish and communicate ACE usage targets, which would both encourage ACE usage and permit performance to be measured. This is important, according to eCP, because users may continue to rely on ACS, which would preclude accrual of full ACE benefits. CBPMO officials stated that each of the key actions that will not be implemented introduces risks that must be mitigated. Formal program risks and associated mitigation plans are currently under development. The following slide summarizes change management actions in the revised approach that are not planned for implementation and their associated risks.

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Objective 3 Results
Observations

Actions not planned for implementation	**Risk statements**
Establish and communicate targets for ACE usage to encourage users to use ACE rather than ACS.	If ACS remains available to ACE users, they may continue to use the legacy system, and as a result the full benefits of ACE will not be realized.
Before training, make users aware of the major differences between ACS and ACE.	If ACE users do not understand the differences between the legacy systems and ACE, then the users will not understand how best to use ACE, which may result in resistance to the new system and processes.
Discuss the future needs of CBP to establish new roles and responsibilities within the Office of Information and Technology (OIT).	If future roles of the OIT are not established, then OIT may not be prepared to provide technical support when ACE is transferred from eCP to OIT.
Send staff to visit ports to build critical knowledge regarding organizational change objectives.	If staff do not have adequate access to representatives of occupational groups at each port, then communications, training, and deployment efforts cannot be customized to each group's needs. This may delay or disrupt ACE adoption.

Source: CBP.

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Objective 3 Results
Observations

Recent changes to the respective roles and responsibilities of the ACE development contractor and CBPMO are not reflected in the program and expenditure plans.

As previously mentioned, on April 27, 2001, eCP was awarded a contract to develop and deploy ACE. The strategy was for the government to play the role of the system acquirer and to leverage the expertise of eCP, which was to be the system developer. Accordingly, CBPMO has since been responsible for performing system acquisition functions (e.g., contract tracking and oversight, evaluation of acquired products and services, and risk management), and eCP has been responsible for system development functions (e.g., requirements development; design, development, testing, and deployment of Releases 1, 2, 3, and 4; and related services, including architecture and engineering). These respective roles and responsibilities are reflected in the ACE program plan, and thus the fiscal year 2005 expenditure plan.

According to CBPMO officials, these respective roles and responsibilities are being realigned so that CBPMO and eCP will share ACE development duties. That is, CBPMO will be responsible for certain ACE development and deployment efforts as well as for oversight of the development efforts for which eCP will retain responsibility. eCP will also provide support to CBPMO's development efforts.

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Objective 3 Results
Observations

More detailed information on how this change in roles and responsibilities will be operationalized was not yet available. Moreover, this change in approach is not reflected in either the ACE program plan or the fiscal year 2005 expenditure plan.

Nevertheless, this change in approach is significant, and thus it is important that it be managed carefully. As we previously reported, effective management of a large-scale systems modernization program, like ACE, requires a clear allocation of the respective roles and responsibilities of the government and the contractor,[1] particularly with regard to responsibility for integrating system components developed by different parties. The extent to which these are made explicit and unambiguous will go a long way in ensuring proper accountability for performance.

[1]GAO, *Tax Systems Modernization: Results of Review of IRS' Initial Expenditure Plan,* GAO/AIMD/GGD-99-206 (Washington, D.C.: June 1999).

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Conclusions

DHS and OMB have largely satisfied four of the five conditions associated with the fiscal year 2005 ACE expenditure plan that were legislated by the Congress, and we have satisfied the fifth condition. Further, CBPMO has continued to work toward implementing our prior recommendations aimed at improving management of the ACE program and thus the program's chances of success. Nevertheless, progress has been slow in addressing some of our recommendations, such as the one encouraging proactive management of the relationships between ACE and other DHS border security programs, like US-VISIT. Given that these programs have made and will continue to make decisions that determine how they will operate, delays in managing their relationships will increase the chances that later system rework will eventually be required to allow the programs to interoperate.

Additionally, while DHS has taken important actions to help address ACE release-by-release cost and schedule overruns that we previously identified, it is unlikely that the effect of these actions will prevent the past pattern of overruns from recurring. This is because DHS has met its recently revised cost and schedule commitments in part by relaxing system quality standards, so that milestones are being passed despite material system defects, and because correcting such defects will ultimately require the program to expend resources, such as people and test environments, at the expense of later system releases (some of which are now under way).

Conclusions

In the near term, cost and schedule overruns on recent releases are being somewhat masked by the use of less stringent quality standards; ultimately, efforts to fix these defects will likely affect the delivery of later releases. Until accountability for ACE is redefined and measured in terms of all types of program commitments—system capabilities, benefits, costs, and schedules—the program will likely experience more cost and schedule overruns.

During the last year, DHS's accountability for ACE has been largely focused on meeting its cost and schedule baselines. This focus is revealed by the absence of information in the latest expenditure plan on progress against all commitments made in prior plans, particularly with regard to measurement and reporting on such things as system capabilities, use, and benefits. It is also shown by the program's insufficient focus on system quality, as demonstrated by its willingness to pass milestones despite material defects, and by the absence of attention to the current defect profile for Release 3 (which is already deployed).

