# IMPLEMENTATION OF AN ENTRY-EXIT SYSTEM: STILL WAITING AFTER ALL THESE YEARS

## HEARING

BEFORE THE

## COMMITTEE ON THE JUDICIARY
## HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRTEENTH CONGRESS

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NOVEMBER 13, 2013

# IMPLEMENTATION OF AN ENTRY-EXIT SYSTEM: STILL WAITING AFTER ALL THESE YEARS

**WEDNESDAY, NOVEMBER 13, 2013**

HOUSE OF REPRESENTATIVES
COMMITTEE ON THE JUDICIARY
*Washington, DC.*

The Committee met, pursuant to call, at 10:20 a.m., in room 2141, Rayburn Office Building, the Honorable Bob Goodlatte (Chairman of the Committee) presiding.

Present: Representatives Goodlatte, Coble, Smith of Texas, Chabot, Bachus, King, Gohmert, Poe, Chaffetz, Marino, Gowdy, Labrador, Farenthold, Holding, Conyers, Scott, Watt, Lofgren, Jackson Lee, Johnson, Chu, Gutierrez, DelBene, Garcia, and Jeffries.

Staff present: (Majority) Shelley Husband, Chief of Staff & General Counsel; Branden Ritchie, Deputy Chief of Staff & Chief Counsel; Allison Halataei, Parliamentarian & General Counsel; Dimple Shah, Counsel; Kelsey Deterding, Clerk; (Minority) Perry Apelbaum, Minority Staff Director & Chief Counsel; Danielle Brown, Parliamentarian; Tom Jawetz, Counsel.

Mr. GOODLATTE. Good morning. The Judiciary Committee will come to order. Without objection, the Chair is authorized to declare recesses of the Committee at any time.

I will begin with my opening statement.

Successful immigration reform must address effective interior enforcement. An important component of interior enforcement is dealing with legal immigrants who violate the terms of their visas and thus become unlawfully present in the United States.

The Illegal Immigration Reform and Immigrant Responsibility Act of 1996 first required the creation, within 2 years of the date of enactment, of an automated system to track the entry and exit of all travelers to and from the United States. Since that time, Congress has reiterated and expanded on this requirement over half a dozen times, mandating an exit monitoring system at all air, land, and sea ports of entry.

In 2004, Congress added the requirement that the exit program be implemented using biometric technology. Yet despite numerous pieces of legislation enacted by Congress, these statutorily mandated requirements have never been implemented by either present or past Administrations.

In the meantime, numerous estimates indicate that as many as 40 percent of all individuals unlawfully present in the United States entered the country legally and violated the terms of their visas by overstaying. To make matters worse, in July of 2013 the General Accountability Office found that the Department of Homeland Security has more than 1 million unmatched arrival records; that is, arrival records for which the DHS does not have a record of departure or status change.

The ability to effectively track who arrives in and subsequently departs from the United States is a necessary first step for immigration reform. An effective exit tracking program must help identify all of those who arrived lawfully but remain in the U.S. in violation of the law.

To compound matters, experts say that terrorist overstays are also a significant issue which under the current system can be tracked down only through difficult, tedious, and time-consuming investigations. Recent reports indicate that terrorist overstays include Hosan Smadi, a Jordanian national who plotted to blow up a Dallas skyscraper in 2009, and Amine El Khalifi, a Moroccan whose visa expired in 1999 and who was arrested in an attempt to bomb the U.S. Capitol in 2012.

Not having an exit system in place led the former commissioners of the 9/11 Commission to conclude in 2011 that, "The Department of Homeland Security, properly supported by the Congress, should complete, as quickly as possible, a biometric entry-exit screening system. As important as it is to know when foreign nationals arrive, it is also important to know when they leave. Full deployment of the biometric exit should be a high priority. Such a capability would have assisted law enforcement and intelligence officials in August and September 2001 in conducting a search for two of the 9/11 hijackers who were in the United States on expired visas."

Seventeen years after Congress required an entry-exit system, no exit system is in place. This Administration and past Administrations had plenty of time to get this done, yet they continue to make excuses as to why it cannot be completed. In fact, this Administration has openly violated the law.

The Department of Homeland Security has moved to implement biographic exit contrary to law even though former Department of Homeland Security Secretary Janet Napolitano told the GAO that she has no confidence in the current biographic data system. Biographic systems are especially vulnerable to fraud.

Unfortunately, not only does the Administration continue to ignore statutory mandates, but numerous congressional proposals actually seek to roll back current law with respect to a biometric exit system at all ports of entry. For example, the Senate bill erodes enforcement mechanisms in current law by requiring biometric exit initially at the top 10 international airports and a total of only 30 airports within 6 years, although there are 74 international airports in the United States and 34 international seaports. The bill does not even address land and sea ports.

It is estimated that the majority of the millions of people who come to the United States each year come through the land ports of entry, and the GAO found that roughly one-third of all overstayers came through land ports of entry. No single proposal effec-

tively addresses this issue with the exception of H.R. 2278, the SAFE Act. Mr. Gowdy's bill, via Mr. Smith's amendment, contains the only language that requires a biometric entry-exit system at all ports of entry within a definite time period. In order to be effective, any entry-exit provisions must have a definite and prompt timeframe for total implementation. If not, we will send the message that Congress is not serious.

The SAFE Act shows how to avoid the mistakes of the past with regard to immigration law enforcement. I look forward to hearing from all of our witnesses today and thank Mr. Gowdy for introducing this game-changing legislation, and Mr. Smith for his crucial amendment to reassert that Congress is serious about ensuring a fully functioning exit system at all ports of entry.

It is now my pleasure to recognize the Ranking Member of the Committee, the gentleman from Michigan, Mr. Conyers, for his opening statement.

Mr. CONYERS. Thank you, Chairman Goodlatte.

Members of the Committee, we are here today to find out and learn what the Department of Homeland Security is doing to implement a system that tracks who enters our country and who leaves our country. We are pleased to have the Assistant Secretary for Policy of the Department here with us.

The Department is required by law to establish an entry-exit system that relies upon the collection of biometric data. Many of my colleagues are frustrated that the system, particularly the biometric exit system, is not yet in place.

Nevertheless, we should recognize that today we are more able than ever to screen people who are applying for visas or requesting entry into our country. We now collect fingerprints from people at each of these stages, and we have a biometric entry system at our land, sea, and airports. We are also better able to confirm whether people have left the country or overstayed their visas. Airlines share information from passenger and crew manifests before aircraft doors are secured.

So we have a pretty good idea who is on an international flight before the plane leaves the gate, and we can now use that information to identify people who have overstayed their visas and to run that information through our various security checks.

We also have a very productive exchange of information with Canadian authorities that helps us identify exits along our northern land border.

But, of course, there is still more that can be done, and that is why today's hearing allows us to hear from the Department of Homeland Security itself, as well as other witnesses who will share their perspectives on the topic.

But I have to observe one thing before I yield back my time. It is now the middle of November, and the House of Representatives has done almost nothing to fix our broken immigration system. The Senate passed S. 744, a bipartisan immigration reform bill, in June, 139 days ago. Republican leadership in the House called it "dead on arrival." Our colleague, Joe Garcia of this Committee, introduced another bill, H.R. 15, last month, and already the bill, to date, has 191 co-sponsors. Republican leadership has pledged to take no action on the bill. And now press reports that Republican

leadership intends to bring no immigration bill to the floor before the end of the year because there isn't enough time on the calendar.

The very first hearing that the House Judiciary Committee held in the 113th Congress was on the need for immigration reform. My hope at the time was that the hearing signaled the beginning of an open dialogue focused on the creation of an immigration system that serves American businesses, families and security. Instead, I read time and time again that House Republicans oppose comprehensive immigration reform but support a piecemeal approach to fixing the problem.

We keep hearing that five bills are ready for consideration and more are being drafted. Where are they? If House Republicans oppose comprehensive immigration reform but support a piecemeal approach to fix our immigration system, show us. Do something. We have been trying to fix our broken system for well over a decade, and I believe we are closer together today than we have ever been before. But now is not the time for more talk, talk, talk. Now is the time for action.

Mr. Chairman, let's work together to bring immigration legislation to the floor immediately to fix our broken system.

I thank you and yield back the balance of my time.

Mr. GOODLATTE. Thank you, Mr. Conyers.

And I will now turn to the Chairman of the Subcommittee on Immigration and Border Security, the gentleman from South Carolina, Mr. Gowdy, for his opening statement.

Mr. GOWDY. Thank you, Mr. Chairman.

Before I yield to Mr. Smith, I couldn't help but note, when our colleague from Michigan was talking, that from 2008 to 2010, when our colleagues on the other side of the aisle controlled every single gear of government, no comprehensive immigration reform package was put together.

Now, I have some colleagues like Luis Gutierrez and Zoe Lofgren that have worked their entire lives for it, but let's don't rewrite history and blame this Committee for what a Democrat-controlled Committee didn't lift a finger to do from 2008 to 2010.

With that, I would be pleased to yield to the gentleman from Texas, former Chairman of the Judiciary Committee, Lamar Smith.

Mr. SMITH OF TEXAS. I am tempted not to say anything at all, but I appreciate the gentleman from South Carolina, the Chairman of the Immigration Subcommittee, for sharing his time.

Over 40 percent of immigrants in illegal status came here legally but overstayed their visas. A recent Bloomberg poll shows that 85 percent of Americans support a system to track foreigners that enter and leave the country. This scores higher than any other immigration question.

New biometric technology has reduced the cost of implementation significantly. Five-year-old cost estimates that some opponents of biometrics cite are clearly out of date.

Congress required the use of biometrics instead of biographic data to track foreign nationals because biographic information is very susceptible to fraud, and I want to thank Chairman Goodlatte and Subcommittee Chairman Gowdy for including biometric entry-exit language in H.R. 2278, the SAFE Act, at our mark-up in June.

Our language is the only proposal being considered by Congress that requires a definite implementation deadline for a biometric entry-exit system at all ports of entry.

It has been 17 years since the entry-exit system was first enacted in a 1996 immigration bill I introduced. We are long overdue in fully implementing a biometric tracking system.

Again, I thank the gentleman from South Carolina for yielding me time and yield back at this point.

Mr. GOWDY. I thank the gentleman from Texas. He is correct. Seventeen years ago the Illegal Immigration Reform and Immigrant Responsibility Act was enacted. The law requires an automated system to track the entry and exit of visitors to and from the United States. Despite Congress reiterating its mandate for an exit system over the past 17 years, DHS has failed to execute the law. The law's entry mandate was completed in a reasonable amount of time. However, exit has never been completed.

This is problematic for myriad reasons. Not only should we be concerned with who is entering the country, but just as importantly we need to know who is exiting or not exiting our country, and not knowing who resides here is an issue of national security. As many as four of the 9/11 hijackers had either overstayed or violated the terms of their visas, and several other high-profile terror plots have originated with aliens who entered the country legally and overstayed.

The 9/11 Commission was keenly aware of the problem, Mr. Chairman, in their report issued over 9 years ago. The Commission recommended the Department of Homeland Security, properly supported by Congress, should complete as quickly as possible a biometric entry-exit screening system. It is estimated that as many as 40 percent of undocumented immigrants come to the United States on temporary visas and remain in violation of the law. A biometric exit screening system would provide a means to know which temporary visitors failed to adhere to our immigration laws, and we could begin to tackle the issue of visa overstays.

In Fiscal Year 2012, ICE arrested 1,374 individuals who overstayed their visa, and for those who may have thought I misread that, 1,374. However, they have estimated there are 2.3 million people who have overstayed their visas in the United States. So 1,374 out of 2.3 million is not very good.

So where are we? Seventeen years after Congress mandated an automated entry and exit system to track all travelers coming into and departing the United States, 13 years after Congress reaffirmed that mandate and extended it to high-volume land border points of entry and exit, and 12 years after the Patriot Act mandated the entry-exit system be biometric, we are precisely where we started in 1996, Mr. Chairman, which is we have no automated system to track existing foreign visitors.

I hope the witnesses before the Committee today will provide information on the challenges preventing the implementation of a biometric entry-exit system and ideas for a way forward.

And with that, I would yield the remainder of my time back to the Chair.

Mr. GOODLATTE. Thank you, Mr. Gowdy.

And I would now like to recognize the Ranking Member of the Subcommittee on Immigration and Border Security, the congresswoman from California, Ms. Lofgren, for her opening statement.

Ms. LOFGREN. Thank you, Mr. Chairman.

I don't think anyone opposes the idea of keeping track of when people enter and exit the country. With that knowledge, we would be able to determine when people had overstayed their periods of authorized admission and were present in violation of the law. We would be able to make informed decisions about how to use our limited enforcement resources to apprehend and remove such people, and we would also be able to make changes to improve our visa issuance practices, the visa waiver program, and a host of other things.

So I hope today we will learn precisely what DHS has done over the years to set up our current entry-exit system, what work the Department is doing to improve that system, and what we can expect to see in the future.

As has been mentioned, Congress first mandated the creation of the automated entry-exit system in 1996, and we built upon that mandate several times. The ultimate goal is to establish a system that is realistic and cost-effective, that promotes national security and compliance with immigration law, and that does not overly disrupt the legitimate flow of persons and goods through our ports of entry. That flow represents billions of dollars in freight and travel each day and is an essential part of our Nation's economy and job market.

We know this is a challenge. I remember a witness from the Heritage Foundation pointed out in a hearing in 2011 before the Subcommittee, and this is a quote, "If this was a mandate that could have been easily fulfilled, it would have been fulfilled back in the 1990's when it was first implemented."

Despite the challenge, I think we have made progress over the years. It is true we do not have a biometric exit system at our land, sea and airports. I suspect this has already been mentioned—that will be a major focus of the hearing. But I would like to also focus on what has been done.

We have improved our ability to identify visa overstays and to track people exiting the country through deployment of biometric entry systems and enhancements to our biographic exit systems. We have made improvements in data sharing capabilities and we have an innovative cooperative agreement with the Canadian government, our partner to the north.

Let me say one thing further about the development of a biometric exit system. Many of us have long believed that the Department's goal should be to fulfill its statutory obligation to establish a biometric exit system at land, sea and airports. That was my position after reviewing the 9/11 Commission recommendations, and I still believe that is something we should continue to explore.

I have been frustrated with the lack of progress, but I am also pleased to hear the Department continues to pursue this objective and that it is poised to test and pilot a variety of new technologies and approaches to the problem in the next couple of years.

It is one thing to complain that the Department has not made progress toward that goal, and it is another to understand exactly

what it would take to get there. And that is why I think when it comes to biometric exit, the three important questions for today's hearing are: one, is it possible for us to have a biometric exit capability at every land, sea and airport; two, if it is possible, how much would it cost, how long would it take, and what would have to happen to make it a reality; and three, what would we get from a fully deployed biometric exit system that we would not be able to get through an enhanced biographic exit system and cooperative partnerships with neighboring countries?

We need answers to these questions because we must know whether the task before the Department is achievable. If it is, we must all have a realistic understanding of what it will take to get there. This will be expensive.

Several years ago, the Department concluded that implementing a biometric exit system at airports would cost $3 billion over 10 years. At land ports, the cost would be exponentially greater and require not only a large increase in personnel but also very large investments in port infrastructure. For a Congress that is intent on cutting spending at every turn, that just narrowly avoided a default on the Nation's debt, that actually shut down the government for a period of weeks because of an intent not to pay bills that had already been incurred, these costs must be front and center in our discussion.

Finally, we need to understand what marginal improvements a biometric exit system would have over an enhanced biographic system paired with our Beyond the Borders agreement with Canada. I am a fan of technological solutions. I come from Silicon Valley. But I also want to know exactly what problem we are trying to solve and how the new solution is better than what we currently have.

I hope we can get answers to these questions today. I look forward to the witnesses. But before I close, let me just say how disappointed I was to hear the news that the House is not intending to consider immigration bills before the end of the year. I think we have an historic opportunity before us to work together to improve our immigration laws.

I thank the Chairman of the Subcommittee for his kind comments about myself and Mr. Gutierrez. I am mindful that we did not do immigration reform in a comprehensive way when we had the majority. As Democrats we were actually, in the House, deferring to the Senate, hoping that they could have bipartisan agreement, and they ultimately failed. The gentleman was not a member of that Congress, but we did pass the Dream Act when Democrats were in the majority, and it fell short in the Senate.

I just believe that we can put our hands across the aisle and work together and improve our laws. I would hope that the spirit and intent to do that has not faded on the part of the majority. Certainly I would hope to continue to work with the majority to solve this problem for our country, and I yield back.

