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# BORDER SECURITY

## US-VISIT Program Faces Strategic, Operational, and Technological Challenges at Land Ports of Entry



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# Highlights

Highlights of [GAO-07-248](#), a report to congressional requesters

## Why GAO Did This Study

The Department of Homeland Security (DHS) established the U.S. Visitor and Immigrant Status Indicator Technology (US-VISIT) program to collect, maintain, and share data on selected foreign nationals entering and exiting the United States at air, sea and land ports of entry (POEs). These data, including biometric identifiers like digital fingerprints, are to be used to screen persons against watch lists, verify visitors' identities, and record arrival and departure. GAO was asked to review implementation at land POE facilities and in doing so GAO analyzed: (1) efforts to implement US-VISIT entry capability; (2) efforts to implement US-VISIT exit capability; and (3) DHS's efforts to define how US-VISIT fits with other emerging border security initiatives. GAO reviewed DHS and US-VISIT program documents, interviewed program officials, and visited 21 land POEs with varied traffic levels on both borders.

## What GAO Recommends

GAO recommends that DHS improve existing management controls for US-VISIT; develop performance measures to assess the impact of US-VISIT at land POEs; and ensure that a statutorily mandated report describes how DHS will move to a biometric entry/exit capability and align US-VISIT with emerging land border security initiatives. DHS generally agreed and said that it has begun to or plans to implement GAO's recommendations.

[www.gao.gov/cgi-bin/getrpt?GAO-07-248](http://www.gao.gov/cgi-bin/getrpt?GAO-07-248).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Richard Stana at (202) 512-8777 or [stanar@gao.gov](mailto:stanar@gao.gov).

## BORDER SECURITY

# US-VISIT Program Faces Strategic, Operational, and Technological Challenges at Land Ports of Entry

## What GAO Found

US-VISIT entry capability has been installed at 154 of the 170 land POEs. Officials at all 21 sites GAO visited reported that US-VISIT had improved their ability to process visitors and verify identities. DHS plans to further enhance US-VISIT's capabilities by, among other things, requiring new technology and equipment for scanning all 10 fingerprints (see photo, left, below). While this may aid border security, installation could increase processing times and adversely affect operations at land POEs where space constraints, traffic congestion, and processing delays already exist. GAO's work indicated that management controls in place to identify such problems and evaluate operations were insufficient and inconsistently administered. For example, GAO identified computer processing problems at 12 sites visited; at 9 of these, the problems were not always reported. US-VISIT has developed performance measures, but measures to gauge factors that uniquely affect land POE operations were not developed; these would put US-VISIT officials in a better position to identify areas for improvement.

US-VISIT officials concluded that, for various reasons, a biometric US-VISIT exit capability cannot now be implemented without incurring a major impact on land POE facilities. An interim nonbiometric exit technology being tested (see photo, right, below) does not meet the statutory requirement for a biometric exit capability and cannot ensure that visitors who enter the country are those who leave. DHS has not yet reported to Congress on a required plan describing how it intends to fully implement a biometric entry/exit program, or use nonbiometric solutions. Until this plan is finalized, neither DHS nor Congress is in a good position to prioritize and allocate program resources or plan for POE facilities modifications.

DHS has not yet articulated how US-VISIT is to align with other emerging land border security initiatives and mandates, and thus cannot ensure that the program will meet strategic program goals and operate cost effectively at land POEs. Knowing how US-VISIT is to work with these initiatives, such as one requiring U.S. citizens, Canadians, and others to present passports or other documents at the border in 2009, is important for understanding the broader strategic context for US-VISIT and identifying resources, tools, and potential facility modifications needed to ensure success.

**US-VISIT entry capability set-up with computer and camera (left); nonbiometric exit identification readers mounted over highway (right)**



Source: GAO.

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## Abbreviations

AIDMS	Automated Identification Management System
APIS	Advance Passenger Information System
BCC	Border Crossing Card
CBP	Customs and Border Protection
DHS	Department of Homeland Security
DMIA	Immigration and Naturalization Service Data Management Improvement Act
FBI	Federal Bureau of Investigation
ICAO	International Civil Aviation Organization
ICE	Immigration and Customs Enforcement
IDENT	Automated Biometric Identification System
IIRIRA	Illegal Immigration Reform and Immigrant Responsibility Act
INS	Immigration and Naturalization Service
OIG	Office of Inspector General
POE	port of entry
RFID	radio frequency identification
SBI	Secure Border Initiative
TECS	Treasury Enforcement Communications System
US-VISIT	United States Visitor and Immigrant Status Indicator Technology
VWP	Visa Waiver Program
WHTI	Western Hemisphere Travel Initiative

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### Congressional Requesters

This report is a publicly available version of our report on the implementation of the U.S. Visitor and Immigrant Status Indicator Technology (US-VISIT) program at land ports of entry (POE).<sup>1</sup> Our original report was designated For Official Use Only because, according to the Department of Homeland Security (DHS), it contained specific information of a sensitive nature.

In the years since the 2001 terrorist attacks, the need to secure U.S. borders has taken on added importance and has received increasing attention from Congress and the public. In an effort to avoid repetition of such attacks, and improve overall national security, Congress and the Administration have sought better ways to record and track the entry and departure of foreign visitors who pass through U.S. POEs by air, land, or sea, to verify their identities, and to authenticate their travel documentation. In March 2003, responsibility for these efforts was transferred from the former Immigration and Naturalization Service to DHS. Pursuant to several statutory mandates, DHS, in consultation with the Department of State, established an automated visitor system to integrate information on the entry and exit from the United States of foreign nationals, called the US-VISIT Program.

According to DHS, the purpose of US-VISIT is to enhance the security of U.S. citizens and visitors, facilitate legitimate travel and trade, ensure the integrity of the U.S. immigration system, and protect visitors' privacy. The program is managed by the US-VISIT Program Office, which is headed by the US-VISIT Director, who currently reports to the DHS Deputy Secretary. US-VISIT is used in the field by officers with U.S. Customs and Border Protection (CBP), a separate DHS component. US-VISIT processing is one of many activities that takes place at POEs, where CBP officers enforce U.S. immigration laws governing the admissibility of the millions of aliens entering and U.S. citizens reentering the country daily; screen cargo for

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<sup>1</sup> A port of entry is generally a physical location, such as a pedestrian walkway and/or a vehicle plaza with booths, and associated inspection and administration buildings, at a land border crossing point, or a restricted area inside an airport or seaport, where entry into the country by persons and cargo arriving by air, land, or sea is controlled by U.S. Customs and Border Protection (CBP).

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weapons or illegal or dangerous goods; prevent narcotics, agricultural pests, and smuggled goods from entering the country; and identify and arrest those with outstanding criminal warrants.

US-VISIT is designed to use biographic information (e.g., name, nationality, and date of birth) and biometric information (e.g., digital fingerprint scans and photographs) to verify the identity of those covered by the program. The program applies to certain visitors whether they hold a nonimmigrant visa or are traveling from a country that has a visa waiver agreement with the United States under the Visa Waiver Program.<sup>2</sup> U.S. citizens, lawful permanent residents, and most Canadian and Mexican<sup>3</sup> citizens are currently exempt from being processed under US-VISIT upon entering and exiting the country.<sup>4</sup> Foreign nationals subject to US-VISIT who intend to enter the country encounter different inspection processes at different types of POEs depending on their mode of travel. Foreign nationals subject to US-VISIT who intend to enter the United States at an air or sea POE are to be processed, for purposes of US-VISIT, in the primary inspection area upon arrival. Generally, these visitors are subject to prescreening before they arrive via passenger manifests, which are

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<sup>2</sup>The Visa Waiver Program enables nationals of certain countries to travel to the United States for tourism or business for stays of 90 days or less without obtaining a visa. Most western European countries participate in this program, along with Japan, Singapore, Australia, Brunei, and New Zealand. Appendix II lists all 27 Visa Waiver Program countries.

<sup>3</sup>To visit the United States, Mexican citizens generally need either a Mexican passport and U.S. visa, or a Border Crossing Card (BCC), which is issued to Mexican visitors who wish to enter the country for business or pleasure for no more than 6 months. The BCC contains machine-readable biographic and biometric information. Mexican citizens with BCCs who are traveling within 25 miles of the border, (75 miles in Arizona, if entering through certain POEs near Tucson) and who plan to stay no more than 30 days, are generally not subject to US-VISIT processing upon entry. A Mexican citizen is subject to US-VISIT requirements, however, if a CBP officer determines that the entrant intends to stay more than 30 days or travel beyond the 25- or 75-mile limit.

<sup>4</sup>On July 27, 2006 DHS issued a Notice of Proposed Rulemaking that, if finalized, would expand the scope of US-VISIT to include, among others, lawful permanent residents, aliens seeking admission on immigrant visas, refugees and asylees, and certain categories of Canadians. DHS did not report how many additional persons would be covered by US-VISIT if the rule were adopted.

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forwarded to CBP by commercial air or sea carrier in advance of arrival.<sup>5</sup> By contrast, foreign nationals intending to enter the United States at land POEs are generally not subject to prescreening because they arrive in private vehicles or on foot and there is no manifest to record their pending arrival. Thus, when foreign nationals subject to US-VISIT arrive at a land POE, they are directed by CBP officers from the primary inspection area to the secondary inspection area for further processing. At all POEs, visitors covered by US-VISIT who are determined to be admissible are issued an I-94 arrival/departure form, which, among other things, records their date of arrival and the date their authorized period of admission expires. The requirement that arriving nonimmigrants admitted to the United States, unless otherwise exempted, be issued an I-94 as evidence of the terms of their admission predates implementation of US-VISIT and was incorporated into US-VISIT processing.<sup>6</sup>

Many aspects of US-VISIT program implementation have been driven or defined by various legislative mandates. These include a 2001 statutory requirement to focus particularly on the use of biometric technology in developing the integrated entry-exit system subsequently named US-VISIT; a 2002 statutory requirement to develop biometric identifier standards to be used to verify the identity of persons seeking to enter the United States at POEs; and a requirement to install at all POEs equipment and software to allow biometric comparison and authentication of U.S. visas and other travel and entry documents issued to aliens, as well as Visa Waiver Program participant passports. In addition, by law, an integrated entry and exit data system was to be implemented at all U.S. POEs, including land POEs, by December 31, 2005, but there was no specific requirement to collect any new data on foreign nationals departing at land POEs by that

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<sup>5</sup>Under the Enhanced Border Security and Visa Entry Reform Act of 2002 (Pub. L. No. 107-173, § 402(a), 116 Stat. 543, 557-59), commercial air and sea carriers are to transmit crew and passenger manifests to appropriate immigration officials before arrival of an aircraft or vessel in the United States. These manifests are transmitted to CBP through the Advanced Passenger Information System (APIS), which helps officers identify (1) those arrivals for which biometric data are available and (2) foreign nationals who need to be scrutinized more closely.

<sup>6</sup>Visitors traveling on nonimmigrant visas are issued Form I-94 and visitors from Visa Waiver Program countries are issued Form I-94W. Both forms show the date of arrival, port of entry, and date the authorized period of admission expires. Whereas passengers arriving on commercial air or sea liners are to fill out portions of an I-94 or I-94W arrival and departure form on the carrier in advance of arriving, visitors subject to US-VISIT at land POEs are to provide information for I-94s and I-94Ws during the inspection process, and the forms are issued after the process is completed.

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date. The Intelligence Reform and Terrorism Prevention Act of 2004, on the other hand, did require the collection of biometric exit data for all individuals subject to US-VISIT, but it did not set a deadline for implementation of this requirement.

The United States shares over 7,500 miles of land border with Canada and Mexico and currently, CBP operates 170 land POEs on the northern border with Canada and the southwest border with Mexico. These POEs are diverse in nature, with some operating in urban areas, such as Detroit, Michigan, and others operating in remote areas, such as the northern plains in Montana or along the southwest border. Taken together, land POEs process the largest number of visitors to the United States each year among all POEs (about 79 percent of about 425 million total border crossings during fiscal year 2004) and process fewer US-VISIT eligible visitors as compared to other POEs (about 11 percent of about 42 million border crossings processed via US-VISIT during fiscal year 2004).

As US-VISIT was being installed at land POEs, questions arose about the impact the program was having on the existing POE facilities where legitimate land-border crossings take place, particularly in light of a goal, stated by a former DHS Undersecretary, to develop a “smart border—one that speeds through legitimate trade and travel, but stops terrorists in their tracks.” We were asked to review implementation of US-VISIT at land POE facilities. Specifically, we analyzed the following issues: (1) What has the US-VISIT Program Office done to implement US-VISIT entry capabilities at land POEs and what impact has US-VISIT had on these facilities? (2) What is the status of US-VISIT Program Office efforts to implement a US-VISIT exit capability at land POE facilities? (3) What has DHS done to define a strategic context to show how US-VISIT entry and exit capabilities at land POE facilities fit with other current and emerging border security initiatives?

To meet our objectives, we met with officials at CBP and the US-VISIT Program Office within DHS in Washington, D.C. We reviewed applicable laws and regulations and studies on the US-VISIT program and examined available DHS documents on US-VISIT entry and exit capability and deployment at land POEs. We also visited 21 selected land POEs on the northern and southern borders where US-VISIT entry capability had been installed. Along the northern border, we visited land POEs at the Windsor Tunnel and Ambassador Bridge in Detroit, Michigan; the Thousand Islands Bridge at Alexandria Bay, Champlain, Overton Corners, and Rouses Point in northern New York State; Highgate Springs and Alburg Springs in northern Vermont; and Blaine-Pacific Highway and Blaine-Peace Arch in

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Blaine, Washington. Along the southern border, we visited the DeConcini, Morley Gate, and Mariposa POEs in Nogales, Arizona; the POE in San Ysidro in California; and POEs in Brownsville-Matamoros Bridge, Brownsville-Gateway, and Brownsville-Los Tomates/Veterans International Bridge, Hidalgo, Progreso, Pharr, and Los Ebanos in Texas. We selected these locations to ensure coverage on both borders and to obtain a mix of sites with varied types of environments and levels of traffic volume. Where feasible, we also chose to visit some geographically proximate POEs to minimize travel costs. In addition, five of these POEs (Thousand Islands Bridge, Blaine-Peace Arch, Blaine-Pacific Highway, DeConcini, and Mariposa) had been designated by DHS as locations to test exit technology. At all the locations we visited, we observed how US-VISIT equipment was installed and operated and interviewed CBP officials about US-VISIT installation and operations following deployment. We also observed the impacts of US-VISIT equipment and operations on POE facilities and infrastructures. In addition, we examined whether internal control mechanisms were in place and being used to ensure that program objectives were being achieved, consistent with GAO's Standards for Internal Controls in the Federal Government.<sup>7</sup> The information from our site visits is limited to the 21 land ports we visited and is not generalizable to all land ports of entry. Appendix I discusses our scope and methodology in greater detail.

We conducted our work from September 2005 through October 2006 in accordance with generally accepted government auditing standards.

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## Results in Brief

DHS has installed the entry portion of US-VISIT at 154 of the nation's 170 land POEs,<sup>8</sup> usually with minimal new construction or changes to existing facilities. As required by law, the US-VISIT entry capability includes biometric features—such as digital scans of 2 fingerprints—to help verify the identity of visitors. CBP officials at all 21 land POEs we visited told us that US-VISIT's entry capability has generally enhanced their ability to process visitors subject to US-VISIT by providing assurance that visitors'

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<sup>7</sup>GAO, *Internal Control: Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: November 1999), and GAO, *Internal Control Standards: Internal Control Management and Evaluation Tool*, [GAO-01-1008G](#) (Washington, D.C.: August 2001).

<sup>8</sup>US-VISIT was not installed at 14 of the 16 other POEs because visitors subject to US-VISIT are not permitted to enter the country at those locations; at the other 2 POEs, DHS lacked the infrastructure needed to install the equipment.

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identities can be confirmed through biometric identifiers and by automating the paperwork associated with processing I-94 arrival/departure forms. Going forward, DHS plans to introduce changes and enhancements to US-VISIT at land POEs intended to further bolster CBP's ability to verify the identity of individuals entering the country, including a transition from digitally scanning 2 fingerprints to 10. While such changes are intended to further enhance border security, deploying them may have an impact on aging and space-constrained land POE facilities because they could increase inspection times and adversely affect POE operations. Moreover, our previous and current work showed that the US-VISIT program office had not taken necessary steps to help ensure that US-VISIT entry capability operates as intended. For example, in February 2006 we reported that the approach taken by the US-VISIT program office to evaluate the impact of US-VISIT on land POE facilities focused on changes in I-94 processing time at 5 POEs and did not examine other operational factors, such as US-VISIT's impact on physical facilities or work force requirements.<sup>9</sup> As a result, program officials did not always have the information they needed to anticipate problems that occurred, such as problems processing high volumes of visitors in space constrained facilities. Turning to another aspect of our evaluation, our standards for internal controls in the federal government state that it is important for agencies to have controls in place to help ensure that policies and procedures are applied and that managers be made aware of problems so that that they can be addressed and resolved in a timely fashion.<sup>10</sup> CBP officials at 12 of 21 land POE sites we visited told us about US-VISIT-related computer slowdowns and freezes which adversely affected visitor processing and inspection times and at 9 of the 12 sites, computer processing problems were not always reported to CBP's computer help desk, as required by CBP guidelines. Although various controls are in place to alert US-VISIT and CBP officials to problems as they occur, these controls did not alert officials to all problems, given they had been unaware of the problems we identified before we brought them to their attention. These computer processing problems have the potential to not only inconvenience travelers because of the increased time needed to complete the inspection process, but to compromise security, particularly if CBP officers are unable to perform biometric checks—one of the critical reasons US-VISIT was installed at POEs. Our internal control standards

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<sup>9</sup>GAO, *Homeland Security: Recommendations to Improve Key Border Security Programs Need to Be Implemented*, [GAO-06-296](#) (Washington, D.C.: February 2006).

<sup>10</sup>[GAO/AIMD-00-21.3.1](#) and [GAO-01-1008G](#).

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also call for agencies to establish performance measures throughout the organization so that actual performance can be compared to expected results. While the US-VISIT program office established performance measures for fiscal years 2005 and 2006 intended to gauge performance of various aspects of US-VISIT at air, sea and land POEs in the aggregate, performance measures specifically for land POEs have not been developed. It is important to do so, given that there are significant operational and facility differences among these different types of POEs. Additional performance measures that consider operational and facility differences at land POEs would put US-VISIT program officials in a better position to identify problems, trends, and areas needing improvements.

US-VISIT has concluded that, for various reasons, it cannot currently implement a biometric US-VISIT exit capability without incurring a major impact on land POE facilities. According to officials, implementing a biometrically based exit recording system like that used to record those entering or re-entering the country is potentially costly (an estimated \$3 billion), would require new infrastructure, and would produce major traffic congestion because travelers would have to stop their vehicles upon exit to be processed—an option officials consider unacceptable. US-VISIT officials stated that they believe technological advances over the next 5 to 10 years will enable the biometric verification of persons exiting the country without a major impact on facilities. In the interim, the US-VISIT program office is testing radio frequency identification (RFID) technology as a nonbiometric means of recording visitors as they exit. RFID technology can be used to electronically identify and gather information contained on a tag—in this case, a unique identifying number embedded in a tag on a visitor's arrival/departure form—which an electronic reader at the POE is intended to detect. While RFID technology has thus far required few facility and infrastructure changes, US-VISIT's initial testing and analysis of this technology has identified numerous performance and reliability problems, such as the failure of RFID readers to detect a majority of travelers' tags during testing. Additional testing is planned to address such problems. Nevertheless, the RFID solution does not meet the statutory requirement for a biometric exit capability because the technology as tested cannot meet a key goal of US-VISIT—ensuring that visitors who enter the country are the same ones who leave. Specifically, the RFID tag in the visitor's arrival/departure form cannot be physically tied to an individual, which means that while a document may be detected as leaving the country, the person to whom it was issued at time of entry may be somewhere else. By statute, DHS was to have reported to Congress by June 2005 on how it intended to fully implement an entry/exit program. This plan is to include, among other things, a

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description of the manner in which the US-VISIT program meets the goals of a comprehensive entry and exit screening system—including both biometric entry and exit—and how it will fulfill statutory obligations. As of October 2006, this plan was still under review in the Office of the Secretary, according to US-VISIT officials. Without such a plan, DHS cannot articulate how entry/exit concepts fit together—including any interim nonbiometric solutions—and neither DHS nor Congress is in a good position to prioritize and allocate resources, including funds for any facility modifications that might be needed, for a US-VISIT exit capability, to plan for the program’s future, or to consider trade-offs between traveler convenience and security.

DHS has not yet articulated how US-VISIT is to strategically fit with other land-border security initiatives and mandates, and thus cannot ensure that these programs work in harmony to meet mission goals and operate cost effectively. As we reported 3 years ago, agency programs need to properly fit within a common strategic context governing key aspects of program operations, such as what functions are to be performed, what facility or infrastructure changes will be needed to ensure that they operate in harmony and as intended, and what standards govern the use of technology. DHS has drafted a strategic plan defining an overall immigration and border management strategy, but has not yet approved it, and did not provide it to us for review. Meanwhile, new border security initiatives or mandates are planned or under way that could potentially have an impact on US-VISIT operations and facilities at land POEs. For example, no later than June 2009, U.S. citizens and foreign nationals of Canada, Bermuda, and Mexico will be required, for the first time, to present a passport or other documents deemed sufficient to show identity and citizenship when entering the country from within the western hemisphere. It is not yet known what types of documents, other than passports, may be permitted at land POEs, or whether these documents and the equipment required to read them can be aligned with US-VISIT technologies. Until decisions for this and other initiatives are made, it remains unclear how this program will be integrated with US-VISIT, if at all—raising the possibility that CBP would be faced with managing differing technology platforms and border inspection processes at each land POE. Knowing how US-VISIT is to work in concert with other border security and homeland security initiatives and what facility or facility modifications might be needed could help Congress, DHS, and others better understand what resources and tools are needed to ensure success and ensure that land POE facilities are positioned to accommodate them.