Conclusions

Moreover, the commitments that DHS made in the fiscal year 2005 expenditure plan have been overcome by events, which limits the currency and relevance of this plan and its utility to the Congress as an accountability mechanism. As a result, the prospects of greater accountability in delivering against its capability, benefit, cost, and schedule commitments are limited. Therefore, it is critically important that DHS define for itself and the Congress an accountability framework for ACE, and that it manage and report in accordance with this framework. If it does not, the effects of the recent rebaselining of the program will be short lived, and the past pattern of ACE costing more and taking longer than planned will continue.

Recommendations

To strengthen accountability for the ACE program and better ensure that future ACE releases deliver promised capabilities and benefits within budget and on time, we recommend that the DHS Secretary, through the Under Secretary for Border and Transportation Security, direct the Commissioner, Customs and Border Protection, to define and implement an ACE accountability framework that ensures

- coverage of all program commitment areas, including key expected or estimated system (1) capabilities, use, and quality; (2) benefits and mission value; (3) costs; and (4) milestones and schedules;
- currency, relevance, and completeness of all such commitments made to the Congress in expenditure plans;
- reliability of data relevant to measuring progress against commitments;
- reporting in future expenditure plans of progress against commitments contained in prior expenditure plans;
- use of criteria for exiting key readiness milestones that adequately consider indicators of system maturity, such as severity of open defects; and
- clear and unambiguous delineation of the respective roles and responsibilities of the government and the prime contractor.

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Agency Comments

In their oral comments on a draft of this briefing, DHS and CBP officials, including the DHS Chief Information Officer (CIO), the Border and Transportation Security CIO, and the CBP Acting CIO, generally agreed with our findings, conclusions, and recommendations and stated that it was fair and balanced. They also provided clarifying information that we incorporated as appropriate in this briefing.

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Attachment 1
Scope and Methodology

Scope and Methodology

To accomplish our objectives, we analyzed the ACE fiscal year 2005 expenditure plan and supporting documentation, comparing them to relevant federal requirements and guidance, applicable best practices, and our prior recommendations. We also interviewed DHS and CBP officials and ACE program contractors. In particular, we reviewed

- DHS and CBP investment management practices, using OMB A-11, part 7;
- DHS and CBP activities for ensuring ACE compliance with the DHS enterprise architecture;
- DHS and CBP acquisition management efforts, using SEI's SA-CMM;
- CBP cost estimating program and cost estimates, using SEI's institutional and project-specific estimating guidelines;[1]

[1]SEI's institutional estimating guidelines are defined in *Checklists and Criteria for Evaluating the Cost and Schedule Estimating Capabilities of Software Organizations,* and SEI's project-specific estimating guidelines are defined in *A Manager's Checklist for Validating Software Cost and Schedule Estimates*.

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Attachment 1
Scope and Methodology

- CBP actions to coordinate ACE with US-VISIT using program documentation;
- ACE testing plans, activities, system defect data, and system performance data using industry best practices;
- independent verification and validation (IV&V) activities using the Institute of Electrical and Electronics Engineers Standard for Software Verification and Validation;[1]
- CBP establishment and use of performance measures using the draft Performance Metrics Plan and eCP's cost performance reports;
- ACE's performance using service level agreements;

[1]Institute of Electrical and Electronics Engineers (IEEE) Standard for Software Verification and Validation, IEEE Std 1012-1998 (New York: Mar. 9, 1998).

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Attachment 1
Scope and Methodology

- CBP's progress toward increasing the number of ACE user accounts, against established targets;
- ACE's quality, using eCP defect data and testing results for Releases 3 and 4; and
- cost and schedule data and program commitments from program management documentation.

For DHS-, CBP-, and contractor-provided data that our reporting commitments did not permit us to substantiate, we have made appropriate attribution indicating the data's source.

We conducted our work at CBP headquarters and contractor facilities in the Washington, D.C., metropolitan area from April 2004 through December 2004, in accordance with generally accepted government auditing standards.

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Comments from the U.S. Department of Homeland Security

U.S. Department of Homeland Security
Washington, DC 20528

Homeland Security

February 22, 2005

Mr. Randolph C. Hite
Director, Information Technology Architecture
and Systems Issues
U.S. Government Accountability Office
Washington, DC 20548

Re: Draft Report GAO-05-267SU, Information Technology: Customs Automated Commercial Environment Program Progressing, but Need for Management Improvements Continues

Dear Mr. Hite:

Thank you for the opportunity to review and comment on the subject draft report. We are providing general comments for your use in preparing the final report and have submitted technical comments under separate cover.

The Department of Homeland Security (DHS) agrees with the status of open recommendations and recommendations for DHS executive action. The GAO report indicates that earlier recommendations regarding independent verification and validation, and the Automated Commercial Environment (ACE) acquisition schedule, have been satisfied, and DHS concurs.