Mr. GOODLATTE. The Chair thanks the gentlewoman for her statement.

And I also appreciate her closing comments and her gesture and her long-time work, along with other Members of the Committee, on this issue, and I want to assure you that you have my commit-

ment and many Members on my side of the aisle's commitment to continue to work to try to advance immigration reform. It is something that is badly needed, and we are going to be very dedicated to continuing to work in that direction.

Without objection, other Members' opening statements will be made a part of the record.

And at this time I would like to welcome our panel of witnesses. As is customary with this Committee, if you would all rise, I will begin by swearing you in.

[Witnesses sworn.]

Mr. GOODLATTE. Thank you very much. Let the record reflect that all of the witnesses responded in the affirmative.

I will begin by introducing Janice Kephart. Ms. Kephart recently returned from a Special Counsel position with the Senate Judiciary Committee, where she advised and supported work during the Committee's consideration of immigration legislation. Ms. Kephart also served as counsel to the 9/11 Commission and was a key author of the staff monograph, "9/11 and Terrorist Travel," as well as the immigration-related Facts and Recommendations in the 9/11 Commission Report. Ms. Kephart holds degrees from Duke University and Villanova School of Law.

Mr. James Albers is the Senior Vice President of Government Operations for MorphoTrust USA, a company that provides identity solutions in biometrics, background checks, and secure credentials. In this role, Mr. Albers is responsible for all of MorphoTrust's Federal business operations across the three market segments—enterprise, identity, and services. Prior to joining MorphoTrust, Mr. Albers served as Vice President of Government Operations for Sarnoff Corporation and was President at Frequency Engineering Laboratories. Mr. Albers graduated from George Washington University with a degree in political science.

Ms. Julie Myers Wood is the President of Compliance, Federal Practice and Software Solutions at Guidepost Solutions LLC, an immigration investigation and compliance firm. Ms. Wood served as the Assistant Secretary of the Department of Homeland Security at Immigration and Customs Enforcement, or ICE, for nearly 3 years. Under her leadership, the agency set new enforcement records with respect to immigration enforcement, export enforcement, and intellectual property rights. Ms. Wood earned a Bachelor's degree at Baylor University and a J.D. cum laude from Cornell Law School.

Mr. David Heyman currently serves as the Assistant Secretary for Policy at the U.S. Department of Homeland Security, where he focuses on terrorism, critical infrastructure protection, bioterrorism, and risk-based security. Prior to his appointment, Mr. Heyman served in a number of leadership positions in academia, government, and the private sector. He was the Founding Director of the Homeland Security Program and a Senior Fellow at the Center for Strategic and International Studies. Mr. Heyman holds an M.A. in International Affairs from Johns Hopkins School of Advanced International Studies and a B.A. in Biology from Brandeis University.

Each of the witness' written statements will be entered into the record in its entirety, and I ask that each witness summarize his

or her testimony in 5 minutes or less. To help you stay within that time, there is a timing light on your table. When the light switches from green to yellow, you will have 1 minute to conclude your testimony. When the light turns red, that is it. It signals that the witness' 5 minutes have expired.

And it is now my pleasure to welcome all of you and to recognize first Ms. Kephart.

**TESTIMONY OF JANICE KEPHART, FORMER SPECIAL COUNSEL, SENATE COMMITTEE ON THE JUDICIARY, FORMER COUNSEL TO THE 9/11 COMMISSION**

Ms. KEPHART. Than you. Thank you, Chairman Goodlatte, Ranking Member Conyers, for the opportunity to testify about a biometric immigration departure or exit system for foreign nationals, an issue that spans eight statutes and 17 years.

With the Terrorist Screening Center tracking 10,000 to 20,000 suspected foreign terrorists inside the U.S., knowing who is coming and who is going is critical to our national security and our law enforcement needs.

The 9/11 Commission did not recommend a name-based exit system because it can never fully verify that people are who they say they are, nor negate human error. Nine years later, this past April, the Commission's biometric exit recommendation was justified again when the JTTF lost a critical lead prior to the Boston Marathon bombing when terrorist Tamerlan Tsarnaev, the lead perpetrator, managed to slip out of the U.S. unnoticed because his name was misspelled on the outgoing airline manifest to Russia. If a biometric exit had been in place, Tsarnaev's departure as a foreign national would have been known to the FBI more than a year before lives were lost and others changed forever.

Today, the core issue should not be whether to have or not to have a biometric exit system but whether a biometric exit system is cost-effective and feasible. My testimony concludes that it is.

As to an air/sea exit, DHS established feasibility in 2009 when two pilots, one in Detroit and the other in Atlanta, concluded, and I quote, "Overall, the air exit pilots confirm the ability to biometrically record the exit of aliens departing by air." In that pilot, only one in 30,000 persons refused the biometric, nobody missed a flight, and more than 1 percent of those processed hit watch lists.

Today, feasibility is evident around the world, where at least 16 Nations are using biometrics to manage entry and exit of foreign nationals. Let me provide a few examples.

In 2011, Indonesia installed a biometric border solution at nine airports and one seaport. Indonesia's largest airport handles 10 million international passengers annually. That is nearly as busy and second in place to JFK, which handles 12 million annually. Indonesia's system fuses real-time biometric matching with watch-list vetting, all compiled into one person-centric file that eliminates fraud. That was done in 6 months.

New Zealand just rolled out its second generation of biometric borders at its largest airport, Auckland International, where immigration processing and boarding passes are combined into one single step.

Both Argentina and Nigeria are implementing biometric borders now, and Nigeria is doing it with the U.S. help.

So while I commend the work CBP is doing to begin testing of an air biometric exit in January, that still means we lag behind the rest of the world in using cutting-edge, efficient biometric solutions to manage both entry and exit.

Moving on to cost, a careful analysis shows that first-year implementation costs for all air and sea ports, even assuming cost overruns of 50 percent, would range from about $400 to $600 million. These numbers are derived from DHS' 2008 Regulatory Assessment on this exact issue, but my numbers are six times lower because of newer, faster, better solutions that require no airport infrastructure changes, no air carrier involvement, and require little manpower to operate. With a little ingenuity, implementation can be budget neutral.

One solution is to simply increase visa and security application fees by $10 on the 40 million foreign visitors that come by air. That is not asking a lot when Brand USA, by law, gets $10 per applicant now to promote tourism. This alone would generate about $400 million, enough to probably cover most, if not all, of air exit deployment.

Let me turn to land borders, which I know is of great interest to the Committee. A more nuanced approach is necessary here, but I think it is doable. Step one is pretty easy. For pedestrians at land borders, replicate the air/sea solution inside land ports. That is quick.

Step two, enable those truckers and individuals already enrolled in Trusted Traveler programs that exist at the 39 busiest ports of entry and represent 95 percent of crossings to use their Trusted Traveler cards not just for entry but for exit too. That would mean replicating Trusted Traveler for entry to exit lanes, a quick and proven solution already in place that folks understand and works pretty well.

Step three is to basically replicate a Trusted Traveler into sort of a trusted everyone where you are replicating the Trusted Traveler technology used in the cards into visas, border crossing cards, and other travel documents over time. Verified departure would be recorded and relayed to the arrival/departure systems.

On the northern border, DHS could leverage the good work of the shared biographic system with Canada that David will testify about and worked so hard on. The goal would be to treat land border exit as close as possible to Trusted Traveler entry to speed commerce, meet the statutory requirement, with proven cost-effective technologies that already exist on the land border.

I hope that helps. Thank you, and I am happy to take your questions afterwards.

[The prepared statement of Ms. Kephart follows:]

Testimony before the
House Judiciary Committee

# IMPLEMENTATION OF AN ENTRY-EXIT SYSTEM: Still Waiting After All These Years

Wednesday, November 13, 2013, 10 am


## Janice Kephart

former Special Counsel, Senate Judiciary Committee (during consideration of S. 744, *Border Security, Economic Opportunity, and Immigration Modernization Act*)

former Counsel, National Commission on Terrorist Attacks Upon the United States

Chairman Goodlatte, Ranking Member Conyers , as well as Border Security Subcommittee Chairman Gowdy and Ranking Member Lofgren, thank you for the opportunity to testify on the implementation of a biometric exit, a critical immigration, security and law enforcement issue that spans eight statutes and 17 years.

My name is Janice Kephart, and I approach the of border security and the entry/exit issue as a: former border counsel on the 9/11 Commission that proposed recommendation of a biometric entry/exit system; twice counsel to the Senate Judiciary Committee (in the late 1990s for the then Subcommittee on Technology, Terrorism and Government Information, and again during the 2013 consideration of immigration reform); as former National Security Director and now Fellow at the Center for Immigration Studies; as an specialist on identity and border security; and president of my own consulting firm, 9/11 Security Solutions LLC.

## Summary

Tracking the arrival and departure of foreign visitors to the United States is an essential part of immigration control, with collateral effects on law enforcement and national security. The need for arrival controls is obvious, but recording departures is also important; without it, there is no way to know whether travelers have left when they were supposed to. Creating a feasible and cost-effective solution for foreign visitors has emerged as the linchpin in fully implementing the eight statutes first passed beginning 16 years ago.

It is also vital that such exit tracking employ biometric indicators — for instance, the travelers' photos or fingerprints. Using only biographic information, such as names or passport numbers, provides no assurance that the person departing is the one whose original arrival was recorded. This testimony demonstrates that a biometric exit-tracking system for aliens departing by air or sea is feasible immediately at a reasonable cost, and a phased-in approach is available for land ports of entry. Due to the vast differences between air/sea and land ports of entry, they are treated as separate solutions.

It is a marked potential improvement that Customs and Border Protection is now responsible for implementation of a comprehensive biographic/biometric entry/exit solution. Their conclusion in the September 27, 2013 "Comprehensive Exit Plan" issued pursuant to the statutory requirements of the "2103 Department of Homeland Security Appropriations Act" is encouraging:

> *CBP is progressing on a fiscally conservative, thoughtful, and responsible path to deploy a comprehensive biographic and biometric entry/exit system.*
>
> *CBP and DHS S&T continue to advance the research and development for potential biometric air exit program options and are identifying operational concepts that are*

*feasible in the current environment at U.S. airports and seaports. CBP and DHS S&T will begin testing concepts in early calendar year 2014, which will significantly inform future efforts.*

*Overall, DHS has significantly improved the existing entry/exit system throughout all operational environments and will further the biographic efforts while working toward a feasible biometric solution.*

With DHS now actively working towards a solution that incorporates biometrics at air and sea ports, Congressional oversight and discussion is particularly welcome.

For brevity, a system that tracks the departure of foreign nationals will often be referred to simply as "exit".

## Implementing Biometric Exit at Air and Sea Ports of Entry

The first section of this testimony demonstrates that a biometric exit-tracking system for foreign nationals departing by air or sea is feasible immediately at a reasonable cost. This section is a reprint of my Center for Immigration Studies (CIS) report published in September 2013, "***Biometric Exit Tracking: A feasible and cost-effective solution for foreign visitors traveling by air and sea"*** found here, published in my current capacity as National Security Fellow at CIS.

Among the findings:

- The first-year implementation costs for all air and sea ports would range from $400 million to $600 million, even assuming significant cost overruns.
- This estimate is based on the current costs of existing devices and on the April 2008 "Air/Sea Biometric Exit Project Regulatory Impact Analysis".
- Implementation costs could be covered by a relatively small fee increase on foreign nationals arriving by air or sea and likely does not require an appropriation.
- Such a system could be implemented with minimal impact on the 40 million foreign visitors who travel by air.
- The Oct. 2009 Congressional report, "US-VISIT Air Exit Pilots Evaluation Report" that studied data from two airport biometric pilot programs concluded that "Overall, the Air Exit Pilots confirmed the ability to biometrically record the exit of aliens subject to US-VISIT departing the United States by air." Today, technologies are faster, more diverse, and cost-effective.
- The Biometrics Institute (based in Australia), an international forum representing governments, suppliers and researchers in its published 2013 survey said that the number one most significant trend noted by its members for this year was Biometrics at the Border. In fact, 16 nations already have, or are in the process of implementing, biometric

processing of foreign air travelers including Ghana, while New Zealand has combined airline check-in and immigration control in its second generation system. The UAE has had no issues with its biometric border control at all land, air and sea ports since installation in 2004. Indonesia has implemented real time watchlist entry/exit biometric checks in six months at its largest airport that processes 10 million international passengers annually, just second in the U.S. to New York JFK's annual processing of 12 million. The list goes on.

- Congress has mandated the deployment of an exit-tracking system in eight separate statutes, starting in 1996. The three most recent laws require a biometric element. But the executive branch has so far refused to implement such a system.

- In contrast to the rejection of biometric exit-tracking at home, the same federal government is helping install biometric border systems abroad, in Nigeria and the Philippines.

## Implementing Biometric Exit at Land Ports of Entry

The second section of this testimony describes biometric solutions at land ports of entry. The focus for implementation should be on 39 busiest land ports representing 95 percent of the total northern and southern border traffic. Tracking the departure of visitors by land is a very different challenge because of completely different conditions at land ports of entry versus air/sea ports of entry. To be clear, any movement on a biometric exit deployment on our northern border should be in counsel and cooperation with Canada, building on the good work in implementing a biographic entry/exit data exchange at northern land ports of entry, to the extent possible.

- A biometric exit-tracking system for foreign nationals departing by *pedestrians* at land ports of entry is likely feasible immediately at a reasonable cost, mimicking processing at air/sea ports of entry using interior locations at ports of entry.

- A biometric exit is feasible in the near future for *individuals and truckers already enrolled in trusted traveler programs* with little port infrastructure change and little cost. A straightforward solution duplicates the trusted traveler Radio Frequency Identification (RFID) technology used at entry lanes to exit lanes. No new IDs would require to be issued to these individuals.

- The backbone of the solution for *vehicular traffic* would be trusted traveler RFID technology that exists at entry replicated in exit lanes, "smart cards" that mimic the technologies, security and privacy features of trusted traveler documents. This type of solution was tested in 2005 by US-VISIT and the Smart Border Alliance, and determined to be feasible.

- The difference with a biometric exit solution and today's trusted traveler systems is that the verified departure data would be recorded and then relayed to Arrival/Departure and Advanced Passenger Information Systems.

- RFID and corresponding ID card technologies are proven, cost-effective and significantly better and relatively inexpensive.

- Using trusted traveler systems as a base model for biometric exit, the essential trade, facilitation and departure collection goals of border controls can be met, including incorporating the good work of DHS and Canada in their shared entry/exit information system and other cooperative border agreements that are maturing rapidly.

- For all foreign nationals seeking entry into the United States not currently enrolled in trusted traveler programs, the United States should strongly consider expanding the RFID / secure identity electronic framework into issuance of visas, border crossing cards, and other travel documents accepted to use for entry/exit across U.S. borders. According to the Smart Card Alliance, chips holding biometrics and RFID capable cost only a few dollars a piece.

- Cost for travel documents enhanced with biometrics and RFID capable could be folded into visa and other program fees.

## Implementing Biometric Exit Air and Sea Ports

> *Developing and implementing a biometric exit capability to collect biometric data, such as fingerprints, which is required by federal law, has been a long-standing challenge for DHS. In May 2012, DHS internally reported recommendations to support the planning for a biometric exit capability at airports — DHS's priority for biometric exit capabilities — that could also be implemented at seaports in the future. . . . DHS officials stated that the department's goal is to develop information and report to Congress about the benefits and costs of biometric air exit options before the fiscal year 2016 budget cycle.*
>
> — "Overstay Enforcement: Additional Actions Needed to Assess DHS's Data and Improve Planning for a Biometric Air Exit Program", GAO-13-683, July 30, 2013.

Introduction

This report attempts to show the way, for the first time, to a clear path toward a feasible, cost-effective biometric exit-tracking program at all air and sea ports of entry. The report concludes that a wide array of solutions are available immediately with a total first year implementation cost ranging from $400 to $600 million. This cost includes a 50 percent risk factor of $125 million and is based on current industry device costs and a 2008 Department of Homeland Security (DHS) regulatory assessment of costs associated with deploying biometric exit to all air and sea ports.

According to the U.S. Department of Commerce Office of Travel and Tourism Industries, approximately 40 million foreign visitors traveled by air to the United States in 2012, with overall travel and tourism to the United States up 7 percent. This level of traffic could be covered by an air and sea biometric exit system with minimal impact on individual travelers. In fact, small increases in visa waiver and visa application fees would cover costs without affecting

budget constraints. The more expensive options are unmanned solutions used around the world today, while the less expensive options can require higher ongoing labor costs. None require air carrier support or air/sea port infrastructure changes. All are proven technologies.