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To help DHS optimize its investment in US-VISIT at land POEs, we are recommending that the Secretary of Homeland Security direct the US-VISIT Program Director, in collaboration with the Commissioner of CBP, to (1) improve existing controls for identifying and reporting computer processing and other operational problems to help ensure that these controls are consistently administered and (2) develop performance measures specifically for assessing the impact of US-VISIT operations at land POEs. Also, in view of the fact that DHS has not met the statutory requirement that it issue a report describing a comprehensive biometric entry and exit system for US-VISIT, we are also recommending that as DHS finalizes the mandated report, the Secretary of Homeland Security take steps to ensure that the report includes, among other things, information on the costs, benefits, and feasibility of deploying biometric and nonbiometric exit capabilities at land POEs; a discussion of how DHS intends to move from a nonbiometric exit capability, such as the technology currently being tested, to a reliable biometric exit capability that meets statutory requirements; and a description of how DHS plans to align US-VISIT with other emerging land border security initiatives and what facilities or facility modifications would be needed at land POEs to ensure that different technologies and processes work in harmony.

DHS generally agreed with our recommendations and stated that it either had begun to take or is planning to take actions to implement them. It acknowledged that the exit technology tested by DHS would not satisfy statutory requirements for a biometric exit system and said that it would perform research and industry outreach to satisfy the mandate. DHS, however, disagreed with our finding that the US-VISIT program office did not fully consider the impact of US-VISIT on the overall operations at POEs. It said that US-VISIT impacts are limited to changes in Form I-94 processing time, which according to officials improved, and that issues related to capacity, staffing, and other factors are “arguably” beyond the scope of US-VISIT. We agree that the approach taken to do operational assessments of the impact of US-VISIT land POE facilities focused on changes to I-94 processing time. Our concern is that the assessments did not examine other operational factors, such as US-VISIT’s impact on physical facilities, to help ensure that US-VISIT operates as intended. We believe more complete assessments of the impact of US-VISIT on land POE operations would better position DHS to anticipate potential problems and develop solutions, especially as additional US-VISIT capabilities, such as 10 fingerprint scanning, are introduced at these facilities.

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## Background

US-VISIT is a large, complex governmentwide program intended to achieve the goals of (1) enhancing the security of U.S. citizens and visitors, (2) facilitating legitimate travel and trade, (3) ensuring the integrity of the U.S. immigration system, and (4) protecting the privacy of visitors. The program is intended to carry out these goals by

- collecting, maintaining, and sharing information on certain foreign nationals who enter and exit the United States;
- identifying foreign nationals who (1) have overstayed or violated the terms of their visit; (2) can receive, extend, or adjust their immigration status; or (3) should be apprehended or detained by law enforcement officials;
- detecting fraudulent travel documents, verifying visitor identity, and determining visitor admissibility through the use of biometrics (digital fingerprints and a digital photograph); and
- facilitating information sharing and coordination within the immigration and border management community.

Currently, US-VISIT's scope includes the pre-entry, entry, status, and exit of hundreds of millions of foreign national travelers who enter and leave the United States at over 300 air, sea, and land POEs.

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## Legislative Overview

The current statutory framework for US-VISIT originates with a requirement to implement an integrated entry and exit data system for foreign nationals, enacted in the Immigration and Naturalization Service Data Management Improvement Act (DMIA) of 2000.<sup>11</sup> The DMIA replaced in its entirety a provision of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA) that had required an automated system to record and then match the departure of every foreign national from the United States to the individual's arrival record.<sup>12</sup> The DMIA instead required an electronic system that would provide access to and integrate foreign national arrival and departure data that are authorized or required to be created or collected under law and are in an electronic format in certain databases, such as those used at POEs and consular offices. Unlike the earlier law, the DMIA specifically provided that it not be interpreted to impose any new documentary or data collection requirements on any person, but it also provided that it not be construed to reduce or curtail

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<sup>11</sup>8 U.S.C. § 1365a.

<sup>12</sup>Pub. L. No. 104-208, div. C, § 110, 110 Stat. 3009-546, 3009-558-59.

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the authority of DHS or State under any other provision of law. Thus, the DMIA did not specifically require the collection of any new data on foreign nationals departing at land POEs.

The system as described in the DMIA is to compare available arrival records to available departure records; allow on-line search procedures to identify foreign nationals who may have overstayed their authorized period of admission; and use available data to produce a report of arriving and departing foreign nationals. The DMIA also required the implementation of the system at airports and seaports by December 31, 2003, at the 50 highest volume land POEs by December 31, 2004; and at all remaining POEs by December 31, 2005.

Laws passed after the DMIA also provided specific requirements with regard to the use of biometrics for those entering and leaving the country. For example, the USA PATRIOT Act required, by October 26, 2003, the development and certification of a technology standard, including appropriate biometric identifier standards, that can be used to verify the identity of persons applying for a U.S. visa, or seeking to enter the United States pursuant to a visa, for the purposes of conducting background checks, confirming identity, and ensuring that a person has not received a visa under a different name.<sup>13</sup> The act also provided that in developing US-VISIT, DHS and State were to focus particularly on the utilization of biometric technology and the development of tamper-resistant documents readable at POEs. The Enhanced Border Security and Visa Entry Reform Act of 2002 required DHS and State to implement, fund, and use the technology standard, including biometric identifier standards, developed under the USA PATRIOT Act at U.S. POEs; it also required the installation at all POEs of equipment and software to allow biometric comparison and authentication of all U.S. visas and other travel and entry documents issued to aliens, and passports issued by Visa Waiver Program participating countries with biometric identifiers. The Intelligence Reform and Terrorism Prevention Act of 2004,<sup>14</sup> unlike the DMIA, specifically required the collection of biometric exit data for all categories of individuals required to provide biometric entry data under US-VISIT, regardless of the port of entry where they entered the United States. The

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<sup>13</sup>8 U.S.C. § 1379. The official title of the USA PATRIOT Act is the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001.

<sup>14</sup>Pub. L. No. 108-458.

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2004 law did not set a deadline for implementation of this requirement, however. Appendix III discusses the legislative history of the US-VISIT program in greater detail.

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## Management and Implementation of US-VISIT

Within DHS, the US-VISIT Program Office is headed by the US-VISIT Director, who reports directly to the Deputy Secretary for Homeland Security. The US-VISIT Program Office has responsibility for managing the acquisition, deployment, operation, and sustainment of US-VISIT and has been delivering US-VISIT capability incrementally. According to US-VISIT, increments 1 and 2 include a mix of interim or temporary solutions and permanent deployments. For example, increment 1B, dealing with exit capability at airports, is still being piloted, while US-VISIT entry capability at the 50 busiest land POEs—increment 2B—is considered to be a permanent deployment. Increment 3—providing entry capability at the land POEs not covered under Increment 2B—is considered by US-VISIT to be a permanent deployment and increment 4 is, according to US-VISIT, the yet-to-be defined US-VISIT strategic capability. Table 1 summarizes the scope, timeline, and intended functionality of the US-VISIT increment schedule. This report focuses generally, but not exclusively, on increments 2B (entry capability at the 50 busiest land POEs), 2C (exit capability at the 50 busiest land POEs), and 3 (entry capability at the remaining land POEs)—the increments and information that are shown in bold in table 1.

**Table 1: Summary of the Scope, Schedule for Completion, and Intended Functionality of the US-VISIT Increment Schedule**

Increment	Scope	Schedule for completion	Intended functionality	
1	A	Entry at air and sea ports of entry	Jan. 5, 2004 <sup>a</sup>	Deliver the initial operational biometric entry capability to 115 air and 14 sea ports.
	B	Exit at air and sea ports of entry	Nov. 30, 2004	Evaluate exit pilot alternatives at 13 air and 2 seaports.
2	A	Read visas and other travel documents embedded with biometric information upon entry at all ports of entry	Oct. 26, 2006	Deliver the initial operating capability to compare and verify biometric data embedded in machine-readable visas and other travel documents at all ports of entry.
	<b>B</b>	<b>Entry at 50 busiest land ports of entry</b>	<b>Dec. 31, 2004<sup>b</sup></b>	<b>Provide biometric entry capability at the 50 busiest land ports of entry, including an automated process for issuing the I-94 entry and exit form.</b>
	<b>C</b>	<b>Exit and reentry at land ports of entry</b>	<b>Jul. 2005-undefined</b>	<b>Automate recording of exit and reentry at busiest 50 land ports of entry.</b>
3		<b>Remaining land ports of entry</b>	<b>Dec. 31, 2005<sup>b</sup></b>	<b>Provide increment 2B entry capability at remaining land ports.</b>
4		Undefined	Undefined	Define, design, build, and implement a strategic US-VISIT capability. <sup>c</sup>

Source: US-VISIT Program Office.

Note: Bold text reflects increments primarily focused on land POEs.

<sup>a</sup>The statutory deadline for implementing US-VISIT at air and sea ports of entry was December 31, 2003; the Federal Register notice announcing implementation of increment 1A by that date was published on January 5, 2004.

<sup>b</sup>Denotes a statutory deadline.

<sup>c</sup>According to US-VISIT program officials, increment 4 will likely consist of a further series of enhancements.

From fiscal year 2003 through fiscal year 2007, total funding for the US-VISIT program has been about \$1.7 billion. Table 2 summarizes appropriations for US-VISIT for fiscal years 2003 through 2007, as enacted.

**Table 2: US-VISIT Appropriations Enacted, Fiscal Years 2003 Through 2007 (in millions of dollars)**

Budget activity	2003 appropriated	2004 appropriated	2005 appropriated	2006 appropriated	2007 appropriated
US-VISIT	\$362	\$328	\$340	\$337	\$362

Source: US-VISIT Program Office.

Note: Starting in Fiscal Year 2004, funding for the US-VISIT program has been appropriated on a “no-year” basis, meaning that there is no time limit on the spending of appropriated funds; funds that remain unexpended at the end of a fiscal year are carried over into the next fiscal year.

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In prior reports on US-VISIT, we have identified numerous challenges that DHS faces in delivering program capabilities and benefits on time and within budget. In September 2003, we reported that the US-VISIT program is a risky endeavor, both because of the type of program it is (large, complex, and potentially costly) and because of the way that it was being managed.<sup>15</sup> We reported, for example, that the program's acquisition management process had not been established, and that US-VISIT lacked a governance structure. In March 2004, we testified that DHS faces a major challenge maintaining border security while still welcoming visitors. Preventing the entry of persons who pose a threat to the United States cannot be guaranteed, and the missed entry of just one can have severe consequences. Also, US-VISIT is to achieve the important law enforcement goal of identifying those who overstay or otherwise violate the terms of their visas. Complicating the achievement of these security and law enforcement goals are other key US-VISIT goals: facilitating trade and travel through POEs and providing for enforcement of U.S. privacy laws and regulations.<sup>16</sup> Subsequently, in May 2004, we reported that DHS had not employed the kind of rigorous and disciplined management controls typically associated with successful programs.<sup>17</sup> Moreover, in February 2006, we reported that while DHS had taken steps to implement most of the recommendations from our 2003 and 2004 reports, progress in critical areas had been slow.<sup>18</sup> Of 18 recommendations we made since 2003, only 2 had been fully implemented, 11 had been partially implemented, and 5 were in the process of being implemented, although the extent to which they would be fully carried out was not yet known.

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## US-VISIT Scope, Operations, and Processing at Land POEs

As mentioned earlier, US-VISIT currently applies to a certain group of foreign nationals—non-immigrants from countries whose residents are required to obtain nonimmigrant visas before entering the United States and residents of certain countries who are exempt from U.S. visa requirements when they apply for admission to the United States for up to

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<sup>15</sup>GAO, *Homeland Security: Risks Facing Key Border and Transportation Security Program Need to Be Addressed*, [GAO-03-1083](#) (Washington, D.C.: September 2003).

<sup>16</sup>GAO, *Homeland Security: Risks Facing Key Border and Transportation Security Program Need to Be Addressed*, [GAO-04-569T](#) (Washington, D.C.: March 2004).

<sup>17</sup>GAO, *Homeland Security: First Phase of Visitor and Immigration Status Program Operating, but Improvements Needed*, [GAO-04-586](#) (Washington, D.C.: May 2004).

<sup>18</sup>[GAO-06-296](#).

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90 days for tourism or business purposes under the Visa Waiver Program.<sup>19</sup> US-VISIT also applies to (1) Mexican nonimmigrants traveling with a Border Crossing Card (BCC) who wish to remain in the United States longer than 30 days or who declare that they intend to travel more than 25 miles into the country from the border (or more than 75 miles from the Arizona border in the Tucson area)<sup>20</sup> and (2) Canadians traveling to the United States for certain specialized reasons.<sup>21</sup>

Most land border crossers—including U.S. citizens, lawful permanent residents, and most Canadian and Mexican citizens—are, by regulation or statute, not required to enroll into US-VISIT.<sup>22</sup> In fiscal year 2004, for example, U.S. citizens and lawful permanent residents comprised about 57 percent of land border crossers; Canadian and Mexican citizens comprised

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<sup>19</sup>Certain holders of nonimmigrant visas, such as foreign diplomats and other representatives of foreign governments, and representatives of certain international organizations, are expressly exempted from US-VISIT requirements by regulation, as are individuals who are younger than 14 or older than 79 on the date of admission. 8 C.F.R. § 235.1(d)(1)(iv)(A), (B).

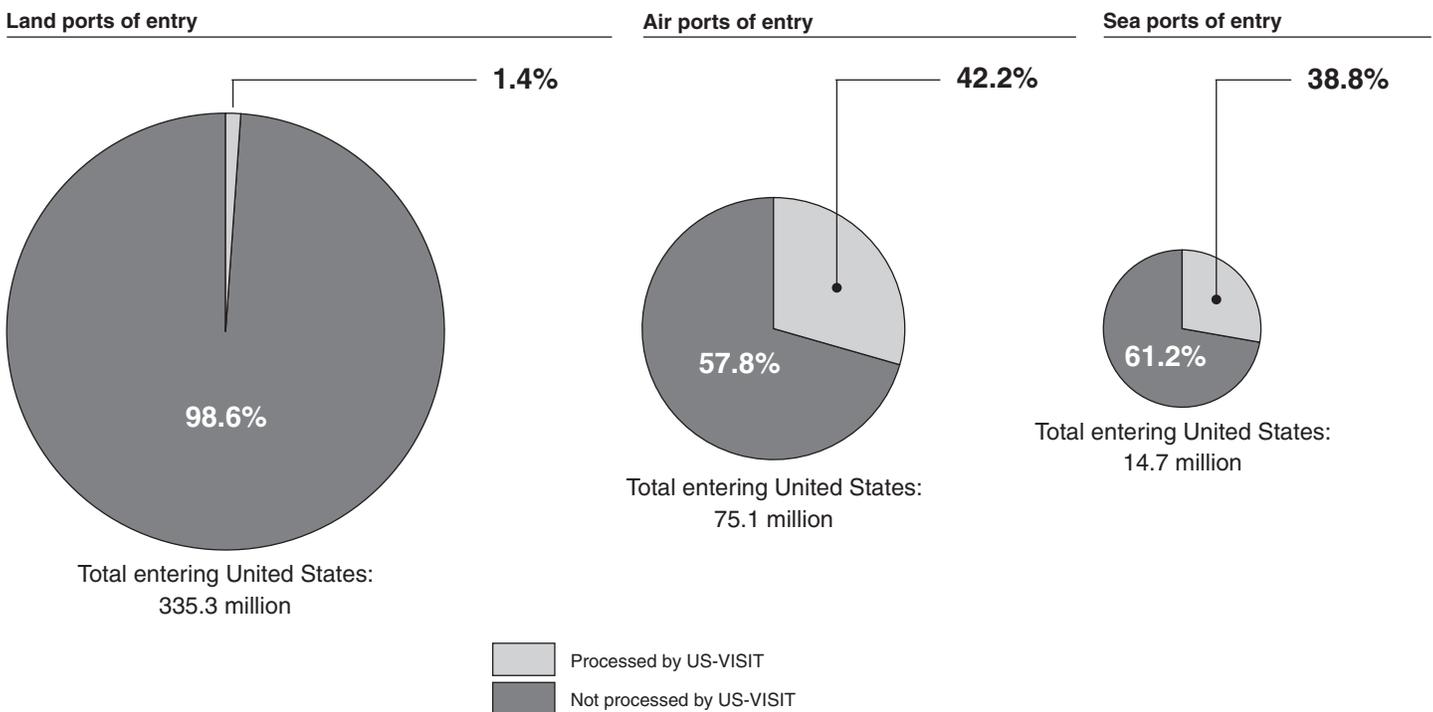
<sup>20</sup>Under 8 C.F.R. § 235.1(d)(1)(iv)(C), DHS and the State Department may jointly exempt a class of aliens from US-VISIT requirements. On August 31, 2004, DHS announced in the *Federal Register* that the two agencies had determined that US-VISIT requirements generally would apply only to Mexican nationals for whom a Form I-94 is issued under 8 C.F.R. § 235.1(f)(1)(iii) or (v). This means that Mexican nationals using a BCC who are admitted for no more than 30 days to visit within 25 miles of the border (or to visit within 75 miles of the Arizona border, if entering through certain POEs in Arizona) generally are not subject to US-VISIT requirements. 69 Fed. Reg. 53,318, 53,323 (2004). The CBP officer determines the intent of an applicant for admission through the inspection process at a port of entry, in which the applicant must establish that he or she is entitled to enter the United States under all applicable laws and regulations. 8 C.F.R. § 235.1(d)(1). If a Mexican BCC holder is admitted to the United States without an I-94, the terms of that individual's admission to the country are the 30 day/25 mile or 75 mile limits, and violation of those terms makes the individual removable from the country and possibly inadmissible in the future. 8 U.S.C. §§ 1227(a)(1), 1182(a)(6), (9).

<sup>21</sup>These special cases include Canadians who are engaged to American citizens, and Canadians who are traveling for the purpose of making major financial investments in the United States.

<sup>22</sup>Since the statute governing US-VISIT applies to foreign national arrival and departure data only, U.S. citizens do not fall within the scope of the program and therefore are exempt from US-VISIT screening. Also, in general, regardless of whether they are to be processed into US-VISIT, Mexican citizens must present either a passport and visa or a BCC when seeking admission to the United States, while Canadian citizens generally do not need such documents. According to US-VISIT, when Mexicans receive a BCC, the data on the individual entered into U.S. databases at the time of their visa application are accessible by US-VISIT—if they are to be processed into it for any reason.

about 41 percent; and less than 2 percent were US-VISIT enrollees. Figure 1 shows the number and percent of persons processed under US-VISIT as a percentage of all border crossings at land, air, and sea POEs in fiscal year 2004.

**Figure 1: Persons Processed under US-VISIT as a Percentage of all Border Crossings at Land, Air, and Sea Ports of Entry, Fiscal Year 2004**



Source: GAO analysts of DHS data.

Note: Persons processed by US-VISIT may include foreign nationals who were also issued an I-94 valid for multiple entries and who have re-entered multiple times. Total entering the U.S. includes U.S. citizens who may have re-entered the country multiple times and foreign nationals, including those not issued I-94s, such as Canadian citizens and Mexicans with BCCs, and those issued multiple entry I-94s who also may have re-entered multiple times. U.S. citizens do not fall within the statutory scope of US-VISIT and therefore are exempt from US-VISIT screening.

Foreign nationals covered by US-VISIT enter the United States via a multi-step process. For individuals required to obtain visas before entering the United States, the US-VISIT process begins overseas at U.S. consular offices, which in addition to other processes, collect biographic data (i.e., country of origin and date of birth) and biometric data (i.e., digital fingerprints and a digital photograph) from the applicant. These data are checked against databases or watch lists of known criminals and suspected terrorists. If the individual's name does not appear on any watch

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list and the individual is not disqualified on the basis of other issues that may be relevant, he or she is to be issued a visa and may seek admission to the United States at a POE.

When visitors in vehicles first arrive at a land POE, they initially enter the primary inspection area where CBP officers, often located in booths, are to visually inspect travel documents and query the visitors about such matters as their place of birth and proposed destination. Visitors arriving as pedestrians enter an equivalent primary inspection area, generally inside a CBP building. If the CBP officer believes a more detailed inspection is needed or if the visitors are required to be processed under US-VISIT for the first time,<sup>23</sup> the visitors are to be referred to the secondary inspection area—an area away from the primary inspection area—which is generally inside a facility. The secondary inspection area inside the facility generally contains office space, waiting areas, and space to process visitors, including US-VISIT enrollees. Equipment used for US-VISIT processing includes a computer, printer, digital camera, and a two-fingerprint scanner. Figure 2 shows US-VISIT equipment installed at one land POE.

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<sup>23</sup>At land border POEs, the I-94 issued to foreign nationals covered by US-VISIT who are deemed admissible is considered issued for multiple entries, unless specifically annotated otherwise. A multiple entry I-94 permits them to reenter the country, generally for up to 6 months, without additional US-VISIT processing during the period covered by the I-94.

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**Figure 2: US-VISIT Equipment (computer, camera, and printer) at a Land POE Secondary Inspection Area**



Source: US-VISIT Program Office.