DHS's Customs and Border Protection Modernization Office (CBPMO) continues to address the remaining open recommendations regarding: (1) cost estimating; (2) human capital management; (3) use of ACE for other DHS applications; (4) program management metrics and measurements; and (5) quarterly reporting to Congress. The Department notes that because of their recurring nature, aspects of recommendation 1, and recommendations 3 and 5 above will likely remain open for the life of the program. DHS program officials intend to coordinate further with GAO representatives to ensure understanding and agreement on closure criteria for all open recommendations.

In its report, the GAO emphasized one overarching recommendation for the ACE program. This recommendation requires that DHS define and implement an ACE accountability framework that better ensures future ACE releases deliver promised capability and benefits, within budget and on time.

Since program inception, ACE program managers anticipated that the scale and technical complexity of the ACE program would result in changes to the program. In September 2001, it became clear that world events would also change the nature of the program to

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be more focused on border security. With this backdrop, the Department has two key objectives for the program – develop ACE capabilities sooner and at less cost, and ensure those capabilities hit the mark when fielded. To achieve both objectives, sound decision processes and clear quality standards have been established.

DHS has in place a solid program management foundation of acquisition processes, program analysis and reporting mechanisms, and management systems to effectively manage the program. This is complemented by strong stakeholder relationships that support the development of ACE requirements, and provide feedback on ACE capabilities. Though the addition of post-9/11 security requirements has resulted in a longer ACE development schedule than originally planned, this existing foundation has indeed helped DHS ensure program accountability, including keeping program costs within 10 percent of the program baseline, and managing the program within approved program funding.

Likewise, DHS has followed its established processes to balance quality, cost, and schedule objectives. For example, specific criteria are established for all ACE development milestone reviews. The process requires verification that all problems have been resolved or have viable resolution plans before the milestone is considered successfully accomplished. Problem areas are prioritized and assessed to determine whether deferring closure to post-milestone review resolution is an acceptable risk. The resolution plans are implemented and tracked closely until the problem is resolved. This process reflects careful consideration and deliberate decisions by DHS officials as they seek to balance program objectives.

The ACE program continues to make progress toward developing and deploying those capabilities that will better detect and act on threats to the United States and our fellow citizens, and ensure the efficient flow of legitimate trade across our borders. ACE users have indicated their enthusiasm for the account management capabilities that have already been deployed, and DHS has implemented an automated truck manifest pilot that is setting the stage for broad expansion of ACE capabilities in the coming year.

Also, the CBPMO has been reorganized to enhance government oversight of ACE support contractors. This reorganization will foster organizational cohesion and integration among Office of Information and Technology (OIT) staff agencies, and expand Modernization/ACE program ownership and commitment within OIT. This reorganization does not change the roles and responsibilities or relationship between the government and the e-Customs Partnership (eCP), which continues its role as the ACE systems integration contractor.

Acknowledging the six subordinate elements of the new GAO recommendation, DHS will build on the existing program management foundation and the aforementioned reorganization to further define and enhance its accountability framework. As the accountable DHS official, the CBPMO Executive Director is committed to taking the following actions to improve the ACE program accountability framework:

- Establish a clear delineation of roles and responsibilities between Customs and Border Protection and the prime contractor (eCP). This will be accomplished as part of the ACE acquisition strategy. This effort will also drive the continued development and refinement of individual roles and responsibilities as part of the CBPMO Strategic Human Capital Management Program, which is covered under a separate GAO recommendation. The overall Human Capital Management effort will continue to be grounded in the established Human Capital Management Strategic Plan and the ten human capital principles emphasized by GAO (January 2000 GAO report *Human Capital: Key Principles from Nine Private Sector Organizations*).

- Establish a formal document that defines the ACE program accountability framework, its key elements, and a description of how it is being implemented. This document will further depict the decision-making mechanisms for the ACE program.

- In conjunction with the GAO review of the Fiscal Year 2006 (FY06) Expenditure Plan:

  - Demonstrate coverage, currency, relevance, and completeness of all program commitment areas – and the reliability of the data that measures progress on these commitments – as outlined by GAO in its March 2005 report. To satisfy this element of the GAO recommendation, the CBPMO will include the status of FY05 Expenditure Plan commitments, and show alignment with other key program documents.
  - Demonstrate the application of milestone exit criteria that adequately consider indicators of system maturity.

As stewards of the taxpayers' dollars, and mindful of the threat posed by those who would harm our citizens and disrupt our American way of life, the Department and the entire ACE team remain deeply committed to the ACE program. The Department is working diligently to ensure the program is managed within the targets established by the ACE program plan, timely reporting of progress against that plan, and when necessary, changes to the program baseline to deliver the capabilities needed to ensure the safety and economic security of our Nation. The ACE program team values the GAO role and the relationship it has with its representatives, and looks forward to working together with them to achieve the objectives embodied in this report.

We thank you again for the opportunity to provide comments on this draft report and look forward to working with you on future homeland security issues.

Sincerely,

Steven J. Pecinovsky
Acting Director, Departmental GAO/OIG Liaison
Office of the Chief Financial Officer

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Staff Acknowledgments

In addition to the person named above, Carol Cha, Barbara Collier, William Cook, Neil Doherty, Nnaemeka Okonkwo, and Shannin O'Neill made key contributions to this report.

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