The results of a 2009 DHS evaluation report that tested biometric exit solutions at two large U.S. international airports is further evidence that a biometric exit is feasible now. Moreover, at least 14 nations have or are deploying biometric border solutions at airports, and three nations have or are deploying biometric guest worker tracking programs. Some nations have had biometric solutions at all air, land, and sea ports for a decade, with superb results in data integrity and border control.

The key elements of a practical biometric exit program are reasonable, real cost estimates; tested and mission-capable technologies; and, in order to drive government accountability and long-term efficiencies in deployment, assurance that only immigration authorities will implement and collect the departing aliens' biometric information.

Biometric exit tracking is well established as a cornerstone of an efficient, enforceable immigration system. However, four main impediments to implementation remain in the United States. These are: (1) DHS's policy that the current biographic exit system, which relays departing flight manifest lists to immigration authorities, is sufficient for national security and law enforcement purposes; (2) unsubstantiated assumptions that costs would be exorbitantly high; (3) speculation that quick, accurate biometric processing of departing aliens is not feasible; and (4) refusal of the air carriers to abide by current law requiring air carrier collection of biometric exit data from departing aliens.

Eight statutes currently require an exit system. The three most recent statutory requirements all include a biometric element. However, despite a consistent reiteration of congressional intent to require a biometric exit program over the past decade and clear technological capability for deployment, the executive branch continues to refuse to implement such a system. This report seeks to dispel myths and put forth solutions on cost and feasibility, as well as to identify where legislative streamlining may be needed and assess the policy reasons for implementing biometric exit.

This report focuses on concurrent deployment of exit tracking for air and sea travelers. This is because carriers at seaports process departing foreign nationals in a similar manner to carriers at airports. The land solutions will be addressed in a separate report because of the different requirements for a different type of port of entry, one that must accommodate dense, incoming vehicular and pedestrian traffic, and outgoing traffic that currently undergoes little, if any, processing.

## Biometrics in U.S. Border Management

Digital facial images and 10 fingerprints taken at air ports of entry and consular offices abroad of foreign nationals seeking admission into the United States are a cornerstone of U.S. border management. Biometrics also have become a foundation for intelligence and law enforcement

investigations within the United States. The biometric facial images and fingerprints taken at ports of entry are queried an average of 30,000 times every day by authorized federal, state, and local government users. The United States also shares some of this data with international partners such as Australia, Canada, New Zealand, and the United Kingdom to help apprehend international criminals and terrorists who have been caught trying to change their names and other biographic information in an attempt to find safe haven in the United States or one of these international partners.

According to DHS's US-VISIT (US Visitor and Immigrant Status Indicator Technology) website, the purpose of taking biometric data at entry is to:

> *[A]ccurately identify people and determine whether they pose a risk to the United States. US-VISIT supplies the technology for collecting and storing biometric data, provides analysis of the data to decision makers, and ensures the integrity of the data. By using biometrics, US-VISIT is helping to prevent the use of fraudulent documents, protect visitors from identity theft, and stop thousands of criminals and immigration violators from entering the country.*

US-VISIT was appropriated $232 million and reorganized in the 2013 Homeland Security Appropriations Act. The office was divested of two difficult areas for which it had been responsible over the past decade that reflected more operational policy management than biometric development and integrity. These were (1) identifying visa overstays and determining visa overstay rates; and (2) the development and implementation of a biometric exit program.

U.S. Immigration and Customs Enforcement (ICE), which is responsible for enforcing immigration law against foreign nationals who overstay or violate the terms of their admission, is now responsible for identifying overstays and determining overstay rates. This workload would be minimal with a biometric exit, which would do much of the work for ICE and enable the agency to focus on enforcing the law rather than diverting hundreds of agents to this task as it does now.

The development of a biometric exit program is now squarely with Customs and Border Protection (CBP), which is already wholly responsible for biometric entry inspections. The only lost budget item in the 2013 DHS appropriations bill is US-VISIT losing its mission to support international partners in establishing their own US-VISIT-style programs, an understandable move at a time of tight budgets.

In the wake of 9/11, the purpose of US-VISIT was to eliminate passport and visa fraud by using biometrics to assure that those presenting travel documents at consular offices overseas during the visa application process, or those applying for admission at U.S. ports of entry, were who they claimed to be, a core recommendation in the 9/11 Commission report.

In 2013, appropriators in the House of Representatives gave US-VISIT a new name — it is now the Office of Biometric Identity Management (OBIM) — and rejected a budget request by the Obama administration to submerge US-VISIT in CBP. Essentially, House appropriators' refusal to accept the administration's budget request was an acknowledgment that US-VISIT had grown

well beyond its initial mandate, becoming a biometric program cornerstone serving immigration, law enforcement, and national security concerns equally.

The value of OBIM's biometric data will double when it acquires departure information from a CBP-implemented exit solution. Biometrically verified exit data will significantly augment OBIM's partners' ability to conduct investigations. This information can determine eligibility for an immigration benefit, for example. In other instances, biometric exit data can determine whether a foreign national deemed a threat is inside or outside the United States. This is not a hypothetical situation; whether a terrorist had departed was a key issue with two 9/11 hijackers two weeks before the attacks, where law enforcement gave up looking for watchlisted individuals on the incorrect assumption that they had already departed the United States.

More specifically, accurate and real-time exit data will support OBIM authorized law enforcement, immigration, and national security government clients as follows:

- U.S. Customs and Border Protection (CBP) uses OBIMOBIM's services at U.S. ports of entry to make sure the person seeking entry is the person to whom a visa was issued, to protect travelers against identity theft, to prevent fraudulent document use, and to ensure wanted criminals and terrorists are kept out.

- U.S. Citizenship and Immigration Services (USCIS) uses OBIM's services to establish and verify the identities of people applying for immigration benefits, including asylum or refugee status.

- The U.S. Coast Guard uses OBIM biometrics-based mobile services at sea by checking the biometrics of apprehended criminals and immigration violators on the spot, and using the data to prosecute illegal migrants and smugglers.

- The Department of Defense and the intelligence community use OBIM to compare latent fingerprints or other biometric information found during terror investigations to verify identities of known or suspected terrorists on watch lists.

- The Department of Justice and state and local law enforcement use OBIM's services to ensure that they have accurate immigration information about individuals they arrest; interoperability exists between OBIM's Automated Biometric Identification System (IDENT) and the FBI's Integrated Automated Fingerprint Identification System (IAFIS) fingerprint databases. OBIM's Biometric Support Center (BSC) helps many federal, state, and local agencies with their investigations by providing forensic biometric support 24/7. Some of these cases help solve crime and terror cases that may match records in state fingerprint database systems as well.

- The Department of State uses OBIM's services to establish and verify the identities of visa applicants at embassies and consulates around the world through its BioVisa program. Consular officers use this information in determining visa eligibility.

Statutory Authority

Various laws requiring exit control have sat on the books since 1996. In 2000, two separate laws were passed, one that established an exit system and one that tied it to the Visa Waiver Program. In 2001, the USA Patriot Act chimed in again, demanding exit. In 2002, the Border Security Enhancement law again required exit, and in 2004 the Intelligence Reform Act emanating from 9/11 Commission recommendations included a biometric exit. Beginning in 2004, and until 2007, pilot programs for exit were undertaken at the demand of Congress. The technology worked, but compliance rates were low since the kiosks were not clearly mandatory or placed in locations that required compliance.

In 2007, the 9/11 Commission Recommendations Act reiterated the need for exit and required exit apply to all foreign nationals entering under the Visa Waiver Program, adding in a biometric component and requiring the airlines to carry out the processing. In 2008, DHS put out a proposed rule-making for the "Collection of Alien Biometric Data Upon Exit From the United States at Air and Sea Ports of Departure", requiring the airlines to collect biometric data anywhere in the international departure process. The airlines refused. A viable exit system was far from implementation.

Today, there are three core statutes that provide the parameters of a biometric exit for air, sea, and land ports of entry. These are:

• The 2004 Intelligence Reform and Terrorism Prevention Act (8 USC § 1365b). This act streamlined the prior five statutory requirements for exit by defining a "biometric entry and exit data system" as the applicable sections of:

1. The Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (Public Law 104–208);

2. The Immigration and Naturalization Service Data Management Improvement Act of 2000 (Public Law 106–205);

3. The Visa Waiver Permanent Program Act (Public Law 106–396);

4. The Enhanced Border Security and Visa Entry Reform Act of 2002 (Public Law 107–173) [8 U.S.C. 1701 et seq.]; and

5. The Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT ACT) Act of 2001 (Public Law 107-56).

- The 2007 9/11 Commission Implementation Act, Section 711, Section 217(i) of INA, of the Implementing Recommendations of the 9/11 Commission Act of 2007 (P.L. 110-53), which places collection onus on air carriers.

- The March 2013 Department of Homeland Security Appropriations Act that requires Customs and Border Protection to implement a biometric exit program.

**The 2004 Intelligence Reform and Terrorism Prevention Act.** The 2004 law begins as follows: "Consistent with the report of the National Commission on Terrorist Attacks upon the United States, Congress finds that completing a biometric entry and exit data system as expeditiously as possible is an essential investment in efforts to protect the United States by preventing the entry of terrorists." The law requires full implementation of a biometric entry/exit system at all ports of entry by December 2004. More specifically, the 2004 law lists the "Entry-exit system goals" as follows:

The Department of Homeland Security shall operate the biometric entry and exit system so that it:

1. Serves as a vital counterterrorism tool;

2. Screens travelers efficiently and in a welcoming manner;

3. Provides inspectors and related personnel with adequate real-time information;

4. Ensures flexibility of training and security protocols to most effectively comply with security mandates;

5. Integrates relevant databases and plans for database modifications to address volume increase and database usage; and

6. Improves database search capacities by using language algorithms to detect alternate names.

All immigration component databases held by ICE, CBP, USCIS, the Department of Justice's Executive Office of Immigration Review, and State's Bureau of Consular Affairs were to be integrated with the biometric exit system. By December 2006, a fully interoperable electronic data system, as required by Section 202 of the Enhanced Border Security and Visa Entry Reform Act (8 U.S.C. 1722), was to provide standardized "current and immediate access to information in the databases of federal law enforcement agencies and the intelligence community that is relevant to determine — (A) whether to issue a visa; or (B) the admissibility or deportability of an alien." Guidelines were also provided for assuring the security of the data, and enabling correction of erroneous data by the public.

Further seeking to implement core 9/11 Commission recommendations, the 2004 law required that entry/exit data be available electronically and used in determining immigration benefit application outcomes, including visas, work permits, immigration court cases and investigations, and creating a tracking system tied to the biometric identifier to assure accurate identification of applicants or those under investigation.

**The 2007 Visa Waiver Program for Certain Visitors.** Section 217(h) of Immigration and Nationality Act was amended in 2007 to require air carriers to "collect and electronically transmit" passenger "arrival and departure" data to "the automated entry and exit control system" developed by the federal government. Deployment of an exit system was also tied to further expansion of the Visa Waiver Program. The exit requirement was ignored, however, by

both the Bush and Obama administrations, which both actively expanded the Visa Waiver Program without a biometric exit program.

**The 2013 Homeland Security Appropriations Act.** For 10 years Congress has tried to force DHS to establish an exit program to no avail. US-VISIT was involved with the issue because of a statutory call for a biometric exit. Being the only true biometric and immigration program office in the federal government, US-VISIT was saddled with conducting exit pilots and rendering massive reports that the current administration has refused to make public. Meanwhile, CBP, which only in the past few months has been made responsible for full implementation of a biometric exit program, was included in pilots and contributed input, but never had final say, control, or accountability for getting the job done. In the 2013 Homeland Security Appropriations Act, the appropriators took the issue off the table and made clear that CBP is fully in control, and also accountable, for planning and deploying a biometric exit program.

The appropriators also finally streamlined the various legal requirements pertaining to exit and set forth a viable, practical, phased approach that was desperately needed. CBP now has clear marching orders: the agency must produce an enhanced biographic exit system first, and quickly, with a later phase-in of a biometric exit system. While it is unnecessary to continue with a biographic system considering the maturity of biometric border exit solutions currently available (see below), the good news is that the agency that is responsible for border inspections at entry, is now also the responsible agency for the border inspections at exit.

One more potential benefit of the new shift of overstay analysis to ICE and exit implementation to CBP: This change may cause the necessary friction to actually make exit happen. ICE relies on many forms of exit data now, but getting the same data in the same manner with the same standardized information consistently from CBP would make ICE overstay operations much more efficient. However, that will likely require either the Obama administration to develop and implement a biometric exit system, or significant congressional oversight that is satisfied only with results, not excuses for failing to implement a program first required 17 years ago. Below is the current budget allocation for OBIM from the 2013 Homeland Security Appropriations Act, which clarifies the new set of responsibilities for OBIM, CBP, and ICE relative to biometric exit program development (emphasis added):

> *OFFICE OF BIOMETRIC IDENTITY MANAGEMENT*
>
> *A total of $232,422,000 is provided for the "Office of Biometric Identity Management." This level includes: $40,546,000 for Salaries and Expenses (S&E); $15,980,000 for Systems Engineering; $155,840,000 for Operations and Maintenance (O&M), to include $65,500,000 for IDENT; and $20,056,000 for Identity Management and Screening Services. ... The bill provides $19,917,000 to ICE in order to fully fund overstay analysis previously performed by US VISIT, to include the Data Integrity Group. The bill also provides $12,284,000 to CBP related to entry-exit policy and operations.*

Implications of a Biometric Exit on National Security and Overstays

As mentioned in the introduction, 40 million foreign nationals visit the United States by air annually. This number represents nationals from visa waiver countries where the United States does not require a visa for tourism or business travel lasting 90 days or less from the current list of 37 qualified countries. The 40 million also includes anyone from a Visa Waiver country that is applying outside of tourism or short-term business, as well as any country that is not in the Visa Waiver Program.

**National Security.** Little has changed on progress to implement an exit program since the 9/11 Commission made this finding of fact in its *9/11 and Terrorist Travel* monograph: "On August 23, 2001, the CIA provided biographical identification information about two of the hijackers to border and law enforcement authorities. The CIA and FBI considered the case important, but there was no way of knowing whether either hijacker was still in the country, because a border exit system Congress authorized in 1996 was never implemented."

Not having an exit system in place led the 9/11 Commissioners to conclude in 2011 that our border system must include data about who is leaving and when, with the following recommendation: "The Department of Homeland Security, properly supported by the Congress, should complete, as quickly as possible, a biometric entry-exit screening system. As important as it is to know when foreign nationals arrive, it is also important to know when they leave. Full deployment of the biometric exit . . . should be a high priority. Such a capability would have assisted law enforcement and intelligence officials in August and September 2001 in conducting a search for two of the 9/11 hijackers that were in the United States on expired visas." (See "Tenth Anniversary Report Card: The Status of the 9/11Commission Recommendations").

Our more recent experience with terrorist threats and attempts reiterates the commissioners' point. In the wake of the Christmas Bomb Plot and the near-getaway by would-be Times Square bomber Faisal Shahzad (who had already boarded a flight to leave the United States when he was arrested), we are once again reminded that a biometric exit system is needed to prevent a terrorist from "fooling" the system and getting away.

**Overstay Enforcement Efforts and the Visa Waiver Program.** Biometric exit is a key component to assuring the integrity of the Visa Waiver Program, by assuring that overstay rates are accurate and readily available to determine either a nation's qualifications to be accepted into the program or its continued participation in it. The fact that DHS officials told the GAO during its investigation for the May 2013 report "Immigration Enforcement: Preliminary Observations on DHS's Overstay Enforcement Efforts" that there remains no confidence in the current biographic data system, is strong evidence that a biometric system is needed to support the Visa Waiver Program.

More specifically, the inadequacies of visa overstay analysis today make clear that biographic data alone are inadequate in assuring the identity of foreign nationals coming and going through the immigration system. According to the May 2013 GAO report referenced above, there are currently more than one million "unmatched arrival records" in the DHS's Arrival and Departure Information System (ADIS), or potential cases where immigrants may or may not have remained in the country with expired visas, and cannot be identified.