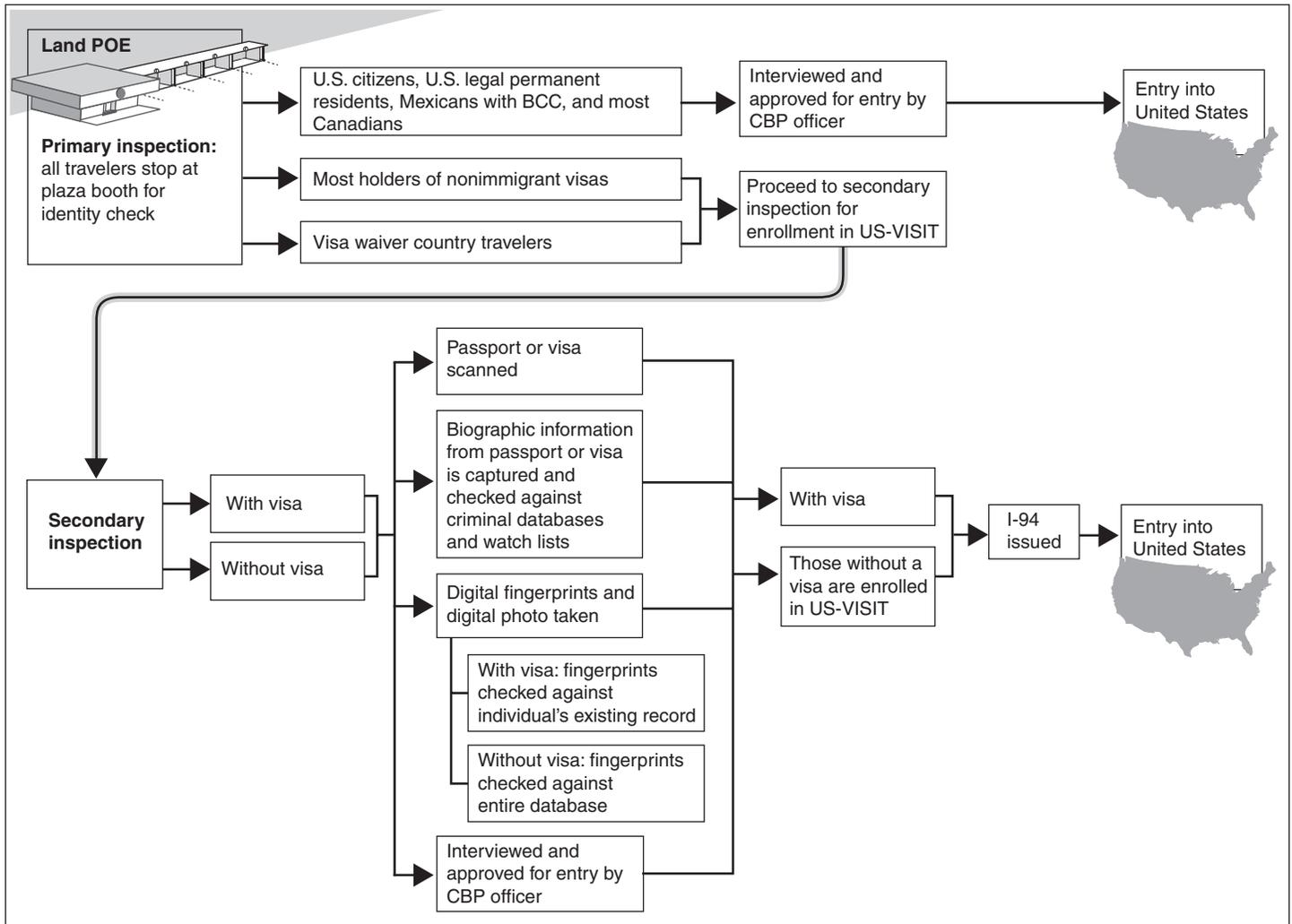
CBP officers use a document reader to scan machine readable travel documents, such as a passport or visa, and use computers to check biographic data from the documents against watch list databases. For US-VISIT processing, biometric verification is performed in part by taking a digital scan of visitors' fingerprints (the left and right index fingers) and by taking a digital photograph of the visitor. These data are stored in the system's databases. The computer system compares the two index

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fingerprints to those stored in DHS's Automated Biometric Identification System (IDENT) that, among other things, collects and stores biometric data about foreign nationals, including FBI information on all known and suspected terrorists.

If the fingerprints are already in IDENT, the system performs a match against the existing digital scans to confirm that the person submitting the fingerprints at secondary inspection at the POE is the one on file. In addition, the CBP officer visually compares the person to the photograph that is in the database, which is brought up onto the computer screen. If no prints are found in IDENT (for example, if the visitor is from a visa-waiver country), that person is then processed into US-VISIT, with biographic data entered into the databases, a digital scan of his or her two index fingerprints, and a digital photograph. Once the CBP officer deems the visitor to be admissible, the individual is issued an I-94 or an I-94W (for persons from visa waiver countries) arrival/departure form. Figure 3 shows how U.S. citizens and most Mexicans, Canadians, and foreign nationals subject to US-VISIT are to be processed at land POEs.

**Figure 3: Overview of US-VISIT Enrollment at Land POEs for Visitors with and without Visas Entering the Country for the First Time**



Sources: GAO (analysis), MapArt (map).

Note: Most Mexican entrants with BCCs are not required to obtain an I-94 arrival/departure form if CBP officers determine that the entrants do not intend to travel more than 25 miles into the country or stay more than 30 days. If it is determined by the CBP officer that a Mexican citizen intends to exceed either limit, the entrant is referred to secondary inspection at the POE, where they are to be processed into US-VISIT, and issued an I-94 form, if no grounds are found on which to deny them entry. According to federal regulation (8 CFR § 235.1(f)(1)(v)(A)), in the Tucson sector, Mexican visitors may travel up to 75 miles into the country without being issued an I-94 form, which means that they generally would not be processed into US-VISIT upon entry.

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In addition to IDENT, US-VISIT relies on a number of information systems to process visitors. Among the computer software applications utilized as part of US-VISIT is U.S. Arrival, which provides an integrated process for issuing I-94 forms and collection of biometric data for visitors covered by US-VISIT who arrive at land POEs. Another is U.S. Pedestrian, which is used by CBP officers in conducting inspections of visitors who arrive at land POEs, entering the United States on foot, mostly along the southern border.

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## Overview of Land POE Facilities

As of August 2006, there were 170 land POEs that are geographically dispersed along the nation's more than 7,500 miles of borders with Canada and Mexico. Some are located in rural areas (such as Alexandria Bay, New York and Blaine-Pacific Highway, Washington) and others in cities (such as Detroit) or in U.S. cities across from Mexican cities, such as Laredo and El Paso, Texas. The volume of visitor traffic at these POEs varies widely, with the busiest four POEs characterized by CBP as San Ysidro, Calexico, and Otay Mesa, California, and Bridge of the Americas in El Paso, Texas. Appendix IV lists the 20 busiest land POEs, based on the number of individuals in vehicles and pedestrian traffic recorded entering the country through POEs in fiscal year 2005.

From a facilities standpoint, land POEs vary substantially in building type and size (square footage) as shown in Figures 4a, 4b, and 4c.

**Figure 4a: Land POE at Blaine-Peace Arch in Blaine, Washington**



Source: US-VISIT Program Office.

**Figure 4b: Land POE Facility at the Detroit-Windsor Tunnel in Detroit, Michigan**



Source: GAO.

**Figure 4c: Land POE Facility at Rouses Point, New York**



Source: GAO.

## **DHS Has Installed US-VISIT Biometric Entry Capability at Nearly All Land POEs, but Faces Challenges Identifying and Monitoring the Operational Impacts on POE Facilities**

DHS has installed US-VISIT biometric entry capability at nearly all land POEs consistent with statutory deadlines, but faces challenges identifying and monitoring the operational impacts on POE facilities. CBP officials at the 21 land POEs we visited told us that US-VISIT has generally enhanced the officials' ability to process visitors subject to US-VISIT by providing officials the ability to do biometric checks and automating the issuance of the visitor I-94 arrival/departure form. DHS plans to introduce changes and enhancements to US-VISIT at land POEs intended to bolster border security, but deploying them poses potential operational challenges to land POE facilities that are known by DHS to be space-constrained. US-VISIT's efforts to evaluate the impact of US-VISIT on land POE facilities thus far raises questions about whether sufficient management controls exist to ensure that additional operational impacts, such as processing delays or further space constraints, will be anticipated, identified, and appropriately addressed and resolved.

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## US-VISIT Biometric Entry Capability Was Installed at Nearly All Land POEs with Minimal Construction, According to Program Officials

In December 2005, DHS officials announced that US-VISIT biometric entry capability had been installed at land POEs in conformance with statutory mandates and Increments 2B and 3 of DHS's US-VISIT schedule. Deployment at the 50 busiest land POEs was completed by December 31, 2004, and at all but 2 of the other land POEs where DHS determined the program should operate by December 31, 2005, as required by law. Our review of US-VISIT records and discussions with US-VISIT program officials indicated that DHS installed US-VISIT biometric entry capability at 154 of 170 land POEs. (App. V lists all land POEs where US-VISIT has been installed.) With regard to 14 of the 16 POEs where US-VISIT was not installed, CBP and US-VISIT program office officials told us there was no operational need for US-VISIT because visitors who are required to be processed into US-VISIT are, by regulation, not authorized to enter the United States at these locations.<sup>24</sup> Generally, these POEs are small facilities in remote areas. At 2 other POEs, US-VISIT needs to be installed in order to achieve full implementation as required by law, but both of these present significant challenges to installation of US-VISIT. These POEs do not currently have access to appropriate communication transmission lines to operate US-VISIT. CBP officials told us that, given this constraint, they determined that they could continue to operate as before. Thus, CBP officers at these locations process foreign visitors manually.

US-VISIT program officials reported and available records showed that equipment for US-VISIT entry capability was installed with minimal construction at the 154 land POEs. At the 21 land POEs we visited, we observed that US-VISIT entry capability equipment had been installed with little or no change to facilities. For example, at the Detroit-Windsor tunnel and the Detroit Ambassador Bridge POEs in Detroit, Michigan, officials confirmed that no additional computer workstations were required to be installed; at the Blaine-Peace Arch POE at Blaine, Washington, electrical capacity was upgraded to accommodate US-VISIT computer needs. In general, our review of reports prepared for each of these POEs indicated that DHS upgraded existing or added new computer workstations and printers in the secondary inspections areas of these facilities (the area where US-VISIT enrollees are processed); installed digital cameras to photograph those to be processed in US-VISIT; installed two-fingerprint

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<sup>24</sup>According to CBP, these ports are classified as Class B ports. Under 8 C.F.R. §100.4(c)(2), only citizens of the United States, Canada, and Bermuda, and Lawful Permanent Residents of the United States and certain holders of border crossing cards may enter through Class B ports. Other foreign nationals are allowed to enter the United States only at Class A ports.

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scanners that digitally record fingerprints; and installed electronic card readers for detecting data embedded in machine-readable passports and visas. According to US-VISIT officials, funding for installing US-VISIT entry equipment nationwide was approximately \$16 million—about 9 percent of the \$182 million budgeted for US-VISIT deployment at land ports between fiscal year 2003 and fiscal year 2005. Officials reported that the remaining funds were allocated to computer network infrastructure (about 72 percent) and design and development, network engineering, fingerscan devices, and public awareness and outreach (about 19 percent).<sup>25</sup>

During our site visits, CBP officials at all 21 facilities told us that having US-VISIT biometric entry capability generally improved their ability to process visitors required to enroll in US-VISIT because it provided them additional assurance that visitors are who they say they are and automated the paperwork associated with processing the I-94 arrival/departure form. For example, with US-VISIT, the ability to scan a visitor's passport or other travel document enables the computer at the inspection site to capture basic biographic information and automatically print it on the I-94 form; prior to US-VISIT deployment, the I-94 was filled in manually by the CBP officer or the visitor.

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**Steps Have Been Taken to Address Operational Challenges Identified at Land POEs, but DHS May Face Additional Challenges Resulting from Planned Enhancements**

DHS plans to introduce changes and enhancements to US-VISIT at land POEs that are designed to further bolster CBP's ability to verify that individuals attempting to enter the country are who they say they are. While these changes may further aid border security, deploying them poses potential challenges to land POE facilities where US-VISIT operates and where millions of visitors are processed annually. Our site visits, interviews with US-VISIT and CBP officials, and the work of others suggest that both before and after US-VISIT entry capability was installed at land POEs, these facilities faced a number of challenges—operational and physical—including space constraints complicated by the logistics of processing high volumes of visitors and associated traffic congestion.

With respect to operational challenges at land POE facilities, we reported in November 2002—more than 2 years before US-VISIT entry capability was installed at the 50 busiest land POEs—that busy land POEs were experiencing 2- to 3-hour delays in processing visitors and that any

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<sup>25</sup>According to US-VISIT officials, as of March 2006 about \$179.5 million of the total \$182 million budget had been obligated.

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lengthening of the entry process could affect visitors significantly, through additional wait times.<sup>26</sup> While we cannot generalize about the impact US-VISIT has had on processing time at all land POEs, at one of the busiest land POEs we visited—San Ysidro, California, where more than 41 million visitors entering the country in 2005 were processed—CBP officials told us that, although they had not measured differences in processing times before and after US-VISIT was installed, the steps required to process US-VISIT visitors had added to the total time needed to process all visitors entering through the port. As a result, CBP officials told us that they must occasionally direct visitors arriving at peak times, such as holidays, to leave and return later in the day because there was no room for them to wait. In this case, US-VISIT had an effect on both visitor processing times and on the capacity of the facility to physically accommodate pedestrian and vehicular traffic.<sup>27</sup>

A similar type of operational problem that reflects how complex visitor processing activities occur at facilities was reported by a contractor retained by DHS to study wait times associated with the I-94 issuance process at another busy POE, Nogales-DeConcini in Arizona.<sup>28</sup> The study, which examined wait times for 3 separate time periods over a 3-month period in the summer of 2005, found that wait times varied by day (ranging from about 3½ minutes to almost 7 minutes across the time periods studied) and was more a function of the number of people waiting for an I-

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<sup>26</sup>GAO, *Technology Assessment: Using Biometrics for Border Security*, GAO-03-174 (Washington, D.C.: Nov. 15, 2002).

<sup>27</sup>According to US-VISIT Program Office officials, prior to deployment of US-VISIT entry capability, San Ysidro had its own system that was specifically designed for the POE to minimize manual I-94 processing and help officers speed up the I-94 issuance process. However, according to these officials, although San Ysidro's system was "probably" faster than US-VISIT, it did not meet current US-VISIT standards for data protection, integration, and privacy and did not require officers to do the same database checks that are part of US-VISIT. The officials noted that US-VISIT enhances security because it is designed to access multiple databases nationwide and brings uniformity to the I-94 issuance process across POEs.

<sup>28</sup>Center for Transportation Research, the University of Texas at Austin, *Assessing the Effects of US-VISIT RFID Technology Implementation on Vehicle and Pedestrian Crossing Times at DeConcini, Nogales, Ariz. Report No. 2 Pilot Data Collection and Analysis to Baseline Data* (Austin, Tex., November 2005). The project was performed under contract for the DHS Private Sector Office. The report examines processing times at primary inspection for privately owned vehicles (POV) and pedestrians and also processing times for visitors who require enrollment in US-VISIT with a focus on the introduction of Radio Frequency Identification (RFID) technology at the POE, which is discussed later in this report.

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94 rather than the time needed to process each individual under US-VISIT.<sup>29</sup> The contractor noted that the group size, wait time, and processing all affected the dynamics of the secondary-processing area or room, which measured approximately 40 feet by 50 feet. During one day of the study, the contractor noted that the secondary processing room became crowded, straining processing capacity. The contractor stated that this occurred because some of the individuals waiting to obtain I-94s were students or seasonal workers that required checks that included phone calls to verify their visa status.<sup>30</sup> The contractor concluded that US-VISIT provided an advantage over manual I-94 processing because the processing was ultimately more efficient. Nevertheless, the extent to which these problems occur is unknown because US-VISIT has not performed comparable studies at other locations.

DHS has long been aware of space constraints and other capacity issues at land POE facilities. A task force report developed in response to the Immigration and Naturalization Service Data Management Improvement Act of 2000 found that 117 of 166 land POEs operating at that time (about 70 percent) had three-fourths or less of the required space.<sup>31</sup> The US-VISIT Program Office subsequently confirmed that land POEs had traffic flow problems (i.e., lack of space, insufficient roadways, and poor access to facilities) and that many were aging and undersized; the majority of land POEs were constructed before 1970 when the volume of border crossings was not as great as it is now. Our work for this report indicates that such problems persist, though we cannot generalize to all facilities. For example, at the Nogales-Morley Gate POE in Arizona, where up to 6,000 visitors are processed daily (and up to 10,000 on holidays), US-VISIT equipment was installed, but the system is not used there because CBP determined that it could not accommodate US-VISIT visitors because of concerns about CBP's ability to carry out the process in a constrained space while thousands of other people not subject to US-VISIT processing

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<sup>29</sup>The average wait times were reported by the US-VISIT contractor for the periods of June 20 through 25, 2005, and August 15 through 20, 2005. No results were reported for the third period from July 7 through 8, 2005.

<sup>30</sup> According to CBP, CBP officers determine what checks are needed to determine admissibility depending on the purpose of travel.

<sup>31</sup>DMIA Task Force, DMIA Task Force First Annual Report to Congress, Dec. 2002.

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already transit through the facility daily.<sup>32</sup> Thus, if a visitor is to be processed into US-VISIT from Morley Gate, that person is directed to return to Mexico (a few feet away) and to walk the approximately 100 yards to the Nogales-DeConcini POE facility, which has the capability to handle secondary inspections of this kind. Figure 5 shows the Nogales-Morley Gate POE building—the small windowed structure on the right is the processing site.

**Figure 5: Nogales-Morley Gate POE, Arizona**



Source: US-VISIT Program Office.

CBP officials at three other land POEs on the southwest border also told us that space constraints were a factor in their ability to efficiently process those subject to US-VISIT. Specifically, at the POEs at Los Tomates, Gateway, and Brownsville/Matamoros, Texas, CBP officials told us that

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<sup>32</sup>CBP based this decision on the high volume of pedestrians entering the United States through the Morley Gate POE; the fact that, before deployment, I-94s had not been previously issued at the Morley Gate POE; and the close proximity of the Morley Gate POE facility to the nearby DeConcini POE facility, about 100 yards away.

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US-VISIT had made I-94 processing more efficient, but travelers continued to experience delays of up to 2 hours on peak holiday weekends as they had before US-VISIT was installed. Officials at these facilities told us that they believe they could alleviate this problem if the facility had the space to install more workstations capable of operating US-VISIT entry capability.

According to CBP officials, CBP has begun to examine the condition of each facility with the intent of developing a list of border station construction and modification needs and plans to prioritize construction projects based on need. In the meantime, CBP and US-VISIT officials told us that they have taken steps to address problems operating US-VISIT when space constraints are an issue. For example, at the POE in Highgate Springs, Vermont, CBP officials told us that US-VISIT computers and those needed to process commercial truck drivers and their cargoes were competing for space at the interior counter area of the building. Following our visit, we were told that the POE had adjusted its space allocation inside the POE building so that there are now five workstations for US-VISIT and other noncommercial visitor processing, one of which can do both. According to the POE assistant area port director, the POE also extended the hours during which truck drivers can be processed in a separate building designed entirely for processing them and their cargoes, in order to relieve the space pressures in the main building that occur during the high-volume tourist summer season.

US-VISIT and CBP officials reported that they have taken other steps to try to minimize any problems that may arise integrating US-VISIT entry capability operations with other CBP operations. For example, to help ensure that US-VISIT does not have an adverse impact on CBP's operations at ports of entry, US-VISIT and CBP established a liaison office in June 2005, involving supervisory managers detailed from various CBP offices. The liaison officers worked with US-VISIT staff to overcome operational issues at POEs; review plans; develop and deliver training; set up call sites during busy holiday periods to provide support to POEs needing assistance; and work through technology problems. A CBP official told us that he believes both US-VISIT and CBP have been successful in helping land POEs overcome problems as they arise (such as those that might occur operating new technology at space constrained facilities). The CBP officers detailed to the liaison office have since returned to their original duty stations. According to CBP officials, CBP has an open invitation to re-initiate the liaison office at any time.

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While past challenges with facilities are well known to US-VISIT and CBP officials and efforts have been made to address them, it is not clear whether US-VISIT or CBP is prepared to anticipate additional facilities challenges—challenges already acknowledged by senior US-VISIT officials—that may arise as new US-VISIT capabilities are added. The following two key initiatives, in particular, could affect operations at land POEs:

- **10-fingerprint scanning of US-VISIT enrollees.** DHS plans to require that individuals subject to US-VISIT undergo a 10-fingerprint scan, in place of the current 2, to ensure the highest levels of accuracy in identifying people entering and exiting the country. Under this plan, US-VISIT visitors would be required to have all fingerprints scanned the first time they enroll in US-VISIT and to submit a 2-fingerprint scan during subsequent visits. A cost/benefit analysis of this capability is under way by DHS, selected components, and other agencies, with an anticipated transition period (from the 2- to 10-fingerprint scan requirement) taking place later this year and next. In January 2006, the former Director of US-VISIT testified before the Senate Appropriations Subcommittee on Homeland Security that in order to introduce a 10-fingerprint scan capability at land POEs and other locations, DHS would need a 6-to-8-month period to develop the capability and additional time to introduce initial operating capability. The former Director testified that unresolved technical challenges create the potential for a significant increase in the length of time needed to process individuals subject to US-VISIT at POEs once the 10-fingerprint requirement is in place.<sup>33</sup> In commenting on this report, DHS noted that US-VISIT has been working with industry to speed up processing time and reduce the size of 10-print capture devices to “eliminate or significantly reduce the impact of deploying 10-print scanning.” As noted earlier, our past work has shown that any lengthening in the process of entering the United States at the busiest POEs could inconvenience travelers and result in fewer visits to the United States or lost business to the nation.<sup>34</sup>

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<sup>33</sup>According to this official, there are at least four major unsolved technological challenges to 10-fingerprint scanning, including: no current fingerprinting device on the market that can take and process 10 prints as quickly as 2; no current device to capture 10 prints from the visitor as physically easy as with 2; no current devices meet operational processing requirements for ports of entry, embassies, or consulates; and the need to manufacture sufficient quantities of scanners to respond to the initiative.