Foreign air travelers benefit from accurate data regarding their arrivals and departures because it minimizes errors that may affect future travel. The relationship between overstay data and the need for a biometric air exit was further emphasized in the July 2013 GAO report "Overstay Enforcement: Additional Actions Needed to Assess DHS's Data and Improve Planning for a Biometric Air Exit Program", which notes the following:

> *In 2011, DHS reviewed this backlog of 1.6 million records, closed about 863,000 records, and removed them from the backlog. As new unmatched arrival records have accrued, DHS has continued to review all of these new records for national security and public safety concerns. As of June 2013, DHS's unmatched arrival records totaled more than one million. ...*
>
> *Federal law requires DHS to report overstay estimates, but DHS or its predecessor has not regularly done so since 1994. In April 2011, GAO reported that DHS officials said that they have not reported overstay rates because DHS has not had sufficient confidence in the quality of its overstay data. In February 2013, the Secretary of Homeland Security testified that DHS plans to report overstay rates by December 2013. However, DHS has not assessed or documented improvements in the reliability of data used to develop overstay estimates, in accordance with federal internal control standards. Without such a documented assessment to ensure the reliability of these data, decision makers would not have the information needed to use these data for policy-making purposes.*

Terrorist overstays are also a significant issue, which, under the current system, can be tracked down only through difficult, tedious, and time-consuming investigations. Recent terrorist overstays include Hosan Smadi, a Jordanian national who plotted to blow up a Dallas skyscraper in 2009, and Amine El Khalifi, a Moroccan whose visa expired in 1999, who was arrested in an attempt to bomb the U.S. Capitol in 2012.

**Assuring Identity.** These one million "unmatched" records would likely not exist, or be substantially reduced, with biometrics. Biometrics enable identity to be verified instantly and eliminate the risk of missing a threat due to the misspelling of a name or other biographic errors. Instead, biometrics allow instant, real-time assurance that people are who they say they are. Biometrics also prevent identity theft, preventing the swipe of lost or stolen passports from being used to manipulate the system as to who has actually left the country.

Instant, verified overstay data would give CBP and the State Department better information to determine who gets to visit the United States again, and ICE better information about who returned or illegally overstayed. Exit data would also support all current customers of OBIM biometric data, and may even give Joint Terrorism Task Forces the ability to curtail terrorist absconders who slip out of the United States unnoticed based on verified watchlist hits — akin to the attempted escape by the Times Square bomber, who was boarded and on the jetway when apprehended, having bypassed a biographic-only exit system and TSA security.

**U.S. Supports Biometric Border Programs Abroad.** Although the federal government currently does not have a biometric exit program, the United States is actively supporting biometric border programs in both Nigeria and the Philippines. In April 2013, a U.S. delegation

arrived in Nigeria to discuss installation of a biometric system through its Ministry of the Interior to help secure its borders, with the overall goal of stemming the tide of rising insurgency and helping to stabilize the Nigerian regime. According to Dwight Brown, the U.S. delegation program manager, "You can change your name, you can get a new passport, but you can't change your fingerprints and this system checks the fingerprint of every traveler that comes through it. . . . Our system is powered by biometrics and fingerprints, the most powerful identification technology available today." The Nigerian newspaper report noted that "The technologies will be provided by the USA while the Nigeria Immigration Service personnel will be trained to man them."

In April 2013, the United States donated two fingerprint scanners to the Philippines Bureau of Immigration at the Ninoy Aquino International Airport to take fingerprints of all arrested aliens and build a photo and fingerprint biometric database of illegal aliens and foreign fugitives wanted by immigration intelligence personnel. A Filipino immigration official commented that "This will prevent these blacklisted aliens from re-entering the country even if they assume a different name, use a different passport, or disguise their physical appearance." The country's Immigration Commissioner thanked the U.S. government for its support in upgrading its facilities and enhancing the Filipino authority's ability to enforce immigration laws.

Biographic Only vs. Biometric Plus Biographic

There continues to be a debate over whether a "biographic-only" approach to exit is sufficient. But that is essentially the system currently in place, whereby advance passenger data and name records of foreign nationals who have checked in for departure are logged into the immigration arrival-departure database. As discussed, a biographic-only system has numerous problems, including the inability to confirm identity. The only way to confirm identity is through biometric means such as facial recognition software, iris scans, and fingerprints. This section explores the policy and practical reasons as to why, in each instance, a biometric solution is the only one that provides the benefits for government, the traveler, the airport, and the airline (or, in the case of the sea ports, the sea carrier).

**The Problem with Names.** A serious issue that remains unsolved more than a decade after 9/11 is misspelled or inaccurately recorded names. The 19 hijackers collectively had over 300 spellings of their names. Recently it was discovered that Boston Marathon bomber Tamerlan Tsarnaev's name was misspelled on a manifest list of a flight to Russia, meaning that the FBI did not have the benefit of an important lead in investigating his terrorist ties. Problems with the biographic-only approach continue despite software to help correct misspelled names. Simply requiring a "next generation" version of such software will not solve the problem; merely enhancing software that picks up name anomalies can never be sufficient because thousands of varieties of uncommon names from all over the world are spelled differently in English or even purposefully misspelled. Nor does such software pick up complete biographic identity changes, a much more nefarious problem that biometrics solves in seconds.

Identity verification produces actionable information. When an individual purchases a plane or boat cruise ticket, the federal government (indeed, most all governments) require advance passenger identity information, including Passenger Name Records (PNR) taken by airlines.

This information is then turned over to government authorities for risk assessments. Upon arrival at the airport for departure, the identity associated with the passenger must be verified. The seconds it takes to process a biometric solution is essential to assuring that the name matches the individual, eliminating nearly all varieties of fraud.

Without biometrics, either no vetting occurs or it is simply a name-based vetting, which is both inaccurate and unable to be fully verified. The result is inordinately long — sometimes hours — queues for a slow, manual, and inaccurate process carried out by overworked border agents.

However, automated, unmanned departure zones that scan biographic passport data and capture biometrics provide biometric identity verification within seconds by matching it against the biometric information obtained at entry, which in the United States is a digital photo and 10 fingerprints. Departure requires only verification against one of these biometrics. Using fingerprints as a base for a U.S. system, for example, would require verification of only two prints, a much quicker and easier solution than already exists at air ports at entry.

Using the same device — a set of monitored kiosks, unmanned gates, or handheld devices — passport data would be scanned concurrently with whatever biometric was captured. This data can be matched against the advanced passenger information and PNR data, and identity and biometrics can be vetted against existing law enforcement, intelligence, and watchlist information.

This does not mean that "hits" will result in a denial of departure or secondary inspection. In fact, that is not the point of an exit program. Instead, an exit program's primary purpose is to record a confirmed departure that enables better decision- making by immigration, law enforcement, and intelligence authorities after the fact. But that does not mean real-time departure data could not be acted upon, which may be essential during an active criminal or intelligence investigation where the foreign national sought represents a significant flight risk.

**Focus on High-Risk Passengers with Better Information.** The current TSA document check neither confirms identity nor authenticity of a passport (or any other travel document presented). An option could be to place a biometric solution at the front of the TSA checkpoint, replacing the current check by a TSA agent with a mandatory biometric-biographic identity check and departure record that would enable security personnel to focus on high-risk passengers and enable the majority of low-risk passengers to go through a more streamlined security process, improving throughput rates. At the same time, high-risk passengers can be given informed additional security checks that aid aviation safety and immigration departure information integrity. The result would be a better-informed and more secure aviation environment while fulfilling a federal mandate of a biometric exit system.

In 2008, US-VISIT conducted an in-depth "Air/Sea Biometric Exit Project Regulatory Impact Analysis". In comparing a biographic-only exit to a biometric exit, the assessment concluded that biometric was a far better choice for the following reasons:

- **Overstays.** The ability to determine overstays with the current biographic-only air exit is difficult and "the likelihood is high that not all overstays are identified."

- **Failure to confirm identity.** "Reliance on biographic data, such as matching the name provided by the traveler to stored names, is fraught with risk."

- **Incomplete immigration records.** "Without accurate and immediate recording of an in-scope traveler's exit, the traveler's entry-exit record is not complete. A risk exists that the traveler will be admitted into the United States without sufficient understanding of his or her entry-exit history."

- **Ability to expedite entry.** "When the entry-exit, identity, or watch list information on a traveler is not current or accurate, or if the CBP officer does not trust the data, the CBP officer may request the traveler be sent for secondary inspection more often than would otherwise be the case. This delays the entrance of the specific traveler and potentially the admission of other travelers."

- **Effects admission/participation of Visa Waiver Program countries.** "The database of entry-exit records of in-scope travelers risks being incomplete. Thus, calculation of exit compliance is not accurate."

- **Supports resource allocation decisions for law enforcement officers.** "Confidence in the entry-exit record of the in- scope traveler would be increased if the collection of exit data and recording of exit data were automated, and the identity of the in-scope traveler could be assured."

Solution

A biometric air/sea exit solution is available right now, as it was in 2009. It requires no infrastructure changes to airports, and can be deployed immediately. Neither TSA nor airlines need be directly involved; CBP should be fully responsible for implementation, management, and processing, as required under the 2013 Homeland Security Appropriations Act. Today, unmanned options that require only monitoring and customer support are available. The system would inform immigration law enforcement on overstays and reduce enforcement costs, and inform intelligence and law enforcement officials of terrorist and criminal departures.

The air/sea exit solution is based on biometric and airline industry queries, an extensive review of both the June 2009 US- VISIT Air Biometric Evaluation and the 2008 regulatory cost analysis by US-VISIT, and a review of both mature and newly implemented biometric border-control solutions deployed internationally.

Note that CBP, responsible for border protection and inspection within DHS, has conducted multi-modal biometric air entry processing since 2007 (based on a photo and 10 fingerprints). The current entry processing had significant infrastructure, interview, and biometric requirements that were successfully implemented — all of which are not required for an air/sea exit deployment. Solutions are mobile, manned or unmanned, and employ proven technologies that can facilitate processing of large volumes of foreign nationals without any significant

impediments to travel. In short, deploying a biometric exit solution is much easier to put in place than the biometric entry solution installed in 2005.

Key Elements of a Successful Deployment

**Review of All Relevant Materials.** Recent industry letters to Congress — listed as appendices at the end of this report — pro- vide information specifically on cost and feasibility. The first is a detailed letter and separate memo from leading biometric provider, Safran MorphoTrak, formerly Sagem Morpho, which services the Automated Fingerprint Identification Systems (AFIS) in 28 states and 30 counties as well as immigration biometric entry/exit systems internationally. The second is a de- tailed letter from the International Biometrics & Identification Association relating current costs for full deployment of an air/sea biometric exit, and a "myths vs. facts" sheet. The last section of this report summarizes international deployments of biometric border solutions.

**Applicability Only to Foreign Nationals.** Departure requirements would not apply to U.S. citizens, but rather only to for- eign nationals, including (1) foreign visitors seeking visas at consular offices overseas; (2) legal immigrants seeking immigra- tion benefits in the United States; and (3) any foreign nationals granted temporary legal status, including those enrolled in any amnesty program.

**Use of Proven Technologies.** Air and sea infrastructures should integrate proven passport capture and biometric technol- ogy currently used in international immigration settings, by OBIM, and by U.S. law enforcement. Numerous vendors offer off-the-shelf mobile, kiosk, and e-gate fingerprint, facial recognition, and even iris and retina scan technologies. Fingerprint scanners, for example, are available as both contact and contactless and would be rather easily incorporated into OBIM's existing fingerprint system management. Some operate as quickly as two seconds. The goal is to minimize cost, maximize speed, and assure the integrity of the departure data while protecting the data's privacy and security.

**"Exit" Data Captured.** The system would link the reading of the passport and fingerprint data captured at the port of entry in real time to the existing Arrival and Departure Information System, the same system used now to record biometric entries and receive electronic manifest departure data.

**Mobile Infrastructure and Technologies.** Air and sea ports should be given a menu of options listing a handful of approved technologies that will most efficiently ensure an exit protocol that achieves immigration control without exorbitant costs or flow-through issues. Kiosks, e-gate zones, and handheld devices are all potential options, depending on the different needs of various jetway configurations. Such options exist currently at air, sea, and land ports around the world today.

**International Air Travel Statistics.** According to the Department of Commerce, the fee revenue should continue to rise if air exit is deployed within the next two to four years. The April 2013 press release reads "U.S. Commerce Secretary John Bryson today announced that the United States can expect 4-5 percent average annual growth in tourism over the next five years, and that 65.4 million foreign travelers are projected to visit the United States in 2012 alone. The

Spring 2012 Travel and Tourism Forecast, released semi-annually by the U.S. Commerce Department's International Trade Administration (ITA), predicts continued strong growth through 2016 following two consecutive visitor volume records set in 2010 and 2011."

The 65 million foreign visitors include all entries by air, and sea, as well as those land entries that are recorded (many are not, since passport inspection of vehicle passengers is visual, unless there is a secondary inspection referral). Statistics on foreign air travelers are provided by the Commerce Department's Office of Travel and Tourism Industries in "International Visitation to the United States: A Statistical Summary of U.S. Visitation (2012)". The report's statistics show that all air visitors — most of whom are now required to pay security application or visa application fees — totaled 39.6 million. The breakdown is as follows: Air visitors from Canada increased 3 percent from 2011 to 2012, with 7,695,000 visitors in 2012; air visitors from Mexico increased 9 percent from 2011 to 2012, with 2,117,951 visitors; and all other nations combined increased 7 percent from 2011 to 2012, with 29,761,038 total overseas visitors.

To clarify further that most of the increase in the entry of foreign nationals will likely be by air, this same report summarized the countries of origin where tourism is currently increasing the most: "Top inbound countries with the largest increases in visits in 2012 were: the People's Republic of China (excluding Hong Kong) (+35 percent), Colombia (+21 percent), Venezuela (+20 percent), Argentina (+20 percent) and Brazil (+19 percent). All five countries set new records for visits to the United States." Near all entries from these countries are by air.

**Funding.** A $10 increase in the current $14 Electronic System for Travel Authorization (ESTA) fee for a newly created Bio- metric Exit Trust Fund, for a total fee of $24, could be implemented to cover costs. ESTA is a tax paid by Visa Waiver ap- plicants for pre-admission screening when they make travel plans to the United States. Current law requires that only $4 of the fee be used by CBP to support the ESTA program, while $10 is used by "Brand USA" to promote tourism to the United States. Another $10 for a biometric exit — the same amount already provided to promote tourism — should not be too much to ask to help enforce the nation's immigration laws and implement a recommendation of the 9/11 Commission to ensure our security.

In addition, a $10 increase in visa application fees for those foreign nationals not eligible for Visa Waiver status would cover the remaining costs. Applicants in many visa categories spend well over $100 already. Another $10 is a modest addition con- sidering all the other costs of travel and immigration.

Based on the current level of foreign air arrivals, without even taking into account the projected increases in foreign tourism, these fee increases could raise $400 million in the first year alone, more than enough to deploy an air/sea exit solution in a quick, phased approach over two years, and without incurring debt.

Any funds left over could be used to maintain and improve exit, implement full interoperability of immigration databases with other immigration components, and to enforce immigration law against visa overstays.

Feasibility

This section covers the feasibility, cost, and background issues for immediate, full implementation of a biometric air/sea exit program. In 2009, congressional appropriators required two airport biometric pilot programs before appropriating further monies for exit. One pilot tested handheld biometric-biographic devices at TSA checkpoints at Atlanta's Hartsfield-Jackson International Airport, the other required CBP to screen departures with mobile laptops configured for a biometric-biographic exit on the jetway at Detroit Metropolitan Airport. Both worked well. Airlines refused to participate in the pilot programs, reiterating the argument that exit, like entry, is primarily a government function.

The study's conclusion was: "Overall, the Air Exit Pilots confirmed the ability to biometrically record the exit of aliens subject to US-VISIT departing the United States by air."

In the one month of processing between June and July 2009 — heavy international travel times — the study found that "The Customs and Border Protection pilot at the jetway in Detroit processed 9,448 aliens and identified 44 watch list hits and 60 suspected overstays. The TSA pilot processed 20,296 aliens subject to US-VISIT and identified 131 watch list hits and 90 overstays", for an aggregate of "hits" of 1.10 percent for the CBP pilot and 1.09 percent of the TSA pilot.

The study also found that line lengths at the TSA checkpoint did not increase, and CBP officers on the jetway had little to no impact on departure times. The biometric exit solutions caused no costs or delays in travel queues that increased flight delays or resulted in missed flights. In addition, 99.99 percent of those identified to participate in the study, did participate — only one person in 30,000 refused. The study further found that DHS databases were able to maintain the quality and matching requirements using the fingerprints collected, assuring that people were who they said they were, and their exit data correlated to their identity.

This pilot program verified that a successful biometric exit can be as minimal as providing a fingerprint match and passport "swipe" to assure identity of a travel document holder who has departed. Exit deployment is thus significantly less complicated than the biometric entry system in place today that takes a digital photo and 10 fingerprints of each of the annual 170 million foreign visitors. Since the 2009 pilots, technology has significantly improved, cost has declined, and options — including unmanned but mandatory multi-modal (more than one biometric) biometric-biographic solutions — are in operation around the world.

Technology Today Is Better, Faster

Biometric technology is significantly improved over the 2009 US-VISIT findings:

- Processing is significantly faster, requiring less than two seconds for fingerprint capture in some cases and many complete biographic-biometric options operating in less than 20 seconds for full processing. In contrast, biographic entry operates at about a minute per traveler, and even in 2009 full processing was expected to take 66 seconds per passenger.

- Many solutions are multi-modal, allowing a simultaneous read of the digital photo stored in an e-passport matched against a real time facial image taken during departure, alongside a fingerprint scan that conducts a match against arrival fingerprint records, and the input of biographic passport data. Some systems also upload watchlists and cull in real time, for security purposes.

- Mobile units designed for flexibility and efficiency, enable throughput to be maximized based on the volume of passengers and assuring that no infrastructure changes are required. These mobile units can come in a variety of formats, including handheld devices, see-through lightweight "e-gates", and mobile kiosks.

- Most systems are unmanned, enabling self-checkout, fast throughput, the highest levels of security, passenger convenience, and high efficiency for border personnel.

- Systems are fully encrypted to protect privacy and data integrity.

Eliminating Air Carriers from Processing

The 2007 Visa Waiver Act places collection of biometrics squarely on air carriers. To date, the air carriers have successfully blocked implementation of any exit program that places the onus of collection on the carriers, citing hidden costs, slowing of throughput, and passenger dissatisfaction. From an oversight perspective, the chief concern of Congress should be to eliminate air carrier concern by simply voiding the current mandate that the air carriers collect biometric data of departing aliens. Not one country in the world currently requires air carriers to collect this data, and for good reason: air carriers should not be in the business of administering immigration inspection, which is a government function.

Moreover, if CBP already conducts thorough biometric inspections at entry, that same entity should be ultimately responsible for implementing, managing, and processing "inspections" at exit. As enforcement action will not take place at exit except in exigent circumstances, few personnel will be required. In exceptional cases, such as a terror investigation, the FBI would likely be the arresting authority, not CBP. All in all, there is no reason to involve air carriers in processing or enforcement due to information arising from data acquired during departure.

Deployment to All Air Exits

While about 40 percent of international travel is concentrated in the United States' top 30 international airports, the remaining 40 international and other airports slowly accrue the remainder of international air travel. Thus, any solution must incorporate these smaller volume airports. The easiest way to do so would be to minimize manpower and airport outlay by simply enabling smaller airports to install mandatory kiosks or e-gates as a subset of the security processes already in place, taking the place of the current TSA "document check". At larger air and sea ports, where CBP already has manpower deployed for biometric entry, minimal manpower would be necessary to ensure compliance and customer support.

## Table 1. International Passenger Throughput at U.S. Airports

| Int'l. Vol. Rank | Total Vol. Rank | City, State | Airport | International Passengers (2012) | Percent of Total | Cumulative Percent |
|---|---|---|---|---|---|---|
| 1 | 6 | New York, N.Y. | John F. Kennedy | 12,362,982 | 7.228 | 12.674 |
| 2 | 12 | Miami, Fla. | Miami | 9,314,482 | 5.446 | 17.534 |
| 3 | 3 | Los Angeles, Calif. | Los Angeles | 8,312,655 | 4.860 | 20.795 |
| 4 | 14 | Newark, N.J. | Newark Liberty | 5,577,111 | 3.261 | 23.75 |
| 5 | 2 | Chicago, Ill. | O'Hare | 5,055,210 | 2.955 | 26.542 |
| 6 | 1 | Atlanta, Ga. | Hartsfield-Jackson | 4,775,512 | 2.792 | 29.205 |
| 7 | 7 | San Francisco, Calif. | San Francisco | 4,554,495 | 2.663 | 31.679 |
| 8 | 11 | Houston, Texas | George Bush Int. | 4,231,034 | 2.474 | 33.56 |
| 9 | 23 | Washington, DC | Washington Dulles | 3,216,822 | 1.881 | 35.252 |
| 10 | 4 | Dallas/Ft. Worth, Texas | Dallas/Ft. Worth | 2,893,161 | 1.692 | 35% |
| Top 10 | | | | 60,293,464 | | |
| 11 | 27 | Honolulu, Hawaii | Honolulu | 2,175,234 | 1.271 | 36.523 |
| 12 | 19 | Boston, Mass. | Logan | 2,017,761 | 1.179 | 37.702 |
| 13 | 18 | Philadelphia, Pa. | Philadelphia | 1,857,908 | 1.086 | 38.788 |
| 14 | 13 | Orlando, Fla. | Orlando | 1,819,449 | 1.064 | 39.852 |
| 15 | 21 | Ft. Lauderdale, Fla. | Ft. Lauderdale-Hollywood | 1,681,772 | 0.983 | 40.835 |
| 16 | 17 | Detroit, Mich. | Detroit Metropolitan | 1,567,832 | 0.917 | 41.752 |
| 17 | 15 | Seattle, Wa. | Seattle-Tacoma | 1,546,825 | 0.904 | 42.656 |
| 18 | 8 | Charlotte, N.C. | Charlotte Douglas | 1,449,033 | 0.847 | 43.503 |
| 19 | 9 | Las Vegas, Nev. | McCarran | 1,392,926 | 0.814 | 44.317 |
| 20 | 10 | Phoenix, Ariz. | Sky Harbor | 1,097,825 | 0.642 | 44.959 |
| Top 20 | | | | 76,900,029 | | 45% |
| 21 | 16 | Minneapolis, Minn. | Minneapolis/St. Paul | 1,081,820 | 0.632 | 45.591 |
| 22 | 5 | Denver, Colo. | Denver | 869,908 | 0.509 | 46.1 |
| 23 | 20 | New York, N.Y. | LaGuadia | 728,847 | 0.426 | 46.526 |
| 24 | 22 | Baltimore, Md. | BWI Thurgood Marshall | 272,250 | 0.159 | 46.685 |
| 25 | 28 | San Diego, Calif. | San Diego | 264,694 | 0.155 | 46.84 |
| 26 | 31 | Portland, Ore. | Portland | 239,359 | 0.14 | 46.98 |
| 27 | 29 | Tampa, Fla. | Tampa | 217,092 | 0.127 | 47.107 |
| 28 | 43 | San Antonio, Texas | San Antonio | 209,343 | 0.122 | 47.229 |
| 29 | 25 | Washington, DC. | Ronald Reagan | 190,208 | 0.111 | 47.34 |
| 30 | 26 | Chicago, Ill. | Midway | 188,144 | 0.11 | 47.45 |
| Top 30 | | | | 81,161,694 | | 47% |
| 31 | 24 | Salt Lake City, Utah | Salt Lake City | 182,281 | 0.107 | 47.557 |
| 32 | 40 | Santa Ana, Calif. | John Wayne | 122,906 | 0.072 | 47.629 |
| 33 | 30 | Cleveland, Ohio | Cleveland Hopkins | 99,280 | 0.058 | 47.687 |
| 34 | 38 | Raleigh-Durham, N.C. | Raleigh-Durham | 94,539 | 0.055 | 47.742 |
| 35 | 42 | San Jose, Calif. | Norman Y. Mineta | 83,955 | 0.049 | 47.791 |
| 36 | 34 | Oakland, Calif. | Oakland | 68,405 | 0.04 | 47.831 |
| 37 | 45 | Pittsburgh, Pa. | Pittsburgh | 60,089 | 0.035 | 47.866 |
| 38 | 46 | Milwaukee, Wisc. | General Mitchell | 47,037 | 0.028 | 47.894 |
| 39 | 39 | Sacramento, Calif. | Sacramento | 44,546 | 0.026 | 47.92 |
| 40 | 32 | St. Louis, Mo. | Lambert | 27,629 | 0.016 | 47.936 |
| Top 40 | | | | 81,992,361 | | 48% |
| Total Int. | | | | 171,039,012 | | |

This table was derived from Bureau of Transportation statistics of international passenger flow determined by querying the departure information by searching each of the "all major airports" and then querying all other international airports to determine a ranking in terms of 2012 international passengers departure throughput here. The total international passenger throughput for all airports is found at the same link, by clicking "all" in the airport search engine in the top right search. The ranking for airports and initial determination as to the largest airports, was taken from the 2012 North American (ACI-NA) top 50 airports spreadsheet found on the Council for International Airports' website. The percentages were determined based on this information.

[Footnote reprinted to include links]:

This table was derived from Bureau of Transportation statistics of international passenger flow determined by querying the departure information by searching each of the "all major airports" and then querying all other international airports to determine a ranking in terms of 2012 international passengers departure throughput here. The total international passenger throughput for all airports is found at the same link, by clicking "all" in the airport search engine in the top right search. The ranking for airports and initial determination as to the largest airports, was taken from the 2012 North American (ACI-NA) top 50 airports spreadsheet found on the Council for International Airports' website. The percentages were determined based on this information.

CBP should be encouraged to engage airports to choose the most cost-effective solutions for their infrastructure and passenger thoughput needs. Flexibility in solutions would allow airports with CBP to choose from an approved menu of solutions depending on airport infrastructure design and the large differences in throughput that would best fit the needs of particular departure jetways. The same would be the case for seaports.

According to Department of Transportation statistics on international air travel at 150 U.S. airports that provide international service, over 171 million passengers departed from the United States on international flights in 2012. In 2012, the top 10 airports represented about 35 percent of international departures, while the top 20 only increased the throughput by another 10 percent, at 45 percent of that travel. The top 30 airports represented 47.5 percent of that travel. The top 40 airports represented only 48 percent of that travel, a significant drop in volume. The remaining middle- and smaller-sized international airports only have a few thousand international departures annually. All totaled, 110 of the 150 airports together amount to 52 percent of the international departure traffic, with each producing less than a 1/2 of 1 percent of all traffic.

For example, John F. Kennedy Airport in New York receives almost 12.4 million international passengers annually. In contrast to JFK, Minneapolis, ranked 20th, at 1,081,000 international departures, produced just 10,000 in volume to JFK's December 2012 throughput of 1,071,000. Miami, ranked second, produces significantly less volume than JFK at just over 9.3 million. Washington, D.C.'s Dulles Airport ranks 9th, at just under 3.2 million. The top 30th airport, Washington D.C. Ronald Reagan Airport ranks at 190,000 per year. New Orleans (not in Table 1) ranks at 50, with only about 22,000.

Cost

**Industry Costs.** The International Biometrics & Identification Association (IBIA) calculated its cost range based on the same 2008 DHS cost study used in the cost chart in this report, concluding costs of approximately $9 million for handheld fingerprint/passport readers (requiring an immigration inspector to man each device) to $200 million for biometric and boarding pass/passport reader e-Gates (requiring only one immigration inspector to man many devices at one time). These cost estimates were obtained by Sen. Jeff Sessions (R-Ala.) from industry representatives during consideration and markup of immigration reform legislation. The goal was to answer cost and feasibility questions regarding implementation of a biometric exit. The information attached to this report from Morphotrak and the IBIA are reproduced here with

the senator's express permission. Morphotrak's cost estimates for the top international airports representing 40 percent of the international traffic is $90 to $150 million for hardware and software depending on the solution chosen, including customization.

**Added Values that Reduce Costs in Other Government Functions.** The 2008 "Air/Sea Biometric Exit Project Regulatory Impact Analysis" noted the following improvements over a biographic exit system provided by an air/sea biometric exit system that provided added value and reduction in overall costs to the immigration system and national security:

- "Improved detection of aliens overstaying visas" (300 ICE agents do overstay analysis today).
- "Cost avoidance resulting from improved Immigration and Customs Enforcement (ICE) efficiency attempting apprehension of overstays" (in 2007, costs for removal per visa violator was $18,375 per individual).
- "Improved efficiency of processing Exit/Entry data".
- "Improved national security environment".

**Manpower and Other Costs.** Manpower costs for CBP to assure and support processing would vary depending on choice of biometric solution; some mobile solutions require only monitoring and support, thus significantly reducing CBP manpower costs. The more popular international choice, e-gates, require little or no manpower. Handheld devices, in contrast, require a reader per inspector.

**Total First Year Deployment Cost.** Aggregating the 2008 US-VISIT impact analysis data and industry data, the greatest total cost for first year technology implementation would be approximately $400-600 million, depending on collection units chosen. The more expensive units do not require an attendant per reader, but a single monitoring attendant who can supervise a number of mobile kiosks at once.

- The 2008 US-VISIT analysis assumes that the solution would be deployed to 73 international airports and 33 seaports, for a total of 11,990 individual devices (9,248 at airports and 2,742 at seaports). This may be significantly higher than actually necessary considering today's new e-gates and kiosk technology. Thus, the 2008 numbers here are likely significantly higher than actual cost for deployment.
- The 2008 analysis also calculated costs based on a 66.6 second processing time per alien. This number today would likely be less than 20 seconds per alien.

## Table 2. Costs for Full Deployment to 73 International Airports and 33 International Seaports

| Description | Cost | 2008 US-VISIT Regulatory Impact Analysis for Biometric Air/Sea Deployment- Table Reference |
|---|---|---|
| Program Management | $59,830,000 | A-7 (15 percent of total program cost, as remainder resides with provider) |
| Independent Verification and Validation | $1,990,000 | A-8 (1% of total program cost) |
| Site Surveys for Air and Sea Ports | $5,054,000 | A-9 |
| IDENT (Fingerprint) Upgrades (Storage and Match) | $12,458,000 | A-10 |
| CBP Development Costs | $3,473,000 | A-11 |
| Arrival Departure Information System Upgrades | $2,447,000 | A-12 |
| Application Development | $126,958,000 | A-13 |
| Software Testing | $18,054,000 | A-17 |
| Software Deployment | $12,164,000 | A-19 |
| Develop and Test Hardware | $2,896,000 | A-24 |
| Data Communication Circuits | $225,000 | A-25 |
| Network Connectivity Costs | $9,220,000 | A-26 |
| Travel Delays | 0 | 2009 US-VISIT Air Pilot Exit Evaluation Report found no travel delays in two different air biometric exit environments |
| Risk Factor | 127,385,000 | Assumes a 50 percent risk factor on unanticipated development/deployment costs |
| Training of CBP and Government Partners Using Exit Solution | $2,139,000 | A-35 |
| Outreach | $10,000,000 | A-36 (5 percent of total program cost less program management, devices and training costs) |
| **Subtotal** | **$394,293,000** | |
| **Total range for collection device for fingerprint and passport Morphotrak/IBIA** | **$9,394,000 to $201,300,000** | Lowest handheld reader costs and highest e-gate costs (as per International Biometric & Identity Association) |
| **Total** | **$403,687,000 to $595,593,000** | |

- The 2008 analysis determined that about 52 million aliens would exit each year through air and sea ports, which is significantly more than entering today.

- This chart does not include airport infrastructure change costs, as these are not necessary with mobile solutions.

- Personnel costs are not included, as current solutions require only monitoring for multiple machines, not an attendant per device; the 2008 assessment included over 5,000 attendants required for all air and sea ports assuming an attendant per device for 18 hours a day, seven days a week at airports, and six hours a day, four days a week at seaports at about $60,000 per officer or about $300 million annually. In addition, costs were based on average salaries for air carrier personnel, not CBP. Thus, it was impossible to transfer or use personnel costs from the 2008 assessment. However, assuming three agents for every four gates at $50,000/year/agent, that cost would be about $39 million annually. The ongoing personnel cost as determined by CBP is easily covered by relatively small ESTA and visa fee increases as discussed above.

- Technology costs for air carrier collection of data, and transfer of that data between air carriers to the government, is not relevant as it was in 2008.

- Time per foreign national enrollment in exit average about one minute or more in 2008; that time is now reduced to anywhere between two seconds and twenty seconds per foreign national, also reducing both technology and labor costs.

- The 2008 analysis calculated the devices at $7,700 apiece for a total of $35.5 million in cost. The price of the devices discussed in this report vary, depending on the solution provided.

- Morphotrak costs were recalculated for full deployment, using the DHS numbers in the 2008 assessment of 106 combined airports and seaports. This report assumes that CBP would require the same deployment to the same listing of airports.