<sup>34</sup>See [GAO-03-171](#).

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- **Electronic passport readers for Visa Waiver Program travelers.** All Visa Waiver Program travelers with passports issued after October 26, 2005 must have passports that contain a digital photograph printed in the document; passports issued to visa waiver travelers after October 26, 2006 must have integrated circuit chips, known as electronic passports, which are also called “e-passports.” (The Visa Waiver Program allows travelers from certain countries to gain entry to the United States without a visa.) These e-passports are to contain biographic and biometric information that can be read by an e-passport reader or scanner, a device which electronically reads or scans the information embedded in the e-passport at close proximity, about 4 inches to the reader. According to DHS, all POEs must have the ability to compare and authenticate e-passports as well as visas and other travel and entry documents issued to foreign nationals by DHS and the Department of State. Earlier this year, DHS announced it had successfully tested e-passports and e-passport scanners. A US-VISIT Program Office official told us that deployment of these scanners is moving toward implementation at POEs located at 34 selected international airports where about 97 percent of the Visa Waiver Program travelers enter the country. The official said that e-passport readers will not initially be installed at land POEs—which process a small percentage of visa waiver travelers—and there is no timeline for deploying the scanners at land POEs, although there are plans to do so at some point. CBP’s Director of Automated Programs in the Office of Field Operations told us that e-passport readers and the database used to process e-passport information do not operate as fast as current processes at land POEs and thus could cause additional delays, especially at POEs experiencing processing backlogs and wait times, such as San Ysidro, California, and Nogales-Mariposa, Arizona.

Given the potential impact that enhancements to US-VISIT could have both on visitor processing overall and on land POE facilities, it is important for US-VISIT and CBP to be able to gauge how new changes associated with US-VISIT may affect operations. However, our past work showed that US-VISIT had not taken all needed steps to help ensure that US-VISIT entry capability operates as intended because the approaches used to gauge or anticipate the impact of US-VISIT operations on land POE facilities was limited. Specifically, in 2005, in an effort to evaluate the impact of US-VISIT on the busiest land POEs, DHS completed evaluations of the time needed to process and issue the I-94 arrival/departure form at 5 POEs. To conduct its study, DHS studied the I-94 process before and after US-VISIT was installed at five land POEs at three locations (Port Huron, Michigan; Douglas, Arizona; and Laredo, Texas). Based on data collected from these 5 POEs, US-VISIT officials concluded that no additional staff or

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facility modifications were needed at other POEs in order to accommodate US-VISIT. We reported in February 2006 that the scope of this evaluation was too limited to determine potential operational impacts on POEs.<sup>35</sup> We reported three limitations, in particular: (1) that the evaluations did not take into account the impact of US-VISIT on workforce requirements or facility needs because the evaluations focused solely on I-94 processing time; (2) that the locations selected were chosen in part because they already had sufficient staff to support a US-VISIT pilot-test; and (3) that US-VISIT officials did not base their evaluation of I-94 processing times on a constant basis before and after deployment of US-VISIT—that is, pre-deployment sites used fewer computer workstations to process travelers than did sites studied after deployment. We recommended that DHS explore alternative means to obtaining a full understanding of the impact of US-VISIT on land POEs, including its impact on workforce levels and facilities and that POE sites be surveyed that had not been included in their original assessment. US-VISIT responded that wait times at land POEs were already known and that it would conduct operational assessments at POEs as new projects came online. However, apart from a study conducted at one POE facility by a DHS contractor in August 2005 (cited above), US-VISIT has not provided documentation on any additional evaluations conducted that would provide additional insights about the effect of US-VISIT on land POE operations, including wait times.

We recognize that it may not be cost-effective for US-VISIT or CBP to conduct a formal assessment of the impact US-VISIT has on each land POE now that the entry capability has been installed or of all facilities once new enhancements are introduced. Nevertheless, the assessment methodology US-VISIT has used in the past—which focused on measuring changes in I-94 processing times—raises questions about how the agency will assess the impact that the transition from 2- to 10-fingerprint scanning may have on land POE operations. That is, if US-VISIT uses the same methodology and focuses on the changes in processing time, rather than on the overall impact on operations, including facilities, staffing, and support logistics, the results will have the same limitations we highlighted in our earlier study. Our February 2006 recommendation would also be applicable to enhancements that have the potential to negatively affect operations.

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<sup>35</sup> [GAO-06-296](#).

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## Management Controls Did Not Always Alert US-VISIT and CBP to Operational Problems

US-VISIT and CBP have management controls in place to alert them to operational problems as they occur, but these controls did not always work to ensure that US-VISIT operates as intended. Specifically, US-VISIT and CBP officials had not been made aware of computer processing problems that affected operations, in particular, until we brought them to their attention, partly because these problems were not always reported. These computer processing problems have the potential to not only inconvenience travelers because of the increased time needed to complete the inspection process, but to compromise security, particularly if CBP officers are unable to perform biometric checks—one of the critical reasons US-VISIT was installed at POEs.

Our standards for internal control in the federal government state that it is important for agencies to provide reasonable assurance that they can achieve effective and efficient operations.<sup>36</sup> This includes establishing and maintaining a control environment that sets a positive and supportive attitude toward control activities that are designed to help ensure that management's directives are carried out. Control activities include reviewing and monitoring agency operations at the functional level (i.e., at land POEs) to compare operational performance with planned or expected results and to ensure that controls described in policies and procedures are actually applied and applied properly, and having relevant, reliable, and timely communications to ensure that information flows down, across, and up the organization thereby helping program managers carry out their responsibilities and providing assurance that timely action is taken on implementation problems or information that requires follow-up.

Our site visit interviews suggest that current monitoring and control activities were not sufficient to ensure that US-VISIT performs in accordance with its security mission and objectives. For example, at 12 of the 21 land POEs we visited, computer-processing problems arose that, according to CBP officials at those locations, had an impact on processing times and traveler delays. Generally, officials at these 12 sites said that computer problems occurred with varying frequency and duration; some said that computers were at times slow or froze up during certain times of the day, while others said that problems were sporadic and they could not

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<sup>36</sup> [GAO/AIMD-00-21.3.1](#) and [GAO-01-1008G](#).

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ascribe them to a particular time of the day.<sup>37</sup> None of the officials we interviewed had formally assessed the impact of computer slowdowns or freezes on visitors and visitor wait times, but nonetheless cited computer problems as a cause of visitor delays. In November 2005, we notified a US-VISIT program official in headquarters that we had heard about computer processing problems at some of the POEs we had visited. The official told us that US-VISIT had not been aware of these problems and said that, as a result of our work, CBP had been contacted to investigate the problem. In June 2006, a CBP official responsible for information technology at CBP's data center told us that POEs had experienced slowdowns associated with certain US-VISIT data queries.<sup>38</sup> The CBP official told us that since the computer processing problems were identified and resolved, performance had greatly improved. We did not verify whether the actions taken fully resolved these problems.

Others have also reported computer processing problems associated with US-VISIT. Our review of the report prepared by the contractor hired by DHS to study wait times at the POE in Nogales-DeConcini, Arizona (discussed earlier) confirmed that slowdowns had occurred at the facility during two of the periods covered by its study (June 2005 to August 2005).<sup>39</sup> According to the contractor, these slowdowns resulted in CBP

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<sup>37</sup>Our review of CBP's information technology "help desk" tickets from July 2005 through January 2006 suggested that similar types of problems occurred at other locations where US-VISIT was installed. CBP officers that operate US-VISIT in the field are instructed to call the CBP help desk at the Newington Data Center in Virginia if they encounter problems operating US-VISIT related software or equipment.

<sup>38</sup>CBP officials also dealt with sporadic network outages. In one case, on December 2, 2005, the entire network went down for 3 hours because of an accident. According to port officials, visitors seeking entry into the country at the San Ysidro, California, POE were initially asked to wait until the systems came back up or return at another time. About an hour after the outage began, CBP officers began to manually process I-94s for US-VISIT, in accordance with CBP standard operating procedures, but without the benefit of a biometric verification of their identity under US-VISIT.

<sup>39</sup>Center for Transportation Research, the University of Texas at Austin. *Assessing the Effects of US-VISIT RFID Technology Implementation on Vehicle and Pedestrian Crossing Times at DeConcini, Nogales, Ariz. Report No. 2 Pilot Data Collection and Analysis to Baseline Data* (Austin, Texas: November 2005).

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officers having to revert to manual I-94 processing without the benefit of US-VISIT biometric checks. Specifically, in its reports, the contractor noted that:

“...on the morning of Thursday, June 23, the computer systems used to perform secondary inspections became very slow, impacting the issuance of I-94 and enrollment in US-VISIT. The staff had to revert to using the paper I-94s, which visitors had to fill out by hand...”

“As happened during the [prior] study, the computer systems were unavailable for a period of time. This occurred on Tuesday from 1:00 to 2:00 p.m. Port officials decided to revert to the manual process because the network had become very slow and the queue was growing. CBP officers told ... researchers that it was taking up to twenty minutes to receive responses to queries...”

In an undated memorandum commenting on the contractor’s report, US-VISIT’s Director of Mission Operations expressed concern about the contractor’s discussion of computer “downtime” as a factor impacting US-VISIT processing times. He stated that these problems can be caused by a variety of factors, including factors related to I-94 processing and that capturing biometric information “is only rarely responsible for the inability to complete the process.” Based on our work, it is unclear what analysis US-VISIT had done to make this determination.

US-VISIT officials told us that various controls are in place to alert them to problems as they occur, but the lack of awareness about computer-processing problems raises questions about whether these controls are working as intended. US-VISIT officials told us that it is their position that once US-VISIT entry capability equipment was installed and operating, CBP became responsible for identifying problems and notifying US-VISIT when US-VISIT-related problems occurred so that US-VISIT can work with CBP to resolve them. The officials stated that computer problems can be attributable to other processes and systems not related to US-VISIT which are not the US-VISIT Program Office’s responsibility. In addition, the Acting Director of US-VISIT noted that there are mechanisms in place to help CBP and US-VISIT identify problems. For example, US-VISIT officials told us that US-VISIT and CBP headquarters officials meet regularly to discuss issues associated with US-VISIT implementation and CBP maintains a help desk at its Virginia data center to resolve technology problems raised by CBP field officials. Regarding the latter, the Acting Director noted that if POE officials do not report problems, there is nothing CBP and US-VISIT can do to resolve them. During our review, we noted that CBP officers are required—in training and as part of standard

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operating procedures—to report problems with US-VISIT technology to the CBP help desk. Nevertheless, CBP officials at 9 of the 12 sites we visited where computer processing problems were identified said they did not always use the help desk to report or resolve computer problems (and thereby generating a record of the problems). Officials at 5 of the 9 sites told us they temporarily resolved the problem by turning off and restarting the computers.

Although US-VISIT and CBP have some controls in place to help them identify and address problems like those discussed above, these controls may not have been implemented consistently or may not be sufficient to ensure that US-VISIT operates as intended because officials did not always alert CBP and US-VISIT program managers to the fact that problems were occurring that adversely affected operations. It is important that US-VISIT and CBP managers are alerted to problems as they occur to ensure continuity of operations consistent with US-VISIT's goal of providing security to U.S. citizens and travelers. Moreover, in light of the fact that US-VISIT plans to enhance security through additional technology investments and that it may be challenging to deploy and operate at facilities that are already known to be aging and undersized, it is incumbent upon the US-VISIT program office to play a continuing and proactive role in the management control structure.

Our internal control standards also call for agencies to establish performance measures and indicators throughout the organization so that actual performance can be compared to expected results. The US-VISIT program office has established and implemented performance measures for fiscal years 2005 and 2006 that are designed to gauge performance of various aspects of US-VISIT covering a variety of areas, but these measures do not gauge the performance of US-VISIT entry capabilities at land POEs. For example, according to a July 2006 draft report prepared by the US-VISIT program office, US-VISIT has begun to measure the ratio of adverse actions (defined as decisions to deny entry into the country) to total-biometric-watch-list “hits” when visitors are processed at ports of entry.<sup>40</sup> According to US-VISIT, this measure seeks to help CBP focus its inspection activities on preventing potential known or suspected criminals or terrorists from entering the country. US-VISIT reported that it had not established a baseline or target for this measure in fiscal year 2005. However, according to US-VISIT, CBP officers at all POEs combined

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<sup>40</sup>US-VISIT, *Draft Performance Measures Report* (Rosslyn, Va.: July 2006).

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denied entrance to 30 percent of persons whose biometric information appeared on a watch list during fiscal year 2005 (about 617 of the 2,059 watch list “hits”). US-VISIT established a target for this measure during fiscal year 2006 of 33 percent.

Another measure is designed to gauge the wait time incurred by a specific US-VISIT activity at all air, land, and sea POEs, namely the average response time to deliver results on biometric watch list queries for finger scans. (This measure does not gauge other US-VISIT related activities such as scanning the visa or passport, taking and processing a digital photograph, or printing an I-94.) To ensure that wait times are not increased substantially due to additional US-VISIT capabilities at POEs, US-VISIT has established a goal of 10 seconds and reported that, since October 2004, US-VISIT has been able to maintain, on average, less than an 8-second response time at POEs at which US-VISIT had been installed.

These and other existing measures of certain key aspects of program performance with respect to both security and efficiency can be useful in analyzing trends and measuring results against planned or expected results. However, because there are operational and facility differences among air, sea, and land POEs, it is important to be able to measure and distinguish differences—one would not expect baseline or target measures to be the same across these environments. At air and sea ports, visitors are processed in primary inspection in a controlled environment and CBP officers are able to prescreen visitors using passenger manifests, which are transmitted to CBP while passengers are enroute to the POE. By contrast, at land POEs, visitors arrive on foot or in a vehicle and CBP officers refer them to secondary inspection for US-VISIT processing without the benefit of a manifest and based on the information available to officers at the point of initial contact—a process substantially different than that used at air and sea ports. The measures used in August 2006 aggregated baselines and targets for all POEs and did not distinguish among them with regard to air, land, and sea POEs.

Without additional performance measures to more fully gauge operational impacts of US-VISIT on land POEs, CBP and US-VISIT may not be well equipped to identify problems, trends, and areas needing improvements now and as additional US-VISIT entry capabilities, such as 10-finger scans, are introduced. Consistent with our past work, we believe such measures could help DHS identify and quantify problems, evaluate alternatives,

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allocate resources, track progress, and learn from any mistakes that may have been made while deploying and operating US-VISIT at land POEs.<sup>41</sup>

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## DHS Cannot Currently Implement a Biometric US-VISIT Exit Capability at Land POEs and Faces Uncertainties as Testing of an Alternative Exit Strategy Continues

While federal laws require the creation of a US-VISIT exit capability using biometric verification, the US-VISIT Program Office concluded that implementing a biometrically-based exit-recording system like that used to record visitors entering the country would require additional staff and new infrastructure (such as buildings and roadways) that would be prohibitively costly, would likely produce major traffic congestion in exit lanes at the busier land POEs and could have adverse impacts on trade and commerce. Although current technology does not exist to enable biometric verification of those leaving the country without major infrastructural changes, US-VISIT officials believe technological advances over the next 5- to 10- years will enable them to record who is leaving the country using biometrics without requiring travelers to stop at a facility, thereby minimizing the need for major infrastructure changes. In the interim, US-VISIT is testing an alternative nonbiometric technology for recording visitors as they exit the country, in which electronic tags containing a numeric identifier associated with each visitor are embedded in I-94 forms. US-VISIT's own analysis of this technology and our analysis and that of others has identified numerous performance and reliability problems with this solution, including the inability of the nonbiometric solution to ensure that the person exiting the country is the same who entered. US-VISIT has taken corrective actions and testing is still ongoing, but uncertainties remain about how US-VISIT will use technology in the future to meet biometric exit requirements. These uncertainties reflect the fact that DHS has not met a June 2005 statutory requirement to submit a report to the Congress that describes (1) the status of biometric exit data systems already in use at POEs and (2) the manner in which US-VISIT is to meet the goal of a comprehensive screening system, with both entry and exit biometric capability.

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<sup>41</sup>GAO, *Executive Guide: Measuring Performance and Demonstrating Results of Information Technology Investments*, [GAO/AIMD-98-89](#) (Washington, D.C.: March 1998).

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## Various Factors Have Prevented US-VISIT from Implementing a Biometric Exit Capability

Federal laws require the creation of a US-VISIT exit capability using biometric verification methods to ensure that the identity of visitors leaving the country can be matched biometrically against their entry records.<sup>42</sup> However, according to officials at the US-VISIT program office and CBP and US-VISIT program documentation, there are interrelated logistical, technological, and infrastructure constraints that have precluded DHS from achieving this mandate, and there are cost factors related to the feasibility of implementation of such a solution. The major constraint to performing biometric verification upon exit at this time, in the US-VISIT Program Office's view, is that the only proven technology available would necessitate mirroring the processes currently in use for US-VISIT at entry. A mirror-image system for exit would, like entry, require CBP officers at land POEs to examine the travel documents of those leaving the country, take fingerprints, compare visitors' facial features to photographs, and, if questions about identity arise, direct the departing visitor to secondary inspection for additional questioning. These steps would be carried out for exiting pedestrians as well as for persons exiting in vehicles. The US-VISIT Program Office concluded in an internal January 2005 report assessing alternatives to biometric exit that the mirror-imaging solution was "an infeasible alternative for numerous reasons, including but not limited to, the additional staffing demands, new infrastructure requirements, and potential trade and commerce impacts."<sup>43</sup>

US-VISIT officials told us that they anticipated that a biometric exit process mirroring that used for entry could result in delays at land POEs with heavy daily volumes of visitors. And they stated that in order to implement a mirror-image biometric exit capability, additional lanes for exiting vehicles and additional inspection booths and staff would be needed, though they have not determined precisely how many. According to these officials, it is unclear how new traffic lanes and new facilities could be built at land POEs where space constraints already exist, such as those in congested urban areas. (For example, San Ysidro, California, currently has 24 entry lanes, each with its own staffed booth and 6 unstaffed exit lanes. Thus, if full biometric exit capability were implemented using a mirror image approach, San Ysidro's current capacity

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<sup>42</sup>Intelligence Reform and Terrorism Prevention Act of 2004, § 7208, 8 U.S.C. § 1365b. See also USA PATRIOT Act, Pub. L. No. 107-56, § 414(b)(1), 115 Stat. 272, 353 (2001); 8 U.S.C. § 1365a(b)(2)-(4).

<sup>43</sup>US-VISIT, *Increment 2C Operational Alternatives Assessment—FINAL* (Rosslyn, Va.: Jan. 31, 2005).

of 6 exit lanes would have to be expanded to 24 exit lanes.) As shown in figure 6, based on observations during our site visit to the San Ysidro POE, the facility is surrounded by dense urban infrastructure, leaving little, if any, room to expand in place. Some of the 24 entry lanes for vehicle traffic heading northwards from Mexico into the United States appear in the bottom left portion of the photograph, where vehicles are shown waiting to approach primary inspection at the facility; the six exit lanes (traffic towards Mexico), which do not have fixed inspection facilities, are at the upper left.

**Figure 6: Aerial View of San Ysidro, California, POE**



Source: GAO.

Other POE facilities are similarly space-constrained. At the POEs at Nogales-DeConcini, Arizona, for example, we observed that the facility is bordered by railroad tracks, a parking lot, and industrial or commercial buildings. In addition, CBP has identified space constraints at some rural POEs. For example, the Thousand Islands Bridge POE at Alexandria Bay, New York, is situated in what POE officials described as a “geological bowl,” with tall rock outcroppings potentially hindering the ability to expand facilities at the current location. Officials told us that in order to

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accommodate existing and anticipated traffic volume upon entry, they are in the early stages of planning to build an entirely new POE on a hill about a half-mile south of the present facility. CBP officials at the Blaine-Peace Arch POE in Washington state said that CBP also is considering whether to relocate and expand the POE facility, within the next 5-to-10 years, to better handle existing and projected traffic volume. According to the US-VISIT program officials, none of the plans for any expanded, renovated, or relocated POE include a mirror-image addition of exit lanes or facilities comparable to those existing for entry.

In 2003, the US-VISIT Program Office estimated that it would cost approximately \$3 billion to implement US-VISIT entry and exit capability at land POEs where US-VISIT was likely to be installed and that such an effort would have a major impact on facility infrastructure at land POEs. We did not assess the reliability of the 2003 estimate. The cost estimate did not separately break out costs for entry and exit construction, but did factor in the cost for building additional exit vehicle lanes and booths as well as buildings and other infrastructure that would be required to accommodate a mirror imaging at exit of the capabilities required for entry processing. US-VISIT program officials told us that they provided this estimate to congressional staff during a briefing, but that the reaction to this projected cost was negative and that they therefore did not move ahead with this option. No subsequent cost estimate updates have been prepared, and DHS's annual budget requests have not included funds to build the infrastructure that would be associated with the required facilities.

US-VISIT officials stated that they believe that technological advances over the next 5-to-10 years will make it possible to utilize alternative technologies that provide biometric verification of persons exiting the country without major changes to facility infrastructure and without requiring those exiting to stop and/or exit their vehicles, thereby precluding traffic backup, congestion, and resulting delays. US-VISIT's report assessing biometric alternatives noted that although limitations in technology currently preclude the use of biometric identification because visitors would have to be stopped, the use of the as-yet undeveloped biometric verification technology supports the long-term vision of the US-VISIT program.<sup>44</sup> However, no such technology or device currently exists

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<sup>44</sup>US-VISIT, *Increment 2C Operational Alternatives Assessment—FINAL* (Rosslyn, Va: Jan. 31, 2005).

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that would not have a major impact on facilities. The prospects for its development, manufacture, deployment and reliable utilization are currently uncertain or unknown, although a prototype device that would permit a fingerprint to be read remotely without requiring the visitor to come to a full stop is under development.

While logistical, technical, and cost constraints may prevent implementation of a biometrically based exit technology for US-VISIT at this time, it is important to note that there currently is not a legislatively mandated date for implementation of such a solution. The Intelligence Reform and Terrorism Prevention Act of 2004 requires US-VISIT to collect biometric-exit-data from all individuals who are required to provide biometric entry data.<sup>45</sup> The act did not set a deadline, however, for requiring collection of biometric exit data from all individuals who are required to provide biometric entry data. Although US-VISIT had set a December 2007 deadline for implementing exit capability at the 50 busiest land POEs, US-VISIT has since determined that implementing exit capability by this date is no longer feasible, and a new date for doing so has not been set.

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## The US-VISIT Program Office Is Testing Nonbiometric Technology to Record Travelers' Departure

Because there is at present no biometric technology that can be used to verify a traveler's exit from the country at land POEs without also making major and costly changes to POE infrastructure and facilities, the US-VISIT Program Office sought an alternative means of recording a visitor's exit from the country, using nonbiometric technology, that could be tested at land POEs. US-VISIT determined that the chosen nonbiometric technology would have to meet certain criteria. According to the US-VISIT Program Office, the technology would have to: (1) permit recording of an exiting visitor in order that stopping or slowing down would not be required and privacy issues were addressed; (2) result in no increase in wait times for visitors; (3) create no degradation in the level of service at exit lanes; (4) create no significant degradation in traffic patterns (that is,

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<sup>45</sup>8 U.S.C. § 1365b(d).

<sup>47</sup>US-VISIT evaluated 12 different exit-recording technologies against the six criteria listed above, including some that incorporated biometric features—scanning the retina or iris, and a facial recognition system. Because the biometric solutions considered would have required an exiting visitor to slow down, stop, or possibly enter a POE facility, they were rejected. Other alternatives, such as the use of a global positioning system, were rejected because they transmit signals that could facilitate surveillance of individuals, raising concerns about privacy.

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no additional traffic congestion); (5) be convenient to the visitor, and (6) be commercially available. None of these criteria directly addressed or reflected the legislative mandate to deploy a system to record entry and exit by foreign travelers using biometric identifiers in order to ensure that persons leaving the country were those who had entered. Rather, the criteria focused on choosing a technology that would not require a major investment in facilities, would protect privacy, and would not generate large traffic backups that would inconvenience or delay both travelers and commercial carriers.

Among the technologies considered for testing by the US-VISIT Program Office, the only one that met all the US-VISIT evaluation criteria was passive, automated, radio frequency identification (RFID).<sup>47</sup> This technology, according to US-VISIT, “best satisfied all the assessment criteria.” RFID is an automated data-capture technology that can be used to electronically store information contained on a very small tag that can be embedded in a document (or some other physical item). This information can then be identified, and recorded as having been identified, by RFID readers that are connected to computer databases.

For purposes of US-VISIT’s testing of the nonbiometric technology, the RFID tag is embedded in a modified I-94 arrival/departure form, called an I-94A. Each RFID tag has only a single number stored in it; privacy is protected because no information is stored on these tags other than a unique ID number that is linked to the visitor’s biographic information. To facilitate the transmission of the number from the RFID tag, a new DHS system of records—the Automated Identification Management System (AIDMS)<sup>48</sup>—was created to link the unique RFID tag ID number to existing information stored in the Treasury Enforcement Communications System (TECS) database, which is used by CBP to verify travel information and update traveler data.<sup>49</sup> According to US-VISIT, limiting the data on the tag to a single number helps preserve the privacy of travelers; acquisition of the number would provide no meaningful information to non-authorized persons, since they would then have to access TECS to link the number to

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<sup>48</sup>AIDMS is a system separate from TECS, IDENT and other databases used in the US-VISIT process.

<sup>49</sup>The Treasury Enforcement Communications System (TECS) is a system that maintains lookout (i.e., watch list) data, interfaces with other agencies’ databases, and is currently used by inspectors at ports of entry to verify traveler information and update traveler data. Although still labeled as a Treasury system, TECS has been transferred to CBP.

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biographic data. However, access to computers and their databases at land POEs is restricted to authorized personnel and involves additional protections such as passwords as well as entrance into physically restricted areas inside POE buildings. (A more detailed discussion of RFID technology and privacy issues is contained in appendix VI.)

The RFID technology used in this way is considered passive because the tag cannot initiate communications. Rather, the tag responds to radio frequency emissions from an RFID reader—an electronic device that can be installed on a pole, or on a steel gantry of the kind that holds highway signs over the entire width of a roadway (see figure 11)—and transmits the numeric information stored on the tag back to the reader, from up to 30 feet away, according to the US-VISIT Program Office. Figure 7a shows RFID readers mounted on a metal gantry at the Thousand Islands Bridge land POE, Alexandria Bay, New York. The readers are attached to metal extensions that project out from the right side of the gantry, to record an I-94A embedded with tags that are inside the vehicles that pass underneath. RFID readers can also be installed in portals or on poles at pedestrian traffic areas to read the I-94A embedded with tags of persons leaving the country on foot. Figure 7b shows RFID readers in portals positioned on either side of pedestrian exit doors at the Blaine-Peace Arch POE in Washington State.

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**Figure 7a: Metal Gantry with RFID Readers and Antennas at the Thousand Islands Bridge POE, Alexandria Bay, New York**



Source: GAO.

**Figure 7b: RFID Portals Positioned Next to Exit Doors at the Blaine-Peace Arch POE in Washington State**



Source: GAO.

### Initial Results of Testing Using RFID Technology Indicate Problems Meeting a Key Program Goal—Verifying the Identity of Persons Leaving the Country

In December 2004 and January 2005, a team of US-VISIT contractors conducted the first part of a feasibility study to test passive RFID equipment in a simulated environment—at a mock POE in Virginia. At this site, different types of vehicles— including cars, buses, and trucks—were run at different speeds to test RFID read rates. Pedestrians carrying documents with RFID tags embedded or attached were not tested. The feasibility study raised numerous issues about the reliability and performance of the RFID technology. For example, RFID readers held on a gantry over a roadway had difficulty detecting RFID-detectable tags that were inside vehicles with metallic tinted windows (whether the windows were open or closed). The read rate was improved from about 56 percent to about 70 percent if the readers were moved to both sides of the road, rather than overhead, and if the occupants held their documents with the RFID-detectable tags up to the vehicle’s side windows. The study concluded that the physical actions of the visitor had to be taken into

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account when obtaining a read of the I-94A and made specific recommendations to improve read rates, such as suggesting that vehicle occupants hold the I-94A up to a side window and keep multiple forms apart.

After the feasibility study, US-VISIT proceeded, as planned, with phase 1 of proof-of-concept testing for RFID at five land POEs at the northern and southern borders to determine what corrective actions, if any, should be taken to improve RFID read rates for exiting vehicles and pedestrians. This effort comprised testing for both exit and for re-entry by persons who have been issued a tag-embedded I-94A that is valid for multiple entries over several months.<sup>50</sup> The RFID performance tests were conducted for one-week periods at land POEs, as follows:<sup>51</sup> vehicular traffic was tested at Nogales-Mariposa and Nogales-DeConcini POEs in Nogales, Arizona; the Blaine-Pacific Highway and Blaine-Peace Arch POEs in Blaine, Washington; and Thousand Islands Bridge POE in Alexandria Bay, New York; pedestrian traffic was tested at the Nogales-Mariposa and Nogales-DeConcini POEs.

For these exit tests, the US-VISIT Program Office developed critical success factor target read rates to compare them to the actual read rates obtained during the test for both pedestrians carrying an I-94A with RFID-detectable tags and for travelers in vehicles who also had an RFID-detectable I-94A with them inside the vehicles. The target exit read rates ranged from an expected success rate of 70 percent to 95 percent, based on anticipated performance under different conditions, partly as demonstrated in the earlier feasibility study, on business requirements, and on a concept of operation plan prepared for Increment 2C.<sup>52</sup>

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<sup>50</sup>According to the US-VISIT Program Office, approximately \$104 million was budgeted in fiscal years 2004 and 2005 to conduct proof-of-concept testing of RFID for exit and re-entry. No separate break-out of testing expenditures related to exit alone was available.

<sup>51</sup>Site selection factors included potential physical constraints, such as protected historic structures that could hamper installation of gantries, potential environmental impact, daily traffic and I-94 processing volume, speed limits, and weather conditions.

<sup>52</sup>A concept of operations defines how day-to-day operations are (or will be) carried out to meet mission needs. The concept of operations includes high-level descriptions of information systems, their interrelationships, and information flows. It also describes the operations that must be performed, who must perform them, and where and how the operations will be carried out.

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In a January 2006 assessment<sup>53</sup> of the test results, the US-VISIT Program Office reported that the exit read rates that occurred during the test generally fell short of the expected target rates for both pedestrians and for travelers in vehicles. For example, according to US-VISIT, at the Blaine-Pacific Highway test site, of 166 vehicles tested, RFID readers correctly identified 14 percent; the target read rate was 70 percent.<sup>54</sup> Another problem that arose was that of cross-reads, in which multiple RFID readers installed on gantries or poles picked up information from the same visitor, regardless of whether the individual was entering or exiting in a vehicle or on foot. Thus, cross-reads resulted in inaccurate record-keeping. According to a January 2006 US-VISIT corrective-action report, signal-filtering equipment is to be installed to correct the problem and additional testing is to be conducted to confirm and understand the extent of the problem. The report also noted that remedying cross-reads would require changes to equipment and infrastructure on a case-by-case basis at each land POE, because each has a different physical configuration of buildings, roadways, roofs, gantries, poles, and other surfaces against which the signals can bounce and cause cross-reads. Each would therefore require a different physical solution to avoid the signal interference that triggers cross-reads. Although cost estimates or time lines have not been developed for such alterations to facilities and equipment, it is possible that having to alter the physical configuration at each land POE in some regard and then test each separately to ensure that cross-reads had been eliminated would be both time consuming and potentially costly, in terms of changes to infrastructure and equipment.

We observed potential problems with the RFID exit system relating to facilities and infrastructure at some of the POEs we visited. At the Nogales-Mariposa POE, in Nogales, Arizona, for example, we observed that RFID portals for pedestrians had been placed on the right side of the CBP POE building, on a rocky, sloping hillside, and that there was no signage directing pedestrians to walk between them, nor was a walkway installed, as shown in figure 8a. Although travelers were expected to walk between the portals, this configuration enabled pedestrians to avoid the

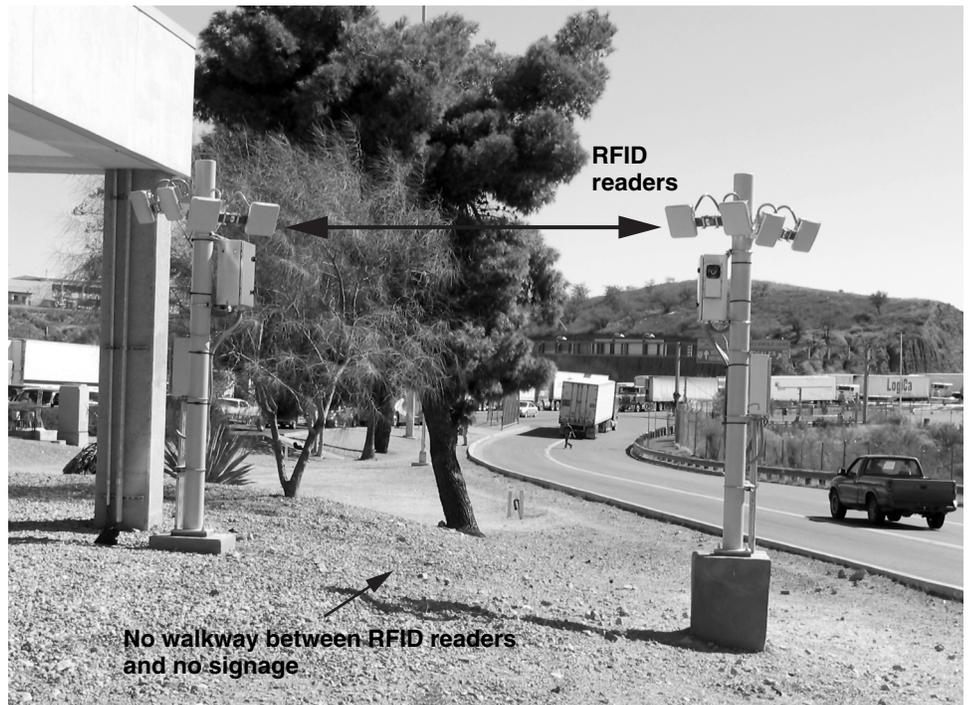
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<sup>53</sup>US-VISIT Program Office, *Increment 2C Proof of Concept—Phase 1 Performance Evaluation Report, Post Implementation* (Rosslyn, VA: Jan. 20, 2006).

<sup>54</sup>A US-VISIT program official explained that for vehicles exiting during RFID testing, one could “reasonably expect” a read rate of 70 percent because vehicles are not required to stop upon exit. The official also cited vehicle speed, safety, and awareness (of optimal I-94A positioning; for example, holding the I-94A up to the window of the vehicle) as factors that affected RFID read rates.

portals altogether—to walk around them or cross the road to avoid them, as shown in figure 8b.

**Figure 8a: RFID Installation at the Nogales-Mariposa POE in Arizona, Facing Toward Mexico**



Source: GAO.

**Figure 8b. Two Pedestrians Exiting the Country at the Nogales-Mariposa POE, Arizona, Walking Toward Mexico**



Source: GAO.

According to the US-VISIT corrective actions report, 15 percent of exiting pedestrian (including those participating in the test and those who did not) used the pathway between the two portals at the Nogales facility during a September 2005 observation period.<sup>55</sup> In this same report, US-VISIT acknowledged that there was no defined pathway or infrastructure for pedestrian exit at Nogales-Mariposa, Arizona, and that only one of the three pedestrian paths were covered by the portals that had been placed there. US-VISIT reported that while the placement of the portal readers will not be changed, it is taking steps to improve the likelihood of detection with additional antennae, readers, and signage. However, there are no plans at present to modify the existing POE infrastructure on the west side of the building where the portals were installed, such as by installing a paved walkway or by constructing fencing to divert those

<sup>55</sup>US-VISIT, *Final Increment 2C Phase 1 Proof of Concept Corrective Actions* (Rosslyn, Va: January 2006).

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exiting to go through the readers in order to increase the chances that exiting pedestrians are detected. In commenting on this report, DHS stated that it had constructed a new primary pedestrian exit walkway parallel to the existing pedestrian entry and had installed signage, sidewalks, and a new secure gate. However, according to a CBP official at the Nogales-Mariposa POE, the newly constructed pedestrian exit walkway is on the other (east) side of the building from the pathway where the portal readers were placed and tested.

During the period that US-VISIT carried out RFID exit tests at land POEs, US-VISIT also tested read rates for RFID-detectable documents carried by pedestrians or persons in vehicles who had been issued an I-94A during a prior visit to the United States, had subsequently left the country, and were intending to re-enter.<sup>56</sup> (I-94s can be issued that are valid for up to 6 months for multiple re-entries into the country.) US-VISIT performed the re-entry test for documents held by persons in vehicles at the Mariposa and DeConcini POEs in Nogales, Arizona; the Blaine-Pacific Highway and Blaine-Peace Arch, POEs in Washington state; and Thousand Islands Bridge POE at Alexandria Bay, New York. For pedestrians, the re-entry test was performed at the Mariposa and DeConcini POEs in Nogales, Arizona (see tables 6a and 6b, appendix VII). US-VISIT set higher expected target read rates for the re-entry test than for exit because all persons and vehicles entering or re-entering the country must stop for questioning by CBP officers and must take travel documents out of their pockets or from inside a vehicle, and show them to the officer, enhancing the likelihood that RFID-detectable documents would be detected. As expected by US-VISIT, read rates for the re-entry test for vehicles were generally higher than for exit, although the results did not meet the critical success factors initially projected by US-VISIT. Appendix VII discusses the results of RFID performance for exit and re-entry in greater detail.

Beyond RFID operations issues that affect facilities, our work and that of the DHS Privacy Office have identified other performance and reliability problems related to passive RFID. In June 2005, we testified before the Subcommittee on Economic Security, Infrastructure Protection, and Cybersecurity of the House Committee on Homeland Security on similar

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<sup>56</sup>Although all the tests were carried out at five land POEs, the number of POEs tested at which pedestrians exit and enter, and vehicles exit and entry differed, due to varying test conditions, according to the US-VISIT Program Office.

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reliability problems with RFID.<sup>57</sup> We noted, for example, that when an object close to the reader or tag interferes with the radio waves, read-rate accuracy decreases, and that environmental conditions, such as temperature and humidity, can make tags unreadable. We further noted that tags read at high speeds have a significant decrease in read rates.

According to US-VISIT officials, phase 2 of the RFID proof-of-concept testing, which is to expand the capabilities identified at the five phase 1 locations will, among other things, link visitor data to vehicle exit data (or re-entry, if the visitor already has an RFID- embedded I-94 form), address deficiencies noted in phase 1, and further evaluate RFID performance. At the time of our review, many uncertainties about the future of a US-VISIT exit capability remained because US-VISIT had not developed a plan to show when phase 2 of proof-of-concept testing of RFID would conclude, when an evaluation of the technology would be completed, and how US-VISIT would define success.

However, even if RFID deficiencies were to be fully addressed and deadlines set, questions remain about DHS's intentions going forward. For example, the RFID solution does not meet the congressional requirement for a biometric exit capability because the technology that has been tested cannot meet a key goal of US-VISIT—ensuring that visitors who enter the country are the same ones who leave. By design, an RFID tag embedded in an I-94 arrival/departure form cannot provide the biometric identity-matching capability that is envisioned as part of a comprehensive entry/exit border security system using biometric identifiers for tracking overstays and others entering, exiting, and re-entering the country. Specifically, the RFID tag in the I-94 form cannot be physically tied to an individual. This situation means that while a document may be detected as leaving the country, the person to whom it was issued at time of entry may be somewhere else.

DHS was to have reported to Congress by June 2005 on how the agency intended to fully implement a biometric entry/exit program. As of October 2006, this plan was still under review in the Office of the Secretary, according to US-VISIT officials. According to statute, this plan is to include, among other things, a description of the manner in which the US-

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<sup>57</sup>GAO, *Information Security: Key Considerations Related to Federal Implementation of Radio Frequency Identification Technology*, [GAO-05-849T](#) (Washington, D.C.: June 22, 2005).

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VISIT program meets the goals of a comprehensive entry and exit screening system—including both biometric entry and exit—and fulfills statutory obligations imposed on the program by several laws enacted between 1996 and 2002.<sup>58</sup> Until such a plan is finalized and issued, DHS is not able to articulate how entry/exit concepts will fit together—including any interim nonbiometric solutions—and neither DHS nor Congress is positioned to prioritize and allocate resources for a US-VISIT exit capability or plan for the program’s future.

In commenting on this report, DHS acknowledged that the interim non-biometric exit technology using RFID tags embedded in the I-94 does not meet the statutory requirement for a biometric exit capability. DHS stated that it used the non-biometric technology because industry was not to the point of developing a device that could satisfy US-VISIT requirements, such as not impacting traffic flows or not having safety impacts. DHS said that US-VISIT officials would perform subsequent research and industry outreach activities in an attempt to satisfy statutory requirements for a biometric exit capability.

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## DHS Has Not Articulated How US-VISIT Strategically Fits with Other Land-Border Security Initiatives

In recent years, DHS has planned or implemented a number of initiatives aimed at securing the nation’s borders. However, DHS has not defined a strategic context that shows how US-VISIT fits with other land border initiatives. As we reported in September 2003, agency programs need to properly fit within a common strategic context governing key aspects of program operations—e.g., what functions are to be performed by whom; when and where they are to be performed; what information is to be used to perform them; what rules and standards will govern the application of technology to support them; and what facility or infrastructure changes will be needed to ensure that they operate in harmony and as intended.<sup>59</sup> Without a clear strategic context for US-VISIT, the risk is increased that the program will not operate with related programs and thus not cost-effectively meet mission needs.

In our September 2003 report, we stated that DHS had not defined key aspects of the larger homeland security environment in which US-VISIT would need to operate. For example, certain policy and standards

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<sup>58</sup>U.S.C. §1365b(c)(2)(E).

<sup>59</sup>GAO, *Homeland Security: Risks Facing Key Border and Transportation Security Program Need to Be Addressed*, [GAO-03-1083](#) (Washington, D.C.: Sept. 19, 2006).

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decisions had not been made, such as whether official travel documents would be required for all persons who enter and exit the country, including U.S. and Canadian citizens, and how many fingerprints would be collected—factors that could potentially increase inspection times and ultimately increase traveler wait times at some of the higher volume land POE facilities. To minimize the impact of these changes, we recommended that DHS clarify the context in which US-VISIT is to operate. Three years later, defining this strategic context remains a work in progress. Thus, the program's relationships and dependencies with other closely allied initiatives and programs are still unclear.