- High-end collection devices require only supervision of multiple devices at once, not collection and personnel per reader.

- Costs not included from the 2008 assessment are either no longer relevant without air/sea carrier involvement nor infrastructure changes needed, or would be covered by the provider.

Biometric Systems Worldwide

The United States has failed to create the efficiencies and effectiveness that the rest of the world is realizing in biometric entry/exit systems. In fact, The Biometrics Institute (based in Australia), an international forum representing governments, suppliers and researchers in its published 2013 survey said that the number one most significant trend noted by its members for this year was Biometrics at the Border. The solutions vary from fingerprint and facial recognition devices to iris scan technologies; from manned to unmanned stations; from land to air to sea programs; from guestworker to entry/exit solutions. Biometrics is considered the foundation for optimization of passenger processing, and thus integral to the future trend in airline and immigration processing where the mission is to increase self-service, drive efficiencies, reduce queues, and simplify processing for passengers.

For example, Saudi Arabia has been using iris recognition technology since 2002 to manage the huge influx of visitors during the Hajj, using the system to both enhance security and prevent visa overstays. One vendor already has 30 government clients for its automatic facial recognition border solutions throughout the world. Another vendor verified in a 2010 DHS National Institute of Standards and Technology report that it has excellent facial recognition software for border control environments, which is now being installed throughout the European Union. Some places, like Amsterdam, are already on their second-generation deployment of biometric border controls.

Biometric border systems are not necessarily concentrated in developed countries; less-developed countries are deploying, or have already deployed, biometric systems to control their borders. Some are doing so with help from the U.S. government. Others are doing so with next-generation technologies. Some international airlines are testing biometrics to replace paper tickets and multiple presentations of travel documents prior to boarding. In the United States, Chicago O'Hare International Airport recently began automating some of its immigration controls for arrivals. The most advanced systems, such as New Zealand's second-generation deployment, are integrating airline check-in and boarding with immigration entry/exit. This section summarizes many of those advances.

International Airport Entry/Exit Systems

Biometric entry and exit immigration systems are deployed worldwide to enhance security, customer experience, and facilitation. Some countries, such as New Zealand, are deploying second-generation systems that incorporate passenger check-in and ticketing. Facial recognition, iris, and fingerprint technologies all provide amplified benefits and relatively negligible differences in speed and accuracy from each other; all are markedly better than any "enhanced biographic" system. Many of these systems are unmanned, and while immigration or customs officials are on site to conduct inspections as necessary, their deployment is efficient, allowing the technology to conduct exit data recording and identity verification, while facilitating processing of all others.

Abu Dhabi. Abu Dhabi was one of the first countries to deploy a biometric border entry/exit system. Its primary purpose was to make sure that those "expelled" from the country did not change their name, obtain a new passport, and return with a new identity that a biographic system could not discern. From a 2004 article:

> *Over a distributed network involving all 17 air, land, and sea ports into the Emirates, the iris patterns of all arriving passengers are compared in real-time exhaustively against an enrolled central database. According to the Ministry of Interior, which controls the database, so far not a single false match has been made, despite some 2.7 billion iris cross- comparisons being done every day.*
>
> *On a typical day, more than 6,500 passengers enter the UAE via seven international airports, three land ports, and seven sea ports. By looking at an iris camera for a second or two while passing through immigration control, each passenger's iris patterns are encoded mathematically and the resulting IrisCodes sent over a distributed*

*communications network to a central database controlled by the General Directorate of Abu Dhabi Police. There they are compared exhaustively against an enrolled database of 420,000 IrisCodes of persons who were expelled from the UAE for various violations, many of whom make repeated efforts to re-enter the UAE with new identities using forged travel documents. Thus the current daily number of iris cross-comparisons performed under the UAE expellee tracking and border-crossing control system is about 2.7 billion. It is the first system of its kind in the world, with more than 2.1 million arriving passengers already checked in this way. The time required for each passenger to be compared against the full database of registered IrisCodes is less than one second.*

*So far more than 9,500 persons have been caught by this system travelling with forged identities. According to Lt. Col. Ahmad Naser Al-Raisi, Director of the Information Technology Department at the General Directorate of Abu Dhabi Police, "We found the system to be very effective and extremely fast. Its speed, accuracy, and ease-of-use enabled us to deploy the project without difficulties."*

Australia. U.S. Global Entry members can now use a new biometric gate system, based on a combined protocol between U.S. and Australian Customs and Border Protection using facial recognition technology. These e-gates are similar to the ones deployed in New Zealand (see description below). U.S. Global Entry is a CBP "trusted traveler" program that allows expedited clearance for pre-approved, low-risk travelers upon arrival in the United States who, instead of standing in line for inspection by a border agent, can enter the United States by using automated kiosks located at select airports. Rigorous background checks are required for participation. Upon arrival, Global Entry participants scan their machine-readable passport or U.S. permanent resident card at the kiosk, place their fingertips on the scanner for fingerprint verification, and make a customs declaration. The kiosk issues the traveler a transaction receipt and directs the traveler to baggage claim and the exit.

Bulgaria. Bulgaria's Sofia Airport has installed automated border clearance using both e-passports and facial recognition technologies that process passengers in 7-10 seconds. The new gates are available for European and Swiss travelers over 18 years of age. Border inspection desks still exist for those who do not qualify for the expedited processing.

Canada. The Canada Customs and Revenue Agency began using iris recognition technology for frequent travelers at Toronto and Vancouver International Airports in 2003. The Expedited Passenger Processing System uses iris recognition technology to conduct matching on those pre-registered with the system, which includes both Americans and Canadians registered in the trusted traveler NEXUS program. Today iris recognition technology is used to verify visitors through NEXUS at eight major Canadian international airports in addition to Vancouver, at Calgary, Edmonton, Winnipeg, Toronto, Ottawa, Montreal and Halifax.

Czech Republic. The Czech Border Police's installation of an entry/exit e-gate system at Prague's Vaclav Havel Airport won the Czech Republic's "IT Project of the Year" in 2012. The Czech Minister for the Interior said this about the system: "The EasyGo project is a practical example of how biometric IDs can be used. The highly developed solution offers a self-service for crossing the border with a high level of security and saves the passengers time." The

software solution combines individual biometric components such as passport readers or cameras with background systems. According to the vendor, crossings are completed in an average speed of 18 seconds per person. The system has already had over 130,000 passengers from European Union countries use the system.

Ireland. The Irish Naturalisation and Immigration Service and Dublin Airport Authority implemented an automated facial recognition border control gate pilot at Dublin Airport beginning in May 2013, verifying that the passport holder is the same individual seeking to enter Ireland and is authorized to do so. The system operates in about 7.5 seconds and the pilot is processing about 1,000 passengers per day. Authorities are already noting that staff workload is reduced, document fraud is better prevented, and border control waiting times are reduced. If verification fails, the passenger is led directly to the manual passport control without blocking the passenger flow. A spokesman for the vendor said, "There needs to be more convergence, too — the sharing of information between airports, airlines and authorities. Using biometrics for identification could lead to more secure, more comfortable and faster processes."

Alan Shatter, Minister for Justice, Equality and Defense, commented: "Border control arrangements at Dublin Airport are currently undergoing major change. Immigration control processes are being reviewed and leading-edge border technology such as automated gates is being tested. Many major European airports are adopting a similar trend towards the deployment of automated gates for immigration control functions to enhance passengers' experience on arrival at airports while also strengthening border security."

European Union. European Union member states began implementation of recommendations to move to self-service border control using automated border control gates that incorporate facial recognition, and optionally fingerprint verification, run against e-passport data for verifying the passport belongs to the passenger. The EU recognizes that unmanned gates that only require manual intervention by an immigration officer in rare cases when a match is unsuccessful reduce immigration personnel requirements and wait times, increase airline activity, and produce more revenue at the airport. The particular face recognition algorithm used by the EU is listed as one of the best by the National Institute of Standards and Technology (NIST), in testing commissioned by DHS.

Ghana. With the help of the World Bank, Ghana Immigration Services (GIS) is implementing an electronic visa and border management electronic entry/exit gate solution that will enable intelligence and law enforcement information sharing in real time. Ghana has become increasingly concerned with its cross-border traffic, and will now be able to supervise and manage an automated passport inspection while recording border crossings using entry and exit data recorded into the system. All ports of entry will be automated, including Accra's Kotoka International Airport. In addition, Ghana is deploying a biometric visa processing system.

France. Paris's major international airport, Charles de Gaulle, now has 33 fingerprint automated border gates since deployment after a successful 2009 pilot. These gates have processed more than one million individuals departing France since their installation. The French claim that e-gates are a win-win, with passengers spending more time shopping in duty-free areas and shorter lines. The e-gates assure that only one person is in the gate, detect abandoned luggage, and then

verify the passenger's identity. In 2012, French citizens holding biometric passports could also use the gates.

The success of the program has resulted in the first deployment to a regional airport, the Marseille Provence airport. "We will now be targeting deployment of our systems in other international airports throughout France," explained Jean-Paul Jainsky, Morpho Chairman & CEO. "With a very low rejection rate — less than 3 percent — and proven technology, biometric gates are an iron-clad investment. In the future, other biometrics such as face or iris registration, might be added to the PARAFE system, it should make life easier for the millions of travelers using European airports."

Indonesia. A biometric border solution installed at nine airports and one seaport in Indonesia in October 2011 can match and manage up to 20 million unique biometric identities. The first installation was completed in six months in one of Indonesia's largest airports that handles 10 million international passengers a year. The system provides real-time matching against a biometric watch-list. The technology is multi-modal, "capturing face and fingerprint data of arriving travelers and manages it in a person-centric database of identities. Duplicate identities are consolidated into a single person record allowing people who are claiming multiple identities to be easily tracked. This data is used by all departments to prevent identity fraud, including controlling the issue of stay permits, and managing primary line operations and illegal migrant activity."

Latvia. Self-boarding gates at Riga International Airport allow passengers to use a combination of iris, fingerprint, and facial recognition biometric technologies to validate identity and process information. The gates can process both a printed boarding pass as well as a digital boarding pass displayed on a smartphone. "This project enabled us to provide a better service to those visiting us and at the same time improve the overall airport operational efficiency and passenger flow. In the first day of operation the self-boarding gates served more than 1,000 passengers and the objective is for this number to continue to rise," according to Raimonds Arajs, Riga Airport's IT Director.

The Netherlands. The first deployment of a biometric border entry system was in October 2001 when an iris recognition system was installed at Amsterdam's Schiphol Airport. The system expedites the way for travelers from 18 European countries into the Netherlands, including frequent travelers in a two-phase process. Enrolled travelers pay $89 annually for the service, which allows them to bypass long immigration lines. Similar to U.S. land border trusted traveler programs, passengers undergo a background check and a passport review. Users also undergo an iris scan. The template is encrypted and embedded on a smart card. This phase takes about 15 minutes but once the passenger has the smart card, it can be used for each entry through Schiphol airport. Once the individual has the smart card, instead of standing in line, the smart card is scanned at the immigration checkpoint, identifying and verifying the registered traveler. Each time the smart card is scanned, it is compared with a real-time scan of the iris. This process typically takes about 10 to 15 seconds.

In 2006, the system was upgraded for a quicker process for both arrivals and departures with improved security, deploying automated border control e-gates that use facial recognition

technology to verify identity against the digital photo embedded in the e-passports. As of January 2013, one million travelers have used these automated border control e-gates at Schiphol. There are a total of 36 units at the airport, located in the Departure 3, Arrival 3 and transit areas between Schengen and non- Schengen.

New Zealand. The New Zealand Customs Service has rolled out a next generation of SmartGates at its largest airport, Auckland International, an upgrade to their SmartGate system implemented in 2009. As of July 2013, six million passengers have used the current system, and more than 70 percent of those eligible to use the system do so. Customs officials state the technology is so precise that it allows them to focus on high-risk travelers while everyone else has an improved experience.

The latest version of the SmartGate creates a one-step concept for both boarding and security. The passport is scanned at the gate, eliminating the need for the kiosk and ticket. SmartGate Plus is a Morpho Australasia product that uses "face-on- the-fly" technology. A three-dimensional facial image of a user's face is taken as the individual approaches the gate and then compares it to the image stored in a presented e-passport. The individual barely has to slow down while the technology uses a 3D facial recognition for matching. The new system will be available for passengers over 16 years old carrying a New Zealand, Australian, U.S., or UK e-passport.

Saudi Arabia. At the King Abdul Aziz Airport in Jeddah, Saudi Arabia, iris recognition tracks and identifies the entry and exit of visitors on pilgrimage for the Hajj season of worship. The process includes a random check at passport control, database enrollment, and subsequent identification on departure. The systems ensure that visitors do not overstay their visas and also identify potential security threats.

Taiwan. In 2008, Taiwan set up a three-in-one fingerprint, face, and retina biometric system for Taiwanese nationals at major airports in 2008 at a cost of $1.2 million. The Taiwanese Ministry of the Interior is currently extending biometric immigration capture to both "unregistered" Taiwanese and foreign nationals at a cost of $6 million. This system will use a dual facial recognition and fingerprint technology captures. The purpose is to assure that departures have occurred and verify identity.

In comparing the new biometric system to a "photo tool," the Taiwanese Minister Chia-chi said: "Plastic surgery can change the way a person looks, but it cannot change biological features such as the distance between two pupils," Chia-chi said. "If the system fails to identify the person by comparing facial features, we would then check their fingerprints."

To date, more than 9,400 foreign nationals living in Taiwan registered for the new automated system. As of May 27, 40,459 entries and exits had been made through the e-gate system by foreign residents in Taiwan. Altogether, over 5.08 million entries and exists by both Taiwanese and foreign nationals have been recorded through the e-gates since the system was launched in 2011.

United Kingdom. The United Kingdom's Border Agency is requiring Manchester Airport to capture facial images of all departing passengers upon both entry into the departure terminal,

and again upon leaving the terminal, to assure that identity and immigration data is accurate and verified prior to boarding. Anyone refusing compliance is denied boarding.

Biometric Guest Worker Systems

Australia. Frustrated by illegal workers, overstays, visa fraud, and a $4 billion annual cost of identity fraud, Australia's immigration, law enforcement, and intelligence services now have access to digital fingerprints and photos from driver's licenses, nightclubs, and passports. In addition, facial recognition and fingerprint software is required to verify worker eligibility. "According to the report in AustraliaForum.com, employers convicted of employing illegal workers face fines up to $13,200 and two years' imprisonment while companies face fines of up to $66,000 per illegal worker."

India. India is testing securing its maritime borders with biometric smart cards. BiometricUpdate.com notes that, "Set to start in September 2013, 800 local fishermen will initially be included in the test and an estimated 300,000 more would be covered. Reported in *The Hindu*, the government plans to use card readers at "harbour and authorized fish landing centres for authorities to verify the identities of fishermen, in an attempt to [prevent] terrorists from entering mainland India."

Singapore. Iris recognition is used to admit workers who travel into Singapore from Malaysia each day by motorcycle. The workers' irises are scanned by a camera installed in kiosks in designated lanes, instead of their having to present their paperwork to an official. About 50,000 workers cross the border each day.

Airline Boarding Systems

U.S. airlines have long fought current statutory requirements that require air carriers, not immigration authorities, to support departure processing of foreign nationals. Their arguments included that immigration is a government, not a commercial function; slows facilitation; decreases customer experience; and creates associated costs. All of these arguments are valid. However, assuming the inevitability of an exit system, the airlines have also supported a biographic departure system over a biometric solution for the same reasons of perceived slower processing and decreased customer satisfaction. International competitors of U.S. air carriers are proving the falsehood of these perceptions.

Instead, cutting-edge international air carriers are taking lessons learned from biometric border management and beginning to apply them to passenger check-in and boarding. These carriers recognize that enhancing security while decreasing hassle for travelers in a more seamless airport environment creates a safer and less stressful experience for everyone. Travel and tourism need not be pitted against security. Instead, biometric solutions pave the way for better business models for government, airports, and commercial airlines when identities are quickly verified, airlines require less or no paper tickets, and airports have the opportunity for increased commerce from the time saved with biometric border and check-in solutions.

Referred to as "SmartGates", "e-gates", or "self-boarding", airlines in conjunction with international airports are beginning to test biometric boarding for the similar reasons as

immigration authorities, to gain efficiency, facilitation, and heightened security simultaneously. International airlines and airports now see biometrics as the wave of the future, speeding up processing, reducing paper, and assuring identity. Heathrow Airport is the first to use these gates for airline processing.