According to the US-VISIT Chief Strategist, the Program Office drafted in March 2005 a strategic plan that showed how US-VISIT would be strategically aligned with DHS's organizational mission and also defined an overall vision for immigration and border management.<sup>60</sup> According to this official, the draft plan provided for an immigration and border management enterprise that unified multiple internal departmental and other external stakeholders with common objectives, strategies, processes, and infrastructures. As of October 2006, we were told that DHS had not approved this strategic plan. This draft plan was not available to us, and it is unclear how it would provide an overarching vision and road map of how all these component elements can at this time be addressed given that critical elements of other emerging border security initiatives have yet to be finalized. For example, under the Intelligence Reform and Terrorism Prevention Act of 2004, DHS and State are to develop and implement a plan, no later than June 2009, which requires U.S. citizens and foreign nationals of Canada, Bermuda, and Mexico to present a passport or other document or combination of documents deemed sufficient to show identity and citizenship to enter the United States (this is currently not a requirement for these individuals entering the United States via land POEs from within the western hemisphere). This effort, known as the Western Hemisphere Travel Initiative (WHTI), was first announced in 2005, and some members of Congress and others have raised questions about agencies' progress carrying out WHTI. In May 2006, we issued a report that provided our observations on efforts to implement WHTI along

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<sup>60</sup>In commenting on this report, DHS stated that this plan includes US-VISIT's draft response to the legislative requirement that DHS produce a report to the Congress by June 2005 that describes a comprehensive US-VISIT entry/exit screening system, as discussed earlier in this report.

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the U.S. border with Canada.<sup>61</sup> We stated that DHS and State had taken some steps to carry out the Travel Initiative, but they had a long way to go to implement their proposed plans, and time was slipping by. Among other things, we found that:

- key decisions had yet to be made about what documents other than a passport would be acceptable when U.S. citizens and citizens of Canada enter or return to the United States—a decision critical to making decisions about how DHS is to inspect individuals entering the country, including what common facilities or infrastructure might be needed to perform these inspections at land POEs;
- a DHS and Department of State proposal to develop an alternative form of passport, called a PASS card, would rely on RFID technology to help DHS process U.S. citizens re-entering the country, but DHS had not made decisions involving a broad set of considerations that include (1) utilizing security features to protect personal information, (2) ensuring that proper equipment and facilities are in place to facilitate crossings at land borders, and (3) enhancing compatibility with other border crossing technology already in use.

As of September 2006, DHS had still not finalized plans for changing the inspection process and using technology to process U.S. citizens and foreign nationals of Canada, Bermuda, and Mexico reentering or entering the country at land POEs. In the absence of decisions about the strategic direction of both programs, it is still unclear (1) how the technology used to facilitate border crossings under the Travel Initiative will be integrated with US-VISIT technology, if at all, and (2) how land POE facilities would have to be modified to accommodate both programs to ensure efficient inspections that do not seriously affect wait times. This raises the possibility that CBP would be faced with managing differing technology platforms and border inspection processes at high-volume land POEs facilities that, according to DHS, already face space constraints and congestion.

Similarly, it is not clear how US-VISIT is to operate in relation to another emerging border security effort, the Secure Border Initiative (SBI)—a new comprehensive DHS initiative, announced last year, to secure the

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<sup>61</sup>GAO, *Observations on Efforts to Implement the Western Hemisphere Travel Initiative on the U.S. Canadian Border*, [GAO-06-741R](#) (Washington, D.C.: May 25, 2006).

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country's borders and reduce illegal migration. According to DHS, as of June 2006, SBI is to focus broadly on two major themes:

- border control—gaining full control of the borders to prevent illegal immigration, as well as security breaches, and
- interior enforcement—disrupting and dismantling cross border crime into the interior of the United States while locating and removing aliens who are present in the United States in violation of law.

Under SBI and its CBP component, called SBInet, DHS plans to use a systems approach to integrate personnel, infrastructures, technologies, and rapid response capability into a comprehensive border protection system. DHS reports that, among other things, SBInet is to encompass both the northern and southern land borders, including the Great Lakes, under a unified border control strategy whereby CBP is to focus on the interdiction of cross-border violations between the ports and at the official land POEs and funnel traffic to the land POEs.

DHS has recently awarded a contract to help DHS design, build, and execute SBInet. Although DHS has published some information on various aspects of SBI and SBInet, it remains unclear how SBInet will be linked, if at all, to US-VISIT so that the two systems can share technology, infrastructure, and data across programs. For example, from a border control perspective, questions arise on whether CBP needs additional resources, facilities or facility modifications, and procedural changes at land POEs if all those who attempt to enter the country on the northern and southern border are successfully funneled to land POEs.

Also, given the absence of a comprehensive entry and exit system, questions remain about what meaningful data US-VISIT may be able to provide other DHS components, such as Immigration and Customs Enforcement (ICE), to ensure that DHS can, from an interior enforcement perspective, identify and remove foreign nationals covered by US-VISIT who may have overstayed their visas. In a May 2004 report, we stated that although no firm estimates were available, the extent of overstaying is significant.<sup>62</sup> We stated that most long-term overstays appeared to be motivated by economic opportunities, but a few had been identified as terrorists or involved in terrorist-related activities. Notably, some of the

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<sup>62</sup>GAO, *Overstay Tracking: A Key Component of Homeland Security and a Layered Defense*, [GAO-04-82](#) (Washington, D.C.: May 2004).

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September 11 hijackers had overstayed their visas. We further reported that US-VISIT held promise for identifying and tracking overstays as long as it could overcome weaknesses matching visitors' entry and exit.

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## Conclusions

Developing and deploying complex technology that records the entry and exit of millions of visitors to the United States, verifies their identities to mitigate the likelihood that terrorists or criminals can enter or exit at will, and tracks persons who remain in the country longer than authorized is a worthy goal in our nation's effort to enhance border security in a post-9/11 era. But doing so also poses significant challenges; foremost among them is striking a reasonable balance between US-VISIT's goals of providing security to U.S. citizens and visitors while facilitating legitimate trade and travel. DHS has made considerable progress making the entry portion of the US-VISIT program at land ports of entry (POEs) operational, and border officials have clearly expressed the benefits that US-VISIT technology and biometric identification tools have afforded them. Nevertheless, US-VISIT is one in a series of ambitious border security initiatives that could take a toll on the current facilities and infrastructure in place to support the activities at land POEs, which already process a large majority (more than 75 percent) of all visitors entering the United States via legal checkpoints. Many land POEs operate out of small, aging structures that are constrained by space and that were constructed before technology and associated equipment played a prominent role in processing activities.

Our current and past work has raised questions on whether DHS has adequately assessed how US-VISIT has affected operations at land POEs, given current constraints at facilities that routinely experience high traffic volumes and which encounter occasional computer-processing problems. As additional US-VISIT capabilities—such as 10-fingerprint scanning—are installed at land POEs and as other border security initiatives unfold, including the Western Hemisphere Travel Initiative, it is particularly important that DHS be able to anticipate potential problems and develop solutions to minimize any operational and logistical impacts on aging and already overcrowded land POE facilities. Our earlier recommendation on this issue suggested that DHS needed to expand upon prior efforts to assess the impact of US-VISIT on busy land POEs in order to obtain a fuller understanding of the system's impact on these facilities from an operational and human capital perspective. We believe this remains an important step to take because it would help DHS establish a baseline or foundation from which to anticipate potential problems while providing a framework for developing strategies and action plans to overcome them.

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Although US-VISIT has said it would conduct operational assessments at POEs as new projects came online, the assessment methodology US-VISIT has used in the past—which focused on measuring changes in I-94 processing times—raised questions about how the agency will perform future assessments.

In addition, because US-VISIT will likely continue to have an impact on land POE facilities as it evolves, it is important for US-VISIT and CBP officials to have sufficient management controls for identifying and reporting potential computer and other operational problems as they arise—problems that could affect the ability of US-VISIT entry capability to operate as intended. If additional delays in processing visitors were to occur, the ability of POE facilities to handle additional vehicular and pedestrian traffic could be further strained, and incidents requiring officials to turn visitors away temporarily may increase. Likewise, if disruptions to US-VISIT computer operations are not consistently and promptly reported and resolved and if communication between CBP and US-VISIT officials about computer-related problems and other operational challenges is not effective, then it is possible that a critical US-VISIT function—notably, the ability to use biometric information to confirm visitors' identities through various databases—could be disrupted, as has occurred in the past. The need to avoid disruptions to biometric verification is important given that one of the primary goals of US-VISIT is to enhance the security of U.S. citizens and visitors, and in light of the substantial investment DHS has made in US-VISIT technology and equipment.

US-VISIT has taken appropriate steps to develop performance measures that focus on various aspects of US-VISIT performance across air, land, and sea POEs. However, these measures do not go far enough to assess the affect of US-VISIT on POE operations, particularly land POEs, which are operationally distinctive from air and sea POEs where US-VISIT entry has also been installed. Such measures are needed to ensure that officials can identify and address problems at land-based facilities where improvements may be needed.

With respect to DHS's effort to create an exit verification capability, developing and deploying this capability for US-VISIT at land POEs has posed a set of challenges that are distinct from those associated with entry. US-VISIT has not determined whether it can achieve, in a realistic time frame, or at an acceptable cost, the legislatively mandated capability to record the exit of travelers at land POEs using biometric technology. Apart from acquiring new facilities and infrastructure at an estimated cost

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of billions of dollars, US-VISIT officials have acknowledged that no technology now exists to reliably record travelers' exit from the country, and to ensure that the person leaving the country is the same person who entered, without requiring them to stop upon exit—potentially imposing a substantial burden on travelers and commerce. US-VISIT officials stated that they believe a biometrically based solution that does not require those exiting the country to stop for processing, that minimizes the need for major facility changes, and that can be used to definitively match a visitor's entry and exit will be available in 5 to 10 years. In the interim, it remains unclear how officials plan to proceed—whether a nonbiometric alternative now being tested can provide an acceptable interim solution or whether the government ought to wait for a viable biometric solution to become available. According to statute, DHS was required to report more than a year ago on its plans for developing a comprehensive biometric entry and exit system, but DHS has yet to finalize this road map for Congress. Reporting might provide better assurance that US-VISIT can balance its goals of providing security, serving the immigration system, facilitating trade and travel, and protecting privacy at land POEs. This plan would also give DHS the opportunity to discuss the costs, benefits, barriers, and opportunities associated with various strategies for deploying biometric and nonbiometric exit capabilities and keep Congress informed of its progress overall. Until DHS finalizes such a plan, neither Congress nor DHS are likely to have sufficient information as a basis for decisions about various factors relevant to the success of US-VISIT, ranging from funding needed for any land POE facility modifications in support of the installation of exit technology to the trade-offs associated with ensuring traveler convenience while providing verification of travelers' departure consistent with US-VISIT's national security and law enforcement goals.

Finally, DHS has not articulated how US-VISIT fits strategically and operationally with other land-border security initiatives, such as the Western Hemisphere Travel Initiative and Secure Border Initiative. Without knowing how US-VISIT is to be integrated within the larger strategic context governing DHS operations, DHS faces substantial risk that US-VISIT will not align or operate with other initiatives at land POEs and thus not cost-effectively meet mission needs. Knowing how US-VISIT is to work in harmony with these initiatives could help Congress, DHS, and others better understand what resources, tools, and investments in land POE facilities and infrastructure are needed to ensure their success, while providing critical information to help make decisions about other DHS missions. This could include, for example, information on what funds and staffing resources ICE would need to enforce immigration laws if US-VISIT were able to provide reliable and timely information on potentially

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millions of persons who have overstayed the terms of their visas, some of whom may pose a threat to the nation's security.

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## Recommendations for Executive Action

To help DHS achieve benefits commensurate with its investment in US-VISIT at land POEs and security goals and objectives, we are recommending that the Secretary of Homeland Security direct the US-VISIT Program Director, in collaboration with the Commissioner of CBP, to take the following two actions:

- improve existing management controls for identifying and reporting computer processing and other operational problems as they arise at land POEs and ensure that these controls are consistently administered; and
- develop performance measures for assessing the impact of US-VISIT operations specifically at land POEs.

We also recommend that as DHS finalizes the statutorily mandated report describing a comprehensive biometric entry and exit system for US-VISIT, the Secretary of Homeland Security take steps to ensure that the report include, among other things,

- information on the costs, benefits, and feasibility of deploying biometric and nonbiometric exit capabilities at land POEs;
- a discussion of how DHS intends to move from a nonbiometric exit capability, such as the technology currently being tested, to a reliable biometric exit capability that meets statutory requirements; and
- a description of how DHS expects to align emerging land border security initiatives with US-VISIT and what facility or facility modifications would be needed at land POEs to ensure that technology and processes work in harmony.

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## Agency Comments and Our Evaluation

We requested comments on a draft of this report from the Secretary of Homeland Security. In an October 31, 2006, letter, DHS provided written comments, which are summarized below and included in their entirety in appendix VIII.

DHS generally agreed with our recommendations and stated that it needed to improve existing management controls associated with US-VISIT, develop performance measures to assess the impact of US-VISIT operations at land POEs, and ensure that the statutorily mandated report describes how DHS will move to a biometric entry and exit capability and align US-VISIT with emerging land border initiatives. DHS did not provide

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timelines for when it plans to take these steps, including finalizing the statutorily mandated report, which was to have been issued to the Congress in June 2005.

DHS disagreed with certain aspects of or sought clarification on some of our findings. DHS disagreed with our finding that the US-VISIT program office did not fully consider the impact of US-VISIT on the overall operations at POEs. It said that US-VISIT impacts are limited to changes in Form I-94 processing time, which it says are positive, as supported by US-VISIT evaluations. According to DHS other factors related to capacity, staffing, and the volume of travelers are “arguably” beyond the scope of US-VISIT.

We agree that the approach taken to do operational assessments of the impact of US-VISIT land POE facilities focused on changes to I-94 processing time and that a variety of factors and processes can affect traveler inspections and associated wait times at land POEs. However, as discussed in this and our February 2006 report, the assessment methodology US-VISIT has used thus far had limitations—including focusing solely on I-94 processing time.<sup>63</sup> Unanticipated problems at facilities that routinely experience high traffic volumes and occasionally encounter computer processing shortfalls raise questions about whether DHS has adequately assessed how US-VISIT has affected operations at land POEs. Although it may not be cost-effective for US-VISIT or CBP to conduct a formal assessment of the impact of US-VISIT at each land POE, it is important that DHS be positioned to anticipate potential problems and develop solutions to minimize any operational and logistical impacts on aging and already overcrowded land POE facilities. This is especially true given that DHS recognizes that the transition from 2- to 10-print digital scanning has a high likelihood of impacting port facilities.

Regarding the latter, we have amended our report to clarify, consistent with DHS’s comments, that US-VISIT is currently working with industry to speed up processing time and reduce the size of the 10-print capture devices to “eliminate or significantly reduce the impact of deploying 10-print scanning.” DHS efforts to work with industry highlights the need to more fully assess how US-VISIT affects land POEs so that potential problems can be identified and addressed before the readers, or any other new programs, are introduced at land POEs. As noted in our report, based on our past work, any lengthening in the process of entering the United

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<sup>63</sup> [GAO-06-296](#).

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States at the busiest land POEs could inconvenience travelers and result in fewer visits to the United States or lost business to the nation.<sup>64</sup>

DHS also suggested that we clarify its acknowledgement that the non-biometric technology tested did not meet the statutory requirement for biometric exit capability. DHS stated that the non-biometric technology was used because industry has yet to develop a biometric exit device that could satisfy mission requirements such as not impacting traffic flow and not having safety impacts. We have amended our report to clarify that DHS acknowledged that the non-biometric technology would not satisfy statutory requirements and to reflect that it would perform research and industry outreach to satisfy the mandate. Nonetheless, the fact that the non-biometric exit technology used does not satisfy the congressionally mandated biometric exit capability underscores the importance of our recommendation for DHS to clearly articulate how it plans to move from a non-biometric exit technology to a biometric exit solution.

In addition, DHS suggested that we clarify that, with regard to the RFID pedestrian exit portals at the Nogales-Mariposa, Arizona, POE, it had constructed a new primary pedestrian exit walkway parallel to the existing pedestrian entry and had installed signage, sidewalks, and a new secure gate. We have amended the report to include information about the new pedestrian exit walkway. However, as we noted in our report, portals were installed only on one of the three pedestrian pathways used to exit the United States. According to a CBP official at the Nogales-Mariposa POE, the newly constructed pedestrian exit walkway is on the other side of the building from the pathway where the portal readers were placed and tested and thus would not mitigate the vulnerabilities we identified.

Finally, DHS provided other comments that we considered technical in nature. We have amended our report to incorporate these clarifications, where appropriate.

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As agreed with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after the issuance date of our original report, which, as discussed earlier, was classified For Official Use Only. At that time, we will provide copies of this report to appropriate departments and interested congressional committees. We will also make copies available to others upon request.

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<sup>64</sup>[GAO-03-171](#).

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In addition, this report will be available on GAO's Web site at <http://www.gao.gov>.

If you or your staff have any questions about this report or wish to discuss the matter further, please contact me at (202) 512-8777 or [stanar@gao.gov](mailto:stanar@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Major contributors to this report are listed in appendix IX.



Richard M. Stana  
Director, Homeland Security and Justice Issues

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*List of Requesters*

The Honorable Peter T. King  
Chairman

The Honorable Bennie G. Thompson  
Ranking Minority Member  
Committee on Homeland Security  
House of Representatives

The Honorable Robert Filner  
House of Representatives

The Honorable Raul M. Grijalva  
House of Representatives

The Honorable Ruben E. Hinojosa  
House of Representatives

The Honorable Solomon P. Ortiz  
House of Representatives

The Honorable Silvestre Reyes  
House of Representatives

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# Appendix I: Objective, Scope, and Methodology

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This report addresses the progress the Department of Homeland Security and U.S. Customs and Border Protection (CBP) have made in implementing the United States Visitor Status Indicator Technology (US-VISIT) program at existing land Ports of Entry (POE). Specifically, we analyzed the following issues: (1) What has the US-VISIT Program Office done to implement US-VISIT entry capabilities at land POEs and what impact has US-VISIT had on these facilities? (2) What is the status of US-VISIT Program Office efforts to implement a US-VISIT exit capability at land POE facilities? (3) What has DHS done to define a strategic context to show how US-VISIT entry and exit capabilities at land POE facilities fit with other current and emerging border security initiatives?

We performed our work at the Department of Homeland Security's US-VISIT Program Office and CBP. We also carried out work at 21 of 154 land POEs where US-VISIT entry capability had been installed. At 3 of these 21 land POEs, DHS was also testing exit capability. Table 3 shows the 21 land POEs we visited, by location and state, between August 2005 and February 2006.

**Table 3: Land POEs visited by GAO, August 2005 to February 2006**

<b>POE Name</b>	<b>Location</b>	<b>State</b>
Northern border		
Ambassador Bridge	Detroit	Mich.
Detroit-Windsor Tunnel		
Overton Corners	Rouses Point	N.Y.
St. John's Hwy.		
Thousands Island Bridge	Alexandria Bay	
Champlain		
Highgate Springs	Highgate Springs	Vt.
Alburg		
Peace Arch	Blaine	Wash.
Pacific Highway		
Southern border		
DeConcini	Nogales	Ariz.
Morley Gate		
Mariposa		
San Ysidro	San Diego	Calif.
Los Tomates	Brownsville	Tex.
Gateway		
Brownsville Matamoros Bridge		
Hidalgo	Hidalgo	
Progreso	Progreso	
Los Ebanos	Los Ebanos	
Pharr	Pharr	

Source: GAO.

In selecting land POEs to visit, we originally selected 10 land POEs on the northern border and 10 POEs on the southern border based on geographic dispersion along the border and taking into consideration POEs that were located near each other to minimize travel costs. We added the Morley Gate POE after we initially selected sites because it is physically located about 100 yards from the DeConcini POE in downtown Nogales (Ariz.) and after learning that US-VISIT was treating Morley Gate as a stand-alone

POE for US-VISIT deployment purposes.<sup>1</sup> In making our selections, we also considered US-VISIT deployment schedules, facility size, and the number of border crossings and I-94 issuances.<sup>2</sup> Fifteen of the 21 selected sites in our study were among the 50 busiest land POEs for which US-VISIT entry capability was to be operating by December 31, 2004, as required by law. The other 6 sites were among those remaining POEs where, according to law, US-VISIT entry capability was to be operating by December 31, 2005. While selecting sites, we also included the five POEs at which the US-VISIT program office was testing radio frequency identification (RFID) technology as part of a proof of concept for meeting US-VISIT exit capability requirements. These were: Blaine-Peace Arch; Blaine-Pacific Highway; Thousand Islands Bridge, Alexandria Bay; Nogales-Mariposa; and Nogales-DeConcini. The information from our site visits is limited to the 21 POEs we visited and is not generalizable to the remaining POEs.