United Kingdom. South African Airways is working in conjunction with London's Heathrow Airport in a "self-boarding" program that requires airline staff to only check a passenger's identity once during the departure process. Using self-boarding gates, passengers pass through an automatic electronic barrier that takes an infrared scan of their face. This information is checked against the biometric data that was taken at the check-in stage. If the data matches, the barrier opens and the passengers can pass through and board their flights. A Heathrow press release notes the following:

> *The technology means that a passenger's identity needs to be checked by airline staff only once in the whole departure process, reducing the time it takes for passengers to get to their seats ready for take off. It also allows airline staff to spend more time with those passengers who require greater assistance. The personal data is stored securely and will be destroyed at the end of the trial.*

Heathrow's Terminal One director, Ian Hanson, said this: "We are working in partnership with our airlines to trial this technology which should help make our passengers' journeys smoother and simpler. Since its introduction we have had positive feedback from both airlines and passengers." These gates are produced by the same company that built the Schiphol Airport e-gates that have processed over a million passengers.

Automated Customs Entry for U.S. Citizens at Chicago's O'Hare Airport
In May 2013, Chicago O'Hare became the first U.S. airport to implement a customs declaration kiosk that allows U.S. citizens to fill out a digital customs declaration, doing away with the paper cards provided on airlines prior to arrival. The 32 kiosks were provided by the Vancouver Airport Authority, which had recently undergone a successful trial of the kiosk technology, and installed on July 1, 2013. The touch-screen kiosks ask passengers a series of questions, then produce a paper receipt. The receipt is then presented to CBP personnel upon leaving baggage claim along with the current procedure of showing passport and boarding pass. The kiosks are free and require no prior registration. The automated procedure is designed to speed up departure from arrival zones.

According to Chicago Mayor Rahm Emanuel, "This technology will help expedite customs processing for passengers arriving to O'Hare, further strengthening Chicago as a global destination. Being the first airport in the U.S. to implement these advances demonstrates how serious we are about making Chicago the first, best and most welcoming city in the country."

While not a biometric solution and significantly less technologically advanced than other nations' biometric SmartGate and kiosk solutions, the endorsement and implementation of automated immigration procedures at an American airport by a major political figure is a significant step in the right direction, and bodes well for the nonpartisan nature of an automated, biometric exit solution.

BIOMETRIC INDUSTRY LETTERS

INTERNATIONAL BIOMETRICS & IDENTIFICATION ASSOCIATION

919 18TH STREET, NW, SUITE 901, WASHINGTON, DC 20006 USA

TEL 202.587.4855 FAX 202.587.4888 * WWW.IBIA.ORG

June 5, 2013

**Re: US- VISIT Biometric Exit**

Dear Senators:

The Honorable Jeff Sessions

326 Russell Senate Office Building Washington, DC 20510

The Honorable John Cornyn 517

Hart Senate Office Building Washington, DC 20510

The Honorable Dianne Feinstein 331

Hart Senate Office Building Washington, DC 20510

The Honorable Orrin G. Hatch

104 Hart Senate Office Building Washington, DC 20510

The Honorable Mike Lee

316 Hart Senate Office Building Washington, DC 20510

The Honorable Marco Rubio

284 Russell Senate Office Building Washington, DC 20510

On behalf of the members of the International Biometrics & Identification Association, comprised of the leading global providers of identification, we would like to thank each of you for your commitment and interest in fulfilling the mandate in both federal and regulatory law for implementing a biometric exit control system for foreign nationals. We appreciated your joint leadership and public commentary during the Senate Judiciary Committee markup of S. 744, "Border Security, Economic Opportunity, and Immigration Modernization Act."

As S.744 heads to the Senate floor for consideration, we are sending this letter to provide you with the specific information you requested on the feasibility of implementing a biometric exit as well as the cost of implementing the mandatory program.

In summary, the industry is confident that it can implement an effective, reliable and efficient biometric exit program at U.S. airports that process international travelers, using proven and reliable off the shelf technologies and without disrupting airline operations and passenger travel. The industry also believes that the use of biometrics will provide the low cost solution to a mandatory exit program, at a cost that is significantly less than the exceedingly uncertain and dated $3.5 billion cost estimate that has circulated (from "Air/Sea Biometric Exit Project", April 17, 2008, DHS- 2008- 0039- 002).

The International Biometrics & Identification Association (IBIA) is a non- profit trade group that advocates and promotes the responsible use of identification technologies for managing human identity in our digital world. The membership is comprised of global leaders who are involved in virtually all the major biometric government projects around the world as well as in the commercial and consumer mobile, financial, healthcare, and entertainment markets.

**Feasibility of Implementing US- VISIT Biometric Exit**

For the following reasons that are discussed in detail below, the identification technology industry is confident that it is feasible to implement a biometric exit:

1 This is not an untried program. Such systems are commonplace around the world.

2 US- VISIT has been highly successful, providing a strong foundation for a biometric exit.

3 Biometric exit leverages the biometric enrollment at US- VISIT entry.

4 Biometric exit will be simpler and more efficient than other suggested solutions and will

5 establish with a high degree of certainty that the person leaving the country is in fact the person who entered.

**Biometric entry/exit programs are commonplace around the world.**

Biometric entry/exit systems are already successfully deployed around the world, including Amsterdam, France, the United Kingdom, and other countries in the European Union, Australia, New Zealand, Hong Kong, South Africa, Israel, Saudi Arabia, and UAE. These systems use a variety of biometrics (fingerprints, iris, face), depending on their specific needs. Many of the companies represented by this letter are involved in these projects and have the expertise and experience to implement a biometric exit in the U.S.

**Biometrics is already the cornerstone of U.S. immigration programs.**

Biometrics are at the core of US- VISIT entry today. Under the current US- VISIT entry system, U.S. Government personnel take a digital photo and 10 fingerprints for all foreign nationals who enter the country at our international airports, including those who are required to obtain visas to enter the U.S. and those from visa waiver countries. For visa holders, these fingerprints are matched against the US- VISIT database and watch lists. If the fingerprints match those collected for the visa and there are no watch list alerts, and the individual does not exhibit behavior that requires further inquiry, they are admitted to the U.S. For visa waiver countries, the fingerprints are matched against the watch lists. If there are no hits, the person is admitted.

There are over 150 million fingerprints in the US- VISIT database and the search time per person is approximately 8- 10 seconds. This database handles over 200K total transactions per day. This includes an average of 30,000 queries a day by the Departments of Defense, Justice and State; local and federal law enforcement; Interpol and intelligence agencies to verify identities for the purpose of immigration, law enforcement and national security.

As background, the National Institute of Science and Technology (NIST), the organization that sets technology standards for the government, analyzed the feasibility of US- VISIT in 2004 at the request of DHS and concluded it was feasible. Indeed it should be noted that NIST determined the system's feasibility at the outset. The exceptionally successful record of US-VISIT in the past decade confirms NIST's conclusions.

The biometrics industry also has years of successful experience in large scale deployment at embassies and consular offices overseas where it is responsible for the intake of the digital photos and fingerprints that populate US- VISIT database today as well as at airports of entry.

In addition, other biometrics, such as face and iris, are available now and can be added to US-VISIT as the program expands to incorporate these so- called "stand- off" biometric technologies.

**Biometric Capture and Document Authentication Technology - How it Works at Exit.**

A biometric exit is technologically simpler than entry. After enrollment, the biometric search at entry requires searching against large- scale databases to identify whether a person is on a watch list. This requires 10 fingerprints and significant computational power.

In contrast, at exit, all that needs to be checked is whether the person leaving is the same person who entered the country through US- VISIT. There is no need to take another photograph, or to

search the large watch list databases. This search can quickly be done using two (2) fingerprints to match against the fingerprints of the claimed identity already in the record in the database.

The process on exit will require the passenger to first submit a passport or other travel document. The document number will lead to the traveler's record in the US- VISIT database. Then the traveler submits the two (2) fingerprints. If there is a match with the fingerprints in the file, the individual will be cleared to exit, unless there are behavioral questions that would justify further screening.

Biometric exit will be simpler, more accurate, and more efficient than other proposed solutions.

Checking biometrics on departure is the most accurate way to know with a high degree of certainty who has exited the country and, in the most efficient way. All that is required is to match the fingerprints of the visitor with the existing database the entry system has developed.

Comparing photos and documents visually, attempting to match names, and asking a few secret personal questions are not as effective as biometrics as a means of identification. In its recent FIPS 201- 2 publication, NIST concluded that visual inspection of credentials provides little or no confidence of identity, whereas adding biometrics provides a high degree of assurance of positive identity.

The proposal to use enhanced biographical data with 'secret personal' questions with no biometrics, does not provide identity with the high degree of certainty. Like Passwords, PINs, or other codes, the secret personal questions can easily be forgotten, lost, stolen, shared with others, or sold. Also, much of this data is collected from the web, which is notoriously incorrect, and the source of information for identity thieves who build virtual identities that they then use or sell. With this approach, both privacy and security are at greater risk.

Moreover, it is quite difficult to see how visual comparisons and asking questions is more efficient than processing biometrics on departure. This kind of processing is labor intensive and slower than an automated biometric check.

**Biometric Exit will not disrupt aviation operations or passenger travel.**

While we appreciate the concerns noted by certain aviation stakeholders that the mandatory biometric exit might be disruptive to operations and passengers, the identification technology industry believes that an effective and secure biometric exit control system can be implemented without disrupting airport operations, or unnecessarily delaying travelers, and, further that a biometric exit can facilitate exit and reduce the burden on airline employees. Some of this push- back revolves around the concern that airline employees will be "conscripted" to do the Exit processing.

*DHS 2009 biometric pilot found no traveler delays*

The findings of the 2009 US- VISIT pilot program, predicated on the existing gate system, concludes there were no adverse effects on traveler line queues or inconvenience in making

flights. Only foreign travelers are processed, which, depending on the airport and specific flight, is a variable fraction of total travelers.

*Processing of foreign passengers departing the U.S.*

Rather than use airline employees to process foreign travelers on exit, there are two options. One option, as provided in S. 744, is the use of Customs and Border Protection (CBP) personnel to staff the exit processing, as they do on entry, the cost of which would be covered by the government.

An alternative option is to use fully automated systems similar to e- Gate systems in use at airports in Europe, Asia, and Australia. This would significantly reduce the number of personnel required as one (1) border control agent can monitor multiple automated gates. Figure 1 shows an example of an automated e- Gate installation, such as might be used at the entrance to an international terminal (after the security checkpoint) or to a group of airport jetway gates.

**Cost Estimates of a Biometric Exit**

As representatives of the identification technology industry, we are confident about providing costs of the biometric component technologies that could be used in a biometric exit system.

However, that is not the case with overall system costs. Without an understanding of the system requirements and specific implementation objectives (e.g., which air, maritime, and land ports are involved), it would be irresponsible to attempt to estimate an overall cost.

The industry believes, however, a very robust, viable biometric system can be developed at significantly less than half of the estimated $3.5 B proposed in the 2008 DHS study referenced earlier. **(This estimate is for 73 airports and seven seaports and not the 10 airports in the Senate bill.)** Although the analysis prepared in 2008 was based on the best available knowledge at the time, the report itself is quick to point out that it is only a Rough Order of Magnitude (ROM) estimate based on "lack of data concerning several variables in this analysis," as a result of which the estimated costs are significantly overstated.

Most significantly, the 2008 study designated their cost estimate as a "Class 5" cost estimate as defined by the Association for the Advancement of Cost Engineering International (AACEI). Class 5 estimates are done where the requirements are not at all well understood. As such, some companies and organizations have elected to determine that due to the inherent inaccuracies, such estimates cannot be classified in a conventional and systemic manner." Accuracy ranges for Class 5 estimates are 20% to 50% on the low side, and 30% to 100% on the high side. **Consequently, a very high risk multiplier was applied to the 2008 analysis because the requirements for biometric exit and the effort it would take to build an effective system were not well understood at the time. We understand a lot more today and what once would have been a custom development (as estimated) can now predominately be performed by lower cost commercially available off- the- shelf (COTS) biometric solutions.**

Since 2008, US VISIT has matured and is better understood by the industry; interoperability between airline systems and DHS and CBP systems are better defined; and the biometrics industry has developed commercially available off the shelf tools and software which largely take the place of custom development which was estimated in the 2008 study. Consequently, our lower estimate is based on a more thorough understanding of the likely requirements surrounding a biometric exit strategy in the U.S. and is based readily available commercial biometric technology.

There are many other factors associated with the 2008 that are worthy of update that would reduce the risk and associated costs.

In addition, there are other considerations to point out, pending the identification of the specific implementation objectives or requirements:

The biometric cost component of the exit system is likely to be small relative to other costs like on- going staffing. Our industry makes many components as commercial- off- the- shelf (COTS), and prices have declined markedly over the last five years, while features and variety of offerings have increased.

1 There is a cost trade- off, depending on the operational concept, between increased staffing with low- cost mobile exit verification devices, vs. lower staffing with higher-priced fixed and automated electronic exit gates, called "e- Gates" or "ABC gates" (Automated Border Control gates).

2 Depending on the airport gate structure for international operations, adding US- VISIT Exit infrastructure may actually lessen the load on airline personnel, if automated boarding pass processing is part of the function in an e- Gate implementation. Depending on the airport gate structure for international operations, adding US- VISIT Exit infrastructure may actually lessen the load on airline personnel, if automated boarding pass processing is part of the function in an e- Gate implementation. We understand that not imposing additional work on airline personnel is a key issue for that industry's acceptance of an Exit function.

3 Under any operational concept, biometrics are the low cost solution because the US-Visit biometric infrastructure is already in place. The exit system is essentially adding input devices into the existing system for symmetrical operation (biometrics- in, biometrics- out). This is not the case for the proposed enhanced biographic system with secret personal questions. Not only is such a system less secure and subject to spoofing, but there is no infrastructure in place, nor are there any published estimates on the cost of such a system.

4 There are different business models the industry can offer to help facilitate the establishment of an Exit capability. There is the obvious traditional technique of initial capital outlay with annual maintenance contracts. Increasingly, however, options are being offered for level service agreements, wherein the initial capital costs are amortized over a period, and a periodic service fee is charged to cover provision and maintenance of the equipment. Think of this as "US- VISIT Exit as- a- Service."

5 **Reader costs**

6 In determining the cost of readers necessary to fulfill a robust biometric exit requirement, we believe that the results of the 2008 US- VISIT "Air/Sea Biometric Exit Project Regulatory Impact Analysis" are useful as a starting point, if updated with the latest data from our industry. That analysis provided costs for 1,010 gates at the 73 airports and seven sea gates where CBP currently has personnel. It also assumed a total of 1,342 devices to cover multiple readers where throughput needs extra support due to high volume or potential reader malfunction. Of course we know that a likely implementation in 2015 would have different requirements and assumptions, and certainly very different component costs.

7 The reader costs provided below include software (but not system design and operations and maintenance). Each of the readers, at a minimum, would need to be configured to swipe two fingers and also be equipped with an MRZ (Machine Readable Zone) reader to scan travel documents (e.g. passports and boarding passes). We start with the simplest technology first (albeit requiring more attendant labor), and end with the most automated technology last (requiring the least attendant labor).

**FOR ORDER OF MAGNITUDE COMPARISONS ONLY,** we are showing the math for the total of 1,342 referenced in the 2008 study:

1. Portable fingerprint readers, with passport readers, on a cart that can be moved from lane to lane depending on which lane is assigned for foreign travelers and passenger

2. throughput. Current costs range from $3,000 to $5,000. **One- time maximum cost ($5,000/per reader x 1,342 readers) = $6,710,000. Requires one attendant per reader during use.**

3. Hand held fingerprint readers, with passport readers, that can be used at lanes to facilitate passenger throughput. Current costs fall in the $5,000 to $7,000. **One- time maximum cost ($7,000/per reader x 1,342 readers) = $9,394,000. Requires one attendant per reader during use.**

4. Contactless fingerprint mobile readers (with passport readers) with costs in the range of $8,000 to $10,000. **One- time maximum cost ($10,000/per reader x 1,342 readers) = $13,420,00. Requires one attendant per reader during use.**

5. Automated e- Gates, to include passport readers and fingerprint readers. **Face and iris readers and boarding pass readers are options on some models. Prices range from $50,000 per unit to $150,000 per unit, depending on features and configuration ordered. One- time maximum cost ($150,000/eGate x 1342 gates) = $201,300,000. This option requires far less labor, since one attendant can monitor multiple e- Gates.**

Possible future options include face and iris biometrics, which DHS S&T, in cooperation with US- VISIT, has trialed for uses at border crossings. Prices for such features range from less than $1500 per unit, up to about $35,000 per unit for the most sophisticated stand- off iris readers.