To examine what the US-VISIT Program Office has done to implement US-VISIT entry capabilities at land POEs and what impact US-VISIT has had on these facilities, we interviewed US-VISIT and CBP headquarters officials as well as CBP officials at the 21 locations we visited. We obtained and analyzed available DHS reports on US-VISIT entry capability planning, deployment, and operations across land POEs, including the 21 we visited. At the 21 locations, we (1) discussed US-VISIT entry capability deployment at the facility, any facility-related barriers or constraints encountered during installation, and any operational issues encountered since and (2) obtained any available documentation about US-VISIT deployment and operations at the facility. We also toured secondary inspection at each facility to observe what US-VISIT equipment was installed, how it was installed, and where possible, how it operated when visitors covered by US-VISIT arrived at the facility for processing into the country. While doing our site visits, we met with US-VISIT and CBP officials at headquarters to discuss our field work; discern why problems we identified in the field may have occurred, and if problems occurred, gather and analyze available US-VISIT and CBP information about those

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<sup>1</sup>At the time we selected sites for review, we were unaware that the Morley Gate POE was being treated as a land POE separate from the other land POEs at Nogales. However, since US-VISIT treated Morley Gate as a separate POE for deployment, we also counted it as a stand alone POE.

<sup>2</sup>During fiscal year 2004, the number of I-94 issuances by the 21 selected sites ranged from 22 in Alburg Springs to about 398,900 in San Ysidro.

problems, including information on any corrective actions. We also examined whether internal or management controls were in place to alert officials to the problems we identified, and examined whether these controls were being applied, consistent with GAO's Standards for Internal Controls in the Federal Government.<sup>3</sup> In addition, we interviewed CBP and US-VISIT headquarters officials about plans for installing and operating new technology and equipment related to US-VISIT, such as 10-finger-scan readers, at land POEs; reviewed available DHS documents about plans to implement these devices; and reviewed available DHS documents that discussed performance measures for US-VISIT overall. We also reviewed applicable laws, regulations, and DHS federal register notices pertaining to US-VISIT entry capability deployment at land POEs, as well as reports prepared by DHS, GAO, the DHS Office of Inspector General, and the Congressional Research Service.

To determine the status of DHS's efforts to implement a US-VISIT exit capability at land POEs, we interviewed US-VISIT and CBP headquarters officials and CBP officials at the five locations where US-VISIT exit capability was being tested (Nogales-Mariposa, Nogales-DeConcini, Blaine-Pacific Highway, Blaine-Peace Arch, and Alexandria Bay). At each of the locations, we toured the areas where exit testing equipment and technology had been installed and discussed with CBP officials how it was installed and to be tested. We also reviewed applicable laws and regulations and obtained and analyzed available DHS reports on US-VISIT exit capability including an operational alternatives assessment; feasibility studies; and proof of concept performance evaluation and corrective action reports. Our analysis of these reports focused on DHS strategies for selecting, testing, acquiring, and evaluating alternative methods that could meet the requirements; DHS's criteria used to select and test the potential of RFID technology; and the challenges encountered, including any privacy issues associated with RFID use. Finally, we obtained and analyzed DHS reports on the costs of the equipment and related facility infrastructure, such as the metal gantry erected over roadways to hold RFID readers, to estimate what it would cost to install RFID equipment at all land POEs. We developed our overall estimate based on the average cost to date (about \$1 million each) of installing exit gantries and associated RFID equipment at the four POEs where gantries and equipment were installed. (Although RFID use was tested at five POEs, at the DeConcini POE in downtown Nogales, Arizona, the RFID readers were

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<sup>3</sup>See [GAO/AIMD-00-21.3.1](#) and [GAO-01-1008G](#).

placed on poles on either side of entry lanes, since all entering vehicles pass under a large permanent canopy structure that precludes installing a gantry. At the other four POEs, RFID readers were attached to metal gantries placed over roadway lanes.)

To examine what DHS has done to define a strategic context to show how US-VISIT entry and exit capabilities at land POE facilities fit with other current and emerging border security initiatives, we reviewed past GAO reports and public DHS announcements about the Western Hemisphere Travel Initiative and the Secure Border Initiative (SBI). We also interviewed DHS officials about the status of efforts to implement these initiatives as well as the status of efforts to develop and promulgate a strategic plan for US-VISIT and compared available information on DHS plans to implement initiatives with the results of our discussions with US-VISIT program officials.

We conducted our work from September 2005 through October 2006 in accordance with generally accepted government auditing standards.

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# Appendix II: Visa Waiver Countries

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The Department of State's (State) Visa Waiver Program (VWP) enables nationals of certain countries to travel to the United States for tourism or business for stays of 90 days or less without obtaining a visa. The program was established in 1986 with the objective of promoting better relations with U.S. allies, eliminating unnecessary barriers to travel, stimulating the tourism industry, and permitting the Department of State to focus consular resources in other areas. VWP eligible travelers may apply for a visa, if they prefer to do so. Not all countries participate in the VWP, and not all travelers from VWP countries are eligible to use the program. VWP travelers are screened prior to admission into the United States, and they are enrolled in the Department of Homeland Security's US-VISIT program. Currently, 27 countries participate in the Visa Waiver Program as shown in the following table.

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**Table 4: Countries Participating in the Visa Waiver Program**

Andorra	Iceland	Norway
Australia	Ireland	Portugal
Austria	Italy	San Marino
Belgium	Japan	Singapore
Brunei	Liechtenstein	Slovenia
Denmark	Luxembourg	Spain
Finland	Monaco	Sweden
France	The Netherlands	Switzerland
Germany	New Zealand	United Kingdom

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Source: Department of State.

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# Appendix III: Legislative Overview of the US-VISIT Program

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The Illegal Immigration Reform and Immigrant Responsibility Act of 1996 originally required the development of an automated entry and exit control system to collect a record of departure for every alien departing the United States and match the record of departure with the record of the alien's arrival in the United States; make it possible to identify nonimmigrants who remain in the country beyond the authorized period; and not significantly disrupt trade, tourism, or other legitimate cross-border traffic at land border ports of entry. It also required the integration of overstay information into appropriate databases of the INS and the Department of State, including those used at ports of entry and at consular offices. The system was originally to be developed by September 30, 1998; this deadline was changed to October 15, 1998, and was changed again for land border ports of entry and sea ports to March 30, 2001.

The Immigration and Naturalization Service Data Management Improvement Act (DMIA) of 2000 replaced the 1996 statute in its entirety, requiring instead an electronic system that would provide access to and integrate alien arrival and departure data that are authorized or required to be created or collected under law, are in an electronic format, and are in a data base of the Department of Justice or the Department of State, including those created or used at ports of entry and at consular offices. The Act specifically provided that it not be construed to permit the imposition of any new documentary or data collection requirements on any person for the purpose of satisfying its provisions, but it further provided that it also not be construed to reduce or curtail any authority of the Attorney General (now Secretary of Homeland Security) or Secretary of State under any other provision of law. The integrated entry and exit data system was to be implemented at airports and seaports by December 31, 2003, at the 50 busiest land ports of entry by December 31, 2004, and at all remaining ports of entry by December 31, 2005.

The DMIA also required that the system use available data to produce a report of arriving and departing aliens by country of nationality, classification as an immigrant or nonimmigrant, and date of arrival in and departure from the United States. The system was to match an alien's available arrival data with the alien's available departure data, assist in the identification of possible overstays, and use available alien arrival and departure data for annual reports to Congress. These reports were to include the number of aliens for whom departure data were collected during the reporting period, with an accounting by country of nationality; the number of departing aliens whose departure data was successfully matched to the alien's arrival data, with an accounting by country of nationality and classification as an immigrant or nonimmigrant; the

number of aliens who arrived pursuant to a nonimmigrant visa, or as a visitor under the visa waiver program, for whom no matching departure data have been obtained as of the end of the alien's authorized period of stay, with an accounting by country of nationality and date of arrival in the United States; and the number of identified overstays, with an accounting by country of nationality.

In 2001, the USA PATRIOT Act provided that, in developing the integrated entry and exit data system under the DMIA, the Attorney General (now Secretary of Homeland Security) and Secretary of State were to focus particularly on the utilization of biometric technology and the development of tamper-resistant documents readable at ports of entry. It also required that the system be able to interface with law enforcement databases for use by federal law enforcement to identify and detain individuals who pose a threat to the national security of the United States. The PATRIOT Act also required by January 26, 2003, the development and certification of a technology standard, including appropriate biometric identifier standards, that can be used to verify the identity of persons applying for a U.S. visa or persons seeking to enter the United States pursuant to a visa for the purposes of conducting background checks, confirming identity, and ensuring that a person has not received a visa under a different name. This technology standard was to be the technological basis for a cross-agency, cross-platform electronic system that is a cost-effective, efficient, fully interoperable means to share law enforcement and intelligence information necessary to confirm the identity of persons applying for a U.S. visa or persons seeking to enter the United States pursuant to a visa. This electronic system was to be readily and easily accessible to consular officers, border inspection agents, and law enforcement and intelligence officers responsible for investigation or identification of aliens admitted to the United States pursuant to a visa. Every 2 years beginning on October 26, 2002, the Attorney General (now Secretary of Homeland Security) and the Secretary of State were to jointly report to Congress on the development, implementation, efficacy, and privacy implications of the technology standard and electronic database system.

The Enhanced Border Security and Visa Entry Reform Act of 2002 required that, in developing the integrated entry and exit data system for the ports of entry under the DMIA, the Attorney General (now Secretary of Homeland Security) and Secretary of State implement, fund, and use the technology standard required by the USA PATRIOT Act at U.S. ports of entry and at consular posts abroad. The act also required the establishment of a database containing the arrival and departure data from

machine-readable visas, passports, and other travel and entry documents possessed by aliens and the interoperability of all security databases relevant to making determinations of admissibility under section 212 of the Immigration and Nationality Act. In implementing these requirements, the INS (now DHS) and the Department of State were to utilize technologies that facilitate the lawful and efficient cross-border movement of commerce and persons without compromising the safety and security of the United States and were to consider implementing a North American National Security Program, for which other provisions in the act called for a feasibility study.

The act, as amended, also established a number of requirements regarding biometric travel and entry documents. It required that not later than October 26, 2004, the Attorney General (now Secretary of Homeland Security) and the Secretary of State issue to aliens only machine-readable, tamper-resistant visas and other travel and entry documents that use biometric identifiers and that they jointly establish document authentication standards and biometric identifiers standards to be employed on such visas and other travel and entry documents from among those biometric identifiers recognized by domestic and international standards organizations. It also required by October 26, 2005, the installation at all ports of entry of the United States equipment and software to allow biometric comparison and authentication of all U.S. visas and other travel and entry documents issued to aliens and passports issued by visa waiver participants. Such biometric data readers and scanners were to be those that domestic and international standards organizations determine to be highly accurate when used to verify identity, that can read the biometric identifiers used under the act, and that can authenticate the document presented to verify identity. These systems also were to utilize the technology standard established pursuant to the PATRIOT Act.

The Intelligence Reform and Terrorism Prevention Act of 2004 did not amend the existing statutory provisions governing US-VISIT, but it did establish additional statutory requirements concerning the program. It described the program as an “automated biometric entry and exit data system” and required DHS to develop a plan to accelerate the full implementation of the program and to report to Congress on this plan by June 15, 2005. The report was to provide several types of information about the implementation of US-VISIT, including a “listing of ports of entry and other DHS and Department of State locations with biometric exit data systems in use.” The report also was to provide a description of the manner in which the US-VISIT program meets the goals of a

comprehensive entry and exit screening system, “including both entry and exit biometric;” and fulfills the statutory obligations imposed on the program by several laws enacted between 1996 and 2002. The act provided that US-VISIT “shall include a requirement for the collection of biometric exit data for all categories of individuals who are required to provide biometric entry data, regardless of the port of entry where such categories of individuals entered the United States.”

The new provisions in the 2004 act also addressed integration and interoperability of databases and data systems that process or contain information on aliens and federal law enforcement and intelligence information relevant to visa issuance and admissibility of aliens; maintaining the accuracy and integrity of the US-VISIT data system; using the system to track and facilitate the processing of immigration benefits using biometric identifiers; the goals of the program (e.g., serving as a vital counterterrorism tool, screening visitors efficiently and in a welcoming manner, integrating relevant databases and plans for database modifications to address volume increase and database usage, and providing inspectors and related personnel with adequate real time information); training, education, and outreach on US-VISIT, low risk visitor programs, and immigration law; annual compliance reports by DHS, State, the Department of Justice, and any other department or agency subject to the requirements of the new provisions; and development and implementation of a registered traveler program.

# Appendix IV: The 20 Busiest Land Ports of Entry (POE) by Volume of Individuals Entering the United States in Fiscal Year 2005

Rank Order	Name of Land POE	Location	State	Total Number of US and Foreign Entrants (Pedestrians and Vehicle Occupants)
1	San Ysidro	San Diego	Calif.	41,430,304
2	Calexico	Calexico	Calif.	16,418,744
3	Otay Mesa	Otay Mesa	Calif.	14,531,794
4	Bridge of Americas	El Paso	Tex.	14,229,629
5	Paso del Norte	El Paso	Tex.	13,443,901
6	Hidalgo	Hidalgo	Tex.	12,788,679
7	Nogales DeConcini	Nogales	Ariz.	12,425,006
8	Lincoln-Juarez Bridge	Laredo	Tex.	12,328,941
9	Niagara Falls <sup>a</sup>	Niagara Falls	N.Y.	9,656,444
10	San Luis	San Luis	Ariz.	9,017,655
11	Laredo Convent Bridge	Laredo	Tex.	8,376,604
12	Detroit-Ambassador Bridge	Detroit	Mich.	7,438,654
13	Douglas	Douglas	Ariz.	6,795,354
14	Peace Bridge	Buffalo	N.Y.	6,725,942
15	Brownsville-Gateway	Brownsville	Tex.	6,712,108
16	Ysleta	El Paso	Tex.	6,492,695
17	Calexico East	Calexico	Calif.	6,122,111
18	Detroit Tunnel	Detroit	Mich.	5,719,476
19	Port Huron	Port Huron	Mich.	5,080,176
20	Eagle Pass Intern Bridge II	Eagle Pass	Tex.	4,945,237

Source: CBP.

<sup>a</sup>This site comprises multiple POEs at this location.

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# Appendix V: Land Ports of Entry (POE) at Which US-VISIT Has Been Installed

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According to the US-VISIT program office, US-VISIT entry capability was installed at the following land POE by December 31, 2005. The list is arranged in state alphabetical order.

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## Alaska (3)

Alcan, Alcan  
Dalton's Cache, Dalton's Cache  
Skagway, Skagway

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## Arizona (8)

Douglas, Douglas  
Lukeville, Lukeville  
Nogales DeConcini  
Nogales Mariposa  
Morley Gate, Nogales  
San Luis, San Luis  
Sasabe, Sasabe  
Naco, Naco

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## California (6)

Andrade, Andrade  
Calexico East-Imperial Valley, Calexico  
Calexico West, Calexico  
Otay Mesa, Otay Mesa  
San Ysidro, San Ysidro  
Tecate, Tecate

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## Idaho (2)

Eastport, Eastport  
Porthill, Porthill

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## Maine (15)

Bar Harbor Ferry, Bar Harbor  
Bridgewater, Bridgewater  
Calais-Ferry Point Bridge, Calais  
Coburn Gore, Coburn Gore  
Eastport, Eastport  
Fort Fairfield, Fort Fairfield  
Fort Kent, Fort Kent  
Hamlin, Hamlin  
Houlton, Houlton  
Jackman, Jackman  
Limestone, Limestone

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Appendix V: Land Ports of Entry (POE) at  
Which US-VISIT Has Been Installed

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Lubec, Lubec  
Madawaska, Madawaska  
Van Buren, Van Buren  
Vanceboro, Vanceboro

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Michigan (6)

Detroit Ambassador Bridge, Detroit  
Detroit-Windsor Tunnel, Detroit  
Port Huron–Blue Water Bridge, Port Huron  
Sault Ste. Marie, Sault Ste. Marie  
Algonac Ferry, Algonac  
Marine City Ferry, Marine City

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Minnesota (8)

Baudette, Baudette  
Ely, Ely  
Grand Portage, Grand Portage  
International Falls, International Falls  
Lancaster, Lancaster  
Pine Creek, Roseau  
Roseau, Roseau  
Warroad, Warroad

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Montana (13)

Chief Mountain, Chief Mountain  
Del Bonita, Del Bonita  
Morgan, Loring  
Opheim, Opheim  
Piegan, Babb  
Raymond, Raymond  
Roosville, Roosville  
Scobey, Scobey  
Sweetgrass, Sweetgrass  
Turner, Turner  
Willow Creek, Turner  
Wild Horse, Havre  
Whitetail, Whitetail

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New Hampshire (1)

Pittsburg, Pittsburg

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**Appendix V: Land Ports of Entry (POE) at  
Which US-VISIT Has Been Installed**

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**New Mexico (3)**

Antelope Wells, Antelope Wells  
Columbus, Columbus  
Santa Teresa, Santa Teresa

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**New York (16)**

Cape Vincent Ferry, Cape Vincent  
Champlain, Champlain  
Chateaugay, Chateaugay  
Fort Covington, Fort Covington  
Heart Island Ferry, Alexandria Bay  
Massena, Rooseveltown  
Mooers, Mooers  
Niagara (Lewiston-Queenston, Whirlpool, and Rainbow Bridges), Niagara Falls  
Niagara Falls Amtrak Station, Niagara Falls  
Ogdensburg, Ogdensburg  
Overton Corners, Champlain  
Peace Bridge, Buffalo  
Rochester Ferry, Rochester  
Rouses Point, Rouses Point  
Thousand Islands Bridge, Alexandria Bay  
Trout River, Trout River

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**North Dakota (18)**

Ambrose, Ambrose  
Antler, Antler  
Carbury, Carbury  
Dunseith, Dunseith  
Fortuna, Fortuna  
Hannah, Hannah  
Hansboro, Hansboro  
Maida, Maida  
Neché, Neche  
Noonon, Noonan  
Northgate, Northgate  
Pembina, Pembina  
Portal, Portal  
Sarles, Sarles  
Sherwood, Sherwood  
St. John, St. John  
Walhalla, Walhalla  
Westhope, Westhope

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**Appendix V: Land Ports of Entry (POE) at  
Which US-VISIT Has Been Installed**

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Ohio (1)

Jackson Street Pier Ferry, Akron

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Texas (25)

Amistad Dam, Amistad Village  
Bridge of the Americas/Cordova Bridge, El Paso  
Brownsville-Gateway  
Brownsville-Los Tomates/Veterans International Bridge  
Brownsville-Matamoros Bridge  
Columbia Solidarity Bridge, Laredo  
Convent Street (or Gateway to the Americas International Bridge), Laredo  
Del Rio International Bridge, Del Rio  
Eagle Pass Bridge I, Eagle Pass  
Eagle Pass Bridge II, Eagle Pass  
Fabens, Fabens  
Falcon Heights, Falcon Heights  
Fort Hancock, Fort Hancock  
Gateway International Bridge, Brownsville  
Hidalgo, McAllen  
Lincoln-Juarez Bridge, Laredo  
Los Ebanos Ferry, Los Ebanos  
Los Indios, Los Indios  
Paso del Norte Bridge, El Paso  
Pharr, Pharr  
Presidio, Presidio  
Progreso, Progreso  
Rio Grande City, Rio Grande City  
Roma, Roma  
World Trade Bridge, Laredo  
Ysleta-Zaragoza Bridge, El Paso

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Vermont (14)

Alburg Springs, Alburg Springs  
Alburg, Alburg  
Beebe Plain, Beebe Plain  
Beecher Falls, Beecher Falls  
Canaan, Canaan  
Derby Line, Derby Line, I-91  
Derby Line, Derby Line, Rte 5  
East Richford, East Richford  
Highgate Springs, Highgate Springs  
Morses Line, Morses Line  
North Troy, North Troy  
Norton, Norton

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**Appendix V: Land Ports of Entry (POE) at  
Which US-VISIT Has Been Installed**

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Richford, Richford  
Richford/Pinnacle, Richford  
West Berkshire, West Berkshire

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**Washington (13)**

Blaine-Pacific Highway, Blaine  
Blaine-Peace Arch, Blaine  
Boundary, Boundary  
Danville, Danville  
Ferry, Ferry  
Frontier, Frontier  
Laurier, Laurier  
Lynden, Lynden  
Metaline Falls, Metaline Falls  
Nighthawk, Nighthawk  
Oroville, Oroville  
Point Roberts, Point Roberts  
Sumas, Sumas

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**Canada (1)**

Vancouver Amtrak Station

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# Appendix VI: Actions Taken by US-VISIT Program Office to Mitigate Privacy Risks Associated with RFID at Land POEs

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Protecting the privacy of visitors to the United States is one of the four stated primary mission goals of the US-VISIT program. We and others have raised questions in recent years about the potential privacy risks surrounding the use of RFID technology to track the movement of persons, as opposed to goods; the potential for the technology to be subverted for surveillance purposes, rather than identification; and the potential for “function creep,” whereby information collected for one purpose gradually develops other secondary uses, such as has occurred with Social Security numbers.<sup>1</sup> In congressional testimony, we have noted that the use of RFID tags and associated databases raises important security considerations related to the confidentiality, integrity, and availability of the data on the tags and in the databases, and in how this information is being protected.<sup>2</sup> We have noted, as well, that while the federal government had begun using RFID technology for a variety of applications—to track and identify assets, weapons, and baggage on flights, for example—using this technology for generic inventory control did not raise the same privacy issues as using it to track the movement of persons.<sup>3</sup>

The US-VISIT Program Office has taken steps to meet statutory and congressional requirements protecting the privacy of individuals who would be affected if RFID technology were to be implemented as part of the US-VISIT exit and re-entry process, and to address the privacy concerns raised by us and others. According to OMB guidance,<sup>4</sup> a privacy impact assessment should be conducted before an agency develops or procures an information technology system, such as the proposed RFID system, which collects, maintains, or disseminates information about an individual—in this case, numeric information that may be linked to biographic information contained within databases. In January 2004, DHS

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<sup>1</sup>GAO, *Privacy: Key Challenges Facing Federal Agencies*, [GAO-06-777T](#) (Washington, D.C.: May 17, 2006). See also, Electronic Frontier Foundation, letter of 4 April, 2005, to U.S. Department of State ([http://www.eff.org/Privacy/Surveillance/RFID/RFID\\_passport.pdf](http://www.eff.org/Privacy/Surveillance/RFID/RFID_passport.pdf)); and Juels, Ari; Molnar, David; and Wagner, David, *Security and Privacy Issues in E-passports*, Cryptology ePrint Archive: Report 2005/095 (<http://eprint.iacr.org/2005/095>).