It should be noted that prices for iris readers are declining rapidly, particularly since the country of India has recently embraced iris as a primary biometric for their nationwide UIDAI Aadhaar identification project.

**Conclusion**

Based on the successful and expanding use of biometric entry/exit systems worldwide and their acceptance by the public, along with the highly successful operation of US- VISIT biometric entry for more than a decade, which provides a solid infrastructure and foundation for a biometric exit, the identification technology industry is confident that a biometric exit can be effectively implemented.

While properly subject to requirements definition and operational concept determination, we believe that cost effective biometric exit can be implemented now at U.S. international airports. Indications are that this could be done at a fraction of the dated DHS estimate. Designed and implemented properly, with good project management, such implementations not only support US- VISIT Biometric Exit Page 8 of 8

existing passenger throughput, but could actually enhance boarding operations of the airlines themselves, while minimizing impacts on Government personnel. We very much appreciate the opportunity to share this information with you, and look forward to working with you to resolve this critical statutory mandate.

We hope this information is useful and would be pleased to review this with you and any questions and requests for further information.

We greatly appreciate the opportunity to provide this data to you and look forward to working with you to implement this important national security program.

Sincerely,

Tovah LaDier

IBIA Managing Director


113 South Columbus Street, Suite 400 Alexandria, VA 22314

Tel: (703) 797-2600

Fax: (703) 706-9549

June 5, 2013

The Honorable Jeff Sessions

326 Russell Senate Office Building Washington, D.C. 20510

The Honorable Dianne Feinstein 331 Hart Senate Office Building Washington, D.C. 20510

The Honorable John Cornyn 517 Hart Senate Office Building Washington, DC 20510

The Honorable Mike Lee

316 Hart Senate Office Building Washington, DC 20510

Re: Biometric Air Exit Solution

Dear Senators Sessions, Feinstein, Cornyn, and Lee:

On behalf of MorphoTrak, I want to thank you for your leadership and public support for biometrics in an immigration setting. Biometrics is and always will be the best means to assure identity. Right now, we are able to deploy an effective and viable biometric air exit system using proven technologies without inconveniencing foreign nationals departing on international flights. We appreciate the opportunity to provide this information as requested.

**Who is MorphoTrak**

MorphoTrak is a world leader in multi-biometric technologies and an acknowledged expert in identification systems. Our solutions meet a wide range of security needs for people, companies

and governments worldwide. We are a U.S. company with about 500 employees dedicated to biometric product innovation, project implementation, and customer support.

Our headquarters are in Alexandria, VA, with large facilities in Anaheim, CA and Federal Way, WA.

MorphoTrak provides the FBI with fingerprint matching solutions including those used in the new Next Generation Identification (NGI) System. MorphoTrak has also deployed and currently supports Automated Fingerprint Identification System (AFIS) solutions for law enforcement in 28 states and over 30 cities and counties, including the New York (City) Police Department, New York State, Florida Department of Law Enforcement, Harris County and the City of El Paso Texas, Arizona Department of Public Safety, Orange County California Sheriff's Department, Colorado Bureau of Investigation, Missouri State Highway Patrol, New Jersey State Police, North Carolina State Bureau of Investigation, South Carolina Law Enforcement Division, State of Wisconsin Department of Justice, and a large array of interoperable AFIS systems across the U.S. National Capital Region and surrounding jurisdictions.

**Biometrics Used for Immigration**

Biometrics serve as the basis for OBIM (formerly known as US-VISIT), which today is used to take a digital photo and 10 fingerprints for all foreign nationals that enter at US ports of entry. There are currently over 150 million visitors in OBIM that are queried an average of 30,000 times a day by the Department of Homeland Security, Department of Defense and state, local and federal law enforcement and intelligence agencies to verify identities and identify potential criminals and terrorists.

The results of the "2009 US-VISIT Air Exit Pilots Evaluation Report" that Senator Sessions made public during the Senate Judiciary Committee markup of S. 744, "Border Security, Economic Opportunity, and Immigration Modernization Act", clarify that an air biometric exit mandate could have been fulfilled in 2009 without operational or compliance issues that plagued the earlier January 2004 to May 2007 pilot. Biometrics can provide the level of security needed to have a cost-effective and comprehensive system for both entry and exit.

**Feasibility of Implementing Biometric Air Exit**

MorphoTrak is part of a global corporation which deployed large-scale biometric intake and matching systems for immigration purposes including Automated Border Control Solutions (ABCS) installed recently in 9 countries at 20 international airports. These systems include the Australia and New Zealand SmartGates, the French Parafe, UK IRIS, and UAE Abu Dhabi systems processing in excess of 700,000 passengers per month. MorphoTrak is currently the only biometric provider capable of fielding a contactless fingerprint capture technology (also known as "finger-on-the-fly") ideally suited for high-throughput immigration and border control applications.


WHAT: The purpose of utilizing biometrics as the foundation of a comprehensive exit program is to accurately match non-U.S. citizen departure data with previously collected arrival information. The exit solution requires the collection of a biometric (i.e. fingerprints), along with biographic data, from foreign nationals in order to enable biometric matching and identity verification at departure gates and/or TSA security checkpoints.

HOW: Non-U.S. citizen visitors with an international destination are directed to areas near the departure gate or at the TSA checkpoint for biometric information collection. Using a mobile or portable (cart-based) collection device (such as finger-on-the-fly), the officers collect one or more fingerprints electronically. The fingerprints can be matched locally on the collection device or remotely. A biometric match returns the associated biographic information that is then compared with the biographic data in the Machine Readable Zone (MRZ) of a passport, such as name, country, passport number and date of birth. In the attached estimates, we assume 23 airports for our calculations which comprise 40% of the international travel from the U.S.

PRIVACY: All data remains encrypted during the entire transmission process. High level security protocols and procedures are used to protect all devices and data used by CBP, TSA or other officials.

**SmartGate Sydney, Australia Facial Recognition Border Control**

MorphoTrak suggests the use of contactless, "on-the-fly" biometric capture that enables agents to be reassigned to tasks that require manual intervention. The contactless fingerprint technology does not require a passenger to stop walking to place their hands on a device or be touched by an agent. This maximizes passenger processing, eliminates hygiene concerns and can alleviate cultural or religious objections.

**MorphoTrak's Finger-On-The-Fly**

By using contactless fingerprint and/or advanced biometric handheld technologies, the exit process can be expedited, resulting in less than 2 seconds for fingerprint capture for each passenger. All of these technologies are available today.

MorphoTrak has included an attachment identifying costs for multiple options to enable a biometric exit system. These estimates include options for (1) mobile devices, (2) biometric kiosks with contactless fingerprint capture, (3) exception handling, (4) 1:1 and 1:few biometric searching for those foreign nationals who do not have biometric passports, (5) mirror copy of the US VISIT (OBIM) database, and (6) migration of the US VISIT databases.

MorphoTrak believes that the biometric portion of an exit program could fall within the range of $90,000,000 to $150,000,000 using a combination of the options mentioned above.

MorphoTrak greatly appreciates your support and would be pleased to provide any additional information you require.

Sincerely, Clark Nelson

Senior Vice President MorphoTrak, Inc.
CORPORATE HEADQUARTERS
113 South Columbus Street, Suite 400 Alexandria, VA 22314

Tel: (703) 797-2600 Fax: (703) 706-9549 www.morphotrak.com

## Implementing Biometric Exit at Land Borders

The feasibility and cost of a biometric land port of entry exit solution depends on the type of departure, existing infrastructure capabilities, and ability of the biometric exit to fulfill statutory mandates that enhance the integrity of our border system while continuing to support trade and tourism. Despite the challenges, a biometric exit is feasible in a phased-in approach. Biometric exit controls for foreign national pedestrians and trusted travelers could be implemented relatively quickly, while non-trusted traveler vehicular traffic would take longer.

An obscure 2005 joint US-VISIT and Smart Border Alliance study of land exit using RFID-embedded secure credentials proved that even at that time, an ID could be read at 50 mph under good circumstances. Eight years later the technology is better and more accurate. The concept is similar to EZ-PASS in place on highways and the trusted traveler systems today that operate today at the 39 busiest land ports that represent 95 percent of total northern and southern border traffic. It is these ports that should be prioritized for biometric exit deployment.

To be clear, any movement on a biometric exit deployment on our northern border should be in counsel and cooperation with Canada, building on the good work in implementing a biographic entry/exit data exchange at northern land ports of entry, to the extent possible.

Key elements for a successful land biometric exit implementation include:

- **Use of proven technologies for quick, well-executed deployment.** Incorporating proven technology, including useful elements of five different trusted traveler programs, for a quicker, well-executed and trusted deployment.

- **Applicability.** Departure requirements would not apply to U.S. citizens. The departure requirement would apply to all foreign nationals, including (1) foreign visitors seeking visas at consular offices overseas; (2) legal immigrants but for those exempted by law; (3) any foreign nationals granted temporary legal status, including those enrolled in any amnesty program.

- **Secure Credentialing.** For those visiting and departing by air or sea, the secure credential required would be a passport or equivalent secure identification with embedded Radio Frequency Identification (RFID) that links to biometric information secured by immigration authorities. Trusted traveler enrollees' travel documents are already embedded with RFID technology and thus have the credentials already to support a biometric land exit. All other qualifying foreign nationals would register for similar credentials either in the visa, immigration benefit, or other qualified immigration setting.

For temporary visitors without a secure credential, major ports would equip inspectors with handheld or other qualified devices to gather biometrics. Technologies exist today to take a contactless fingerprint, for example, in two seconds. Iris scans are quick and reliable, and may

also be an option. However, it is recommended that this be the last phase-in of a biometric land solution when as many individuals as possible are already enrolled.

- **'Biometric' defined.** At land ports, the 'biometric' requirement for pedestrians would be modeled on the air/sea solutions. For vehicular traffic, the model would be the trusted traveler programs that employ RFID-enabled biometric verification that protects the privacy of the data by not storing private information on the travel documents, but instead linking the biometric to government-stored data. This way, CBP could still check the stored biometric (likely facial recognition) with the individual, if necessary.

- **'Exit' data captured.** The system would link the reading of the RFID at a land port of entry to the Arrival/Departure Information System.

- **Funding.** Four potential mechanisms, in combination or alone, are available to pay for a land border biometric exit without requiring significant direct appropriations. These include: (1) fees for the improved travel documents, based on the five trusted traveler program models that exist today; (2) increase in ESTA fees; (3) increase in visa fees; (4) local monies, both private and public to fill in the infrastructure gaps. These gaps include adding the RFID technology already employed in entry lanes at the 39 busiest land ports to the exit lanes in a phased-in approach.

Why Land Borders

Biometrics at land borders have been dogged with policy issues regarding feasibility, trumping the basic fact that most border traffic is across land, not air/sea. In addition, if the Senate immigration reform bill (S. 744) amnesty is passed, border crossing numbers are likely to rise. Even without new immigration legislation, no exit system can be complete without inclusion of land borders. Most important, three laws specifically require biometric exit to have been implemented years ago.

In regard to *why* biometric at land borders, please see prior policy discussions in the air/sea exit portion of this testimony. The value of biometrics in borders does not change per the locale it is obtained; assuring that a person's identity is accurately recorded for departure is equally important whether departing by sea, air or land. However, because of the variety of departures at land borders, it is worthwhile to include more specificity of the unique attributes of pedestrian and vehicular crossings on the border.

- **Pedestrian crossers.** If S. 744 were passed by this body, it provides for the provisional legal status of agricultural (blue card) and low skilled workers in a new W program (eliminating H2-A). The new program caps low skilled workers at 200,000 but is unlimited for spouses and children of W applicants, which will likely at least double the numbers of those entering through land ports under the new S. 744 W program. The W agricultural workers are capped at 112,333. However, the Secretary of Agriculture may adjust the cap higher without limitation. Past estimates for agricultural workers is that 90 percent of these individuals use the land ports

for entry/exit. The same is the case with the H2-B (low skill) program, whose current cap is 66,000.

A biometric exit is absolutely essential when the numbers are this high, and have unlimited growth potential, to quickly and with assurance know who is crossing the border, and whether these individuals are abiding by the terms of their visas.

- **Vehicular traffic.** There are five trusted traveler systems currently in place that deal with vehicular traffic in a manner that is fast, accurate, easy to deploy and cost-effective. mimicking these programs for exit control could solve a significant portion of the current land border conundrum.

***The idea is relatively simple:***

- Turn the 'biometric' requirement of the eight varying 'exit' statutes from requiring a cadre of inspectors using handheld devices at brand new border gates for exit, to one housed in travel documents carried by legal immigrants (travel card) and foreign visitors (visa), eliminating many of the infrastructure issues that has crippled the discussion of a solution for years.

- Use the 'biometric' element already used for U.S. citizens in trusted traveler systems, and apply those same biometric standards to travel documents for foreign visitors and legal immigrants.

- Use the RFID technology already used for trusted traveler systems at 39 land ports of entry.

- A biometric exit-tracking system for foreign nationals departing by *pedestrians* at land ports of entry is likely feasible immediately at a reasonable cost, mimicking processing at air/sea ports of entry using interior locations at ports of entry.

- A biometric exit is feasible in the near future for *individuals and truckers already enrolled in trusted traveler systems* with little port infrastructure change and little cost. A straightforward solution duplicates the trusted traveler RFID technology used at entry lanes to exit lanes. No new IDs would require to be issued to these individuals.

- The backbone of the solution for *vehicular traffic* would be trusted traveler RFID technology that exists at entry replicated in exit lanes, and "smart cards" that mimic the technologies, security and privacy features of trusted traveler documents.

- RFID and corresponding ID card technologies are proven, cost-effective and significantly better and relatively inexpensive.

- Inclusion biometric element to the land border exit solution was proven in a January 2005 "US-VISIT Increment 2C RFID Feasibility Study Final Report" which found that using RFID technology such as that already successfully used for DHS vehicular trusted traveler programs SENTRI (southern border), NEXUS (northern border) and FAST (shippers on

both borders) could be used for exit solutions at moderate rates of speed, and different types of IDs did not disrupt collection of information.

• The difference with a biometric exit solution and today's trusted traveler systems is that the verified departure data would be recorded and then relayed to Arrival/Departure and Advanced Passenger Information Systems.

• Using trusted traveler systems as a base model for biometric exit, the essential trade, facilitation and departure collection goals of border controls can be met, including incorporating in the good work of DHS and Canada in their shared entry/exit information system and other cooperative border agreements that are maturing today rapidly and well.

• For all foreign nationals seeking entry into the United States not currently enrolled in trusted traveler programs, the U.S. should consider expanding the RFID / secure identity electronic framework into issuance of visas, border crossing cards, and other travel documents accepted to use for entry/exit across U.S. borders.

• According to the Smart Card Alliance, chips holding biometrics and RFID capable cost only a few dollars a piece.

• Cost for travel documents enhanced with biometrics and RFID capable could be folded into visa and other program fees.

Satisfying Statutory Requirements

Current law requires a biometric exit established at land ports of entry. Practicality requires, to the extent possible, that the statutory requirements be cost-effective and budget-neutral; provide accurate data; and support trade and tourism.

**'Biometric' legal requirement satisfied.** The digital photo and fingerprints already taken for the purposes of obtaining a visa or, in some cases, acquiring an immigration benefit, could be the same biometric required for the travel document, pointing back to either (1) for foreign visitors who received a visa, to the State Department's consular database; or (2) for legal immigrants, to the USCIS database. The hardware and software should be multi-modal, meaning that while photo and fingerprints are standard, iris scans, now used by the State Department and our military, for example, may be incorporated into functionality if need be in the future.

The applicant identity information would not be stored on the travel document itself, but would only be available to verify the cardholder's identity as having exited the country. The 'biometric' requirement of the law would be satisfied.

**'Exit' legal requirement satisfied.** The identity information of the foreign national, once verified against biographic information automatically associated with that identity, would in real time be recorded in the Arrival Departure Information System (ADIS). The 'exit' requirement of the law would be satisfied.

**Use of land port existing technologies.** For vehicular traffic where the occupants have been issued secure travel authorization documents, the program would work very much like the trusted traveler systems on the land border work today:

- When a vehicle approaches the border, all occupants present their secure travel authorization document.
- The RFID cards contain a file number that is read upon arrival.
- The file number triggers