<sup>2</sup>GAO, *Information Security: Key Considerations Related to Federal Implementation of Radio Frequency Identification Technology*, [GAO-05-849T](#) (Washington, D.C.: May 22, 2005).

<sup>3</sup>GAO, *Information Security: Radio Frequency Identification Technology in the Federal Government*, [GAO-05-551](#) (Washington, D.C.: May 27, 2005).

<sup>4</sup>OMB M-03-22, *Memorandum for Heads of Executive Departments and Agencies, OMB Guidance for Implementing the Privacy Provisions of the E-Government Act of 2002*.

published a Privacy Impact Assessment in the Federal Register, as required by law, for the initial deployment of US-VISIT, and published the latest in a series of updated Privacy Impact Assessments in July 2005, addressing privacy issues related to the proof-of-concept testing of RFID for Increment 2C.<sup>5</sup>

In its July 2005 Privacy Impact Assessment, DHS said that by design, the information embedded in the RFID-readable I-94 tag does not compromise a visitor's security, for the following reasons and with the following strictures:

- Passive RFID minimizes privacy impacts and reduces the chance of visitors being surreptitiously tracked because it does not constantly transmit information or “beacon” a signal.
- The numeric identifier read in the I-94 tag does not contain and is not derived from any personal information, and can only be used to obtain personal information when combined with data within the Automated Identification Management System (the system created to link the unique RFID tag ID number to existing biographic information received from the TECS database).
- The Automated Identification Management System records the exit and re-entry data automatically captured for a particular RFID tag, rather than a specific individual. The individual's complete travel history is created only when the information captured from the RFID tag is sent along with the biographic information stored in the TECS database to a DHS Arrival and Departure Information System.
- The Automated Identification Management System is undergoing the DHS certification and accreditation process, which includes having an approved detailed security plan and a comprehensive technical assessment of the risks of operating the system. The certification and accreditation process will be completed before the proof-of-concept becomes operational.
- The Automated Identification Management System database can only be accessed by authorized personnel signed into authorized workstations that communicate with the system via a secure network. These computer workstations are generally in CBP POE buildings, inside work areas with physical controls over who can enter the area, according to the Privacy Impact Assessment, and each POE is required

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<sup>5</sup>An updated Privacy Impact Assessment was also published in September 2004 to reflect inclusion of Visa Waiver Program visitors in US-VISIT, expansion of US-VISIT to the 50 busiest land POEs, and changes in the business processes used by DHS to share information with federal law enforcement agencies.

to be in compliance with DHS regulations with regard to security. Even if an RFID tag number were secretly detected by someone, that person would also have to obtain access to the Automated Identification Management System secure database, to link the number to an individual's records.

DHS acknowledged that two potential privacy risks related to the RFID exit/re-entry solution have been identified, and that US-VISIT creates a pool of individuals whose personal information is at risk. Nevertheless, it is stated in the July 2005 Privacy Impact Assessment that the privacy risks will either be avoided or mitigated through the use of access controls, education and training, encryption, and minimizing collection and use of personal information will mitigate privacy risks associated with data sharing. The first stated risk is that, if the format or some other characteristic of the RFID tag number renders it recognizable as a US-VISIT RFID tag, this would allow an unauthorized reader to surreptitiously determine an individual's status (i.e., within US-VISIT covered population). DHS stated that the RFID tag number will be structured so that it cannot be used to identify an individual specifically as a nonimmigrant. Second, DHS noted there is a low risk that the RFID tag could be used to conduct surreptitious locational surveillance of an individual; i.e., to use the presence of the tag to follow an individual as he or she moves about in the United States. However, ensuring that RFID tag numbers do not exhibit properties that can be readily attributed to US-VISIT and using a limited radio frequency range effectively mitigates this risk, according to DHS.

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# Appendix VII: US-VISIT Test of Radio Frequency Identification (RFID) Readers Upon Exit and Re-entry at Selected Land POEs

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The US-VISIT Program Office has been testing the use of passive, automated, radio frequency identification (RFID) technology as a means to record the exit of visitors from the United States at land POEs. RFID is an automated data-capture technology that can be used to electronically store information contained on a very small tag that can be embedded in a document (or some other physical item); in this case, US-VISIT embedded the tag in a modified Form I-94, called an I-94A. This information can then be identified, and recorded as having been identified, by RFID readers that are connected to computer databases. The RFID tests were conducted for one-week periods at land POEs, as follows:<sup>1</sup> vehicular traffic was tested at Nogales-Mariposa and Nogales-DeConcini POEs in Nogales, Arizona; the Blaine-Pacific Highway and Blaine-Peace Arch POEs in Blaine, Washington; and Thousand Islands Bridge POE in Alexandria Bay, New York; pedestrian traffic was tested at the Nogales-Mariposa and Nogales-DeConcini POEs.

For these exit tests, the US-VISIT Program Office developed critical success factor target read rates to compare them to the actual read rates obtained during the test for both pedestrians carrying I-94As with RFID-detectable tags and for travelers in vehicles who also had RFID-detectable I-94As with them inside the vehicles. The target exit read rates ranged from an expected success rate of 70 percent to 95 percent, based on anticipated performance under different conditions, partly as demonstrated in the earlier feasibility study, on business requirements, and on a concept of operation plan prepared for Increment 2C.<sup>2</sup> Table 5 shows the exit test results compared to the target read rates, reflecting specifically the percentage of persons detected by the readers who were carrying RFID-detectable documents for (1) pedestrians and (2) persons in vehicles, as they passed through the POE area, while exiting the country.

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<sup>1</sup>Site selection factors included potential physical constraints, such as protected historic structures that could hamper installation of gantries; potential environmental impact; daily traffic and I-94A processing volume; speed limits; and weather conditions.

<sup>2</sup>A concept of operations defines how day-to-day operations are (or will be) carried out to meet mission needs. The concept of operations includes high-level descriptions of information systems, their interrelationships, and information flows. It also describes the operations that must be performed, who must perform them, and where and how the operations will be carried out.

**Appendix VII: US-VISIT Test of Radio Frequency Identification (RFID) Readers Upon Exit and Re-entry at Selected Land POEs**

**Table 5: RFID Read Rate Test Results for Persons in Vehicles and Pedestrians Exiting the Country with RFID-Readable Documents**

Type of test	Location of test	Critical Success Factor Target Rate (%)	Actual Read Rate (%)	Sample Size (vehicles or pedestrians)
Pedestrian Exit	Nogales-Mariposa	95	67	3 <sup>a</sup>
Vehicle Exit	Blaine-Pacific Highway	70	14	166
	Thousand Islands Bridge at Alexandria Bay	70	4	50

Source: US-VISIT Program Office

<sup>a</sup>Because of the small number of pedestrians carrying RFID readable documents in the test, any findings should be interpreted with caution.

In phase 1 of proof-of-concept testing for RFID, US-VISIT reported that read rates were higher for both vehicle occupants and pedestrians who held the I-94A up toward the reader, rather than leaving it inside a pocket. Through the use of billboards, radio and print advertisements, and other methods of communication, visitors were encouraged to place their RFID-detectable I-94A forms on the vehicle dashboard or up to a window. These locations were believed to increase the chances for a successful read. Those who took these actions were referred to as “participants,” and those who did not as “nonparticipants.” The US-VISIT Program Office reported that during the week-long proof-of-concept exit testing, one of the three pedestrians was a participant—that is, the individual was observed as voluntarily complying with the instructions; for those exiting in a vehicle, these data were not reported. Moreover, although CBP officials made substantial pre-test efforts to encourage travelers to optimize the chances of I-94A tags being read, the report noted that this effort apparently met with mixed success and that no additional solutions were planned.

During the time period that US-VISIT tested the performance of RFID readers for detecting I-94As carried by persons exiting the country in vehicles at two land POEs (Thousand Islands Bridge, Alexandria Bay, New York and Blaine-Pacific Highway, Washington), it also tested RFID reader performance for persons in vehicles with RFID-embedded I-94As who re-entered the country at both of these locations and three others (Blaine-Peace Arch, Washington; and, in Arizona, Nogales-Mariposa and Nogales-DeConcini). In addition, tests of RFID detectability carried by pedestrians re-entering the country were conducted at Nogales-Mariposa, and Nogales-DeConcini; pedestrian exit was tested only at Nogales-Mariposa because

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**Appendix VII: US-VISIT Test of Radio  
Frequency Identification (RFID) Readers  
Upon Exit and Re-entry at Selected Land  
POEs**

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of operational constraints at Nogales-DeConcini, according to the report on the tests. Since persons re-entering the country with a RFID-enabled I-94 would already have obtained an I-94A on a prior visit to the United States, in order for it to be detected by an RFID reader, this process is sometimes referred to by the US-VISIT program office as “re-entry.”

DHS set separate, higher critical success factors (performance targets) for the RFID proof-of-concept tests for the vehicle re-entry process than for the vehicle exit process. According to a US-VISIT official, these higher performance targets were based, in part, on the fact that vehicles must stop as part of the re-entry process, which makes it more likely that a tag will be detected than is the case for exiting vehicles, which do not need to slow down or stop at land POEs.<sup>3</sup> As with the tests conducted for exit, test observers monitored traveler behavior to see whether, in compliance with numerous advertisements in print and on local radio, the vehicle driver placed the RFID-enabled I-94A on the vehicle dashboard or on an empty passenger seat, or, for vehicle occupants, if they held the I-94A up to a window or who made it otherwise visible, to better enable detection it by the reader. Vehicle drivers or occupants who displayed an I-94A in any of these requested ways were categorized as “participants,” but read rates for them were, nevertheless, low at four of five test locations. For example, at Nogales-DeConcini, which had the lowest vehicle-entry read rates overall, the read rate was 27 percent for the 62 persons re-entering in vehicles with visitors whom US -VISIT reported as making an effort to have their I-94A tags read. In contrast, at Nogales-Mariposa, which had the highest overall re-entry read rate for the vehicle test, US-VISIT reported that 83 out of 96 (86 percent) of travelers who were categorized as participants were detected. Among those at this same location who did not make this effort, US-VISIT reported that I-94s with RFID tags were detected for about half (51 percent) of the persons in the vehicles. Table 6 shows the results of RFID read-rates upon re-entry for vehicle participants and nonparticipants.

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<sup>3</sup>According to a program official involved in setting the target rates, the read rates expected for vehicles entering the country were also expected to be lower than for pedestrians because of potential interference from metal in vehicles.

**Appendix VII: US-VISIT Test of Radio  
Frequency Identification (RFID) Readers  
Upon Exit and Re-entry at Selected Land  
POEs**

**Table 6: RFID Test Read Rates for Persons Re-Entering the Country in Vehicles at Locations Where US-VISIT Tested RFID Technology**

Type of test	Target read rate (%)	Nogales-Mariposa: Percent and Number	Nogales-DeConcini: Percent and Number	Blaine-Pacific Highway: Percent and Number	Blaine-Peace Arch: Percent and Number	Thousand Islands Bridge: Percent and Number
Vehicle entry	80	P: 86% (83/96)	P: 27% (17/62)	P: 45% (13/29)	P: 55% (18/33)	P: 33% (3/9)
		N: 51% (101/199)	N: 11% (25/236)	N: 14% (15/110)	N: 19% (14/72)	N: 67% (2/3)
		C: 62% (184/295)	C: 14% (425/298)	C: 20% (28/139)	C: 30% (32/105)	C: 42% (5/12)

Source: US-VISIT Program Office

P: Participants: those vehicle drivers who placed the I-94A form either on the dashboard, or on an empty seat; vehicle occupants who held the I-94A up to a window or who placed it on the dashboard or who made it otherwise visible.

N: Non-participants: Vehicle drivers and occupants who did not appear to comply with any of the specified modes of making the I-94A visible.

C: Combined read rate for participants and nonparticipants.

Table 7 shows the results of RFID read-rate detection upon re-entry for pedestrian participants and nonparticipants.

**Table 7: RFID Test Read Rates for Pedestrians Re-entering the Country at Locations Where US-VISIT Tested RFID Technology**

Type of test	Target read rate (percent)	Nogales-Mariposa: Percent and Number <sup>a</sup>	Nogales-DeConcini: Percent and Number <sup>a</sup>	Blaine-Pacific Highway: Percent and Number	Blaine-Peace Arch: Percent and Number	Thousand Islands Bridge: Percent and Number
Pedestrian entry	95	P: 100% (1 out of 1)	P: 84% (32/38)	No data	No data	No data
		N: 50% (6/12)	N: 68% (179/264)			
		C: 54% (7/13)	C: 70% (211/302)			

Source: US-VISIT Program Office

<sup>a</sup>Because of the small number of pedestrians that participated in the test, any findings should be interpreted with caution.

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**Appendix VII: US-VISIT Test of Radio  
Frequency Identification (RFID) Readers  
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**Note:**

P is participants; defined as those pedestrians who held the I-94A form so that it was out and visible upon entering the processing area.

N is non-participants; defined as those pedestrians who did not hold the I-94A form in such a way that it was visible.

C: Combined read rate for participants and nonparticipants

# Appendix VIII: Comments from the U.S. Department of Homeland Security

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



**Homeland  
Security**

October 31, 2006

Mr. Richard M. Stana  
Director  
Homeland Security and Justice Issues  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Mr. Stana:

RE: Draft Report GAO-07-56, Border Security: US-VISIT Program Faces Strategic, Operational, and Technological Challenges at Land Ports of Entry (GAO Job Code 440427)

Department of Homeland Security (DHS) officials appreciate the opportunity to review and comment on the draft report referenced above. The Government Accountability Office (GAO) makes two recommendations with which we generally agree. While we largely agree with GAO on many of the findings, there are some findings with which we disagree. Our attachment includes some clarifications and other comments that we consider more than technical.

We appreciate the time GAO has taken to review the United States Visitor and Immigrant Status Indicator Technology (US-VISIT) Program's ability to collect, maintain, and share data on selected foreign nationals entering and exiting the United States at air, sea, and land ports of entry (POEs). US-VISIT represents the greatest advancement in border technology in three decades. DHS established US-VISIT to enhance the safety of our citizens and visitors, facilitate legitimate travel and trade, enhance the integrity of our immigration system, and protect the privacy of travelers to the United States. In the three years since its inception, US-VISIT has processed over 70 million visitors at ports of entry, linking together systems from DHS and the Departments of State and Justice. In FY 2005, US-VISIT was successfully deployed at 154 land border ports of entry, with the majority of ports reporting improved process times. Even with US-VISIT's increased security checks, travelers have not been significantly inconvenienced. In fact, wait times for Form I-94 (Arrival-Departure Form) issuance at land border ports of entry have gone down, and surveys from travelers show that the vast majority do not object to US-VISIT's biometric procedures.

For all the successes of US-VISIT, Department officials agree that we need to improve existing management controls associated with US-VISIT, develop performance measures to assess the impact of US-VISIT operations at land POEs, and ensure that the statutorily mandated report mentioned in the draft report describes how DHS will move to a biometric entry/exit capability and align US-VISIT with emerging land border security initiatives. DHS officials have already established a great deal of the foundation for meeting future challenges.

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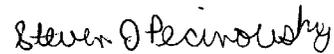
**Appendix VIII: Comments from the U.S.  
Department of Homeland Security**

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Customs and Border Protection (CBP) officials will support US-VISIT program officials as they implement the first recommendation. In addition, CBP personnel have resolved the computer problems noted in the draft report, implemented preliminary monitoring of the system, and have established a working group to determine how to implement detailed monitoring of all applications including US Arrival and US Pedestrian at land border ports of entry.

Comments associated with our "sensitivity review" will be provided under separate cover.

Sincerely,



Steven J. Pecinovsky  
Director  
Departmental GAO/OIG Liaison Office

Attachment

**DHS/US-VISIT Clarifications and Other Comments Associated with GAO's Draft Report Findings/Observations**

**1. GAO Highlights page, second paragraph:** "An interim non-biometric exit technology being tested does not meet the statutory requirement for a congressionally mandated biometric exit capability and cannot ensure that visitors who enter the country are those who leave." **DHS/US-VISIT clarification:** The interim solution (Passive RF embedded I-94) was used because industry was not to the point of developing a biometric exit device that could satisfy mission requirements such as not impacting traffic flow and not having safety impacts. This position is also reflected in operational alternatives documentation. Subsequent research and industry outreach will be performed so that DHS/US-VISIT officials can satisfy the biometric exit mandate.

**2. Page 5, Results in Brief:** GAO infers that US-VISIT has not adequately evaluated the impact of the 2- to 10-print digital scanning effort. **US-VISIT response:** US-VISIT officials have recognized that this transition has a high likelihood of impacting port facilities and US-VISIT personnel have taken significant steps to work with industry to speed up processing time and to miniaturize the current 10-print capture devices in an attempt to eliminate and/or significantly reduce the impact of deploying 10-print scanning.

**3. Page 6: US-VISIT comment:** The language implies that US-VISIT personnel did not fully consider the impact [of US-VISIT] on the overall operations at the land POEs. According to US-VISIT officials, the US-VISIT touch point in land border operations is in fact limited to changes in I-94 processing time; the other factors related to port secondary capacity, staffing and traveler throughput are constant regardless of whether US-VISIT had been implemented. For example, the lack of available port secondary parking due to CBP processing of increased numbers of applicants for admission is not a symptom of US-VISIT, (in fact in many cases US-VISIT decreased the processing time for I-94 issuance), but is indicative of an increase in traffic and/or policy changes as to what traveler population requires secondary processing. These factors are arguably beyond the scope of US-VISIT and are more appropriately addressed through a larger evaluation as to whether or not current port facilities and staff are adequate to meet mission requirements. It should also be noted that the I-94 process is one of many steps, each of which may impact overall wait times. A similar discussion appears on page 32.

**4. Page 14: US-VISIT clarification/comment:** The statutory mandates regarding biometric screening only applies to aliens and not U.S. citizens. On pages 14 and 15, in the text preamble to the pie charts [on page 16], GAO states that most land border crossers are, by regulation, exempt from US-VISIT screening and U.S. citizens are included in this group. Regulations flow from statutory language and US-VISIT currently has no statutory mandate to screen U.S. citizens. GAO should re-draft any chart (and explanatory text) that includes U.S. citizens as part of the calculation of percentage of persons screened by US-VISIT.

**5. Page 16: US-VISIT comment:** Crossing statistics appear misleading in the report. For example, where GAO offers its first set of pie charts on the number of persons processed via US-VISIT, the charts have included U.S. citizens in the total numbers. This offers the uninformed

reader misleading percentage data regarding the sets of people US-VISIT is authorized to screen biometrically at the land ports of entry.

**6. Page 26: U.S. VISIT comment:** The report presents conflicting positions on the benefits realized from US-VISIT deployments. In several locations the narrative notes that the capabilities provided by US-VISIT are recognized as providing efficiencies to the I-94 process (as supported by US-VISIT performance evaluations). In other sections (e.g., page 26) there are statements that the capabilities have added to the time required to process visitors. It is implied the additional time resulted in turning visitors away at the border. US-VISIT officials believe that the capabilities deployed have reduced the time required to process an I-94, and officials have validated this position with performance evaluations. Statements of increased time, based on the inclusion of factors outside of the I-94 issuance process, are not an accurate analysis of the operations at the POE. The concerns listed by the San Ysidro offices are indicative of staffing and facilities capacity factors, that were likely due to fully implementing national policy guidelines as to which traveler populations require secondary processing. These guidelines were not changed as a result of the implementation of US-VISIT.

**7. Page 50:** “US-VISIT reported that while the placement of the portal readers will not be changed, it is taking steps to improve the likelihood of detection with additional antennae, readers, and signage. However, there are no plans at present to modify the existing POE infrastructure...” **US-VISIT comment:** A new pedestrian walkway was constructed parallel to the existing pedestrian entry. Signage, sidewalks and a new secure roto-gate were installed to serve as the primary pedestrian exit walkway.

**8. Page 53:** “According to the US-VISIT Chief Strategist, the Program Office drafted in March 2005 a strategic plan that showed how US-VISIT would be strategically aligned with DHS’s organizational mission and also defined an overall vision for immigration and border management.” GAO then has a footnote (number 59) saying, “This plan is distinct from the legislatively mandated plan that is to describe a comprehensive US-VISIT entry/exit screening system.” **US-VISIT comments:** There is just one plan – not two. The GAO language implies that there is more than one plan. US-VISIT began working on a strategic plan in late 2004 and finished it in March 2005. The Intel Reform Act of 2004, in section 7208(c), called for DHS to submit a plan to Congress on the current functionality of the entry/exit system, as well as a plan for how the Secretary intends to expedite full deployment. As part of the US-VISIT response to this report requirement, US-VISIT officials included the Executive Summary of the Strategic Plan to explain how entry/exit works across the entire border and immigration enterprise.

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# Appendix IX: GAO Contact and Acknowledgments

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## GAO Contact

Richard M. Stana (202) 512-8777

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## Acknowledgments

In addition to the above, John F. Mortin, Assistant Director; Amy Bernstein, Frances Cook, Odi Cuero, Richard Hung, Amanda Miller, James R. Russell, and Jonathan Tumin made key contributions to this report.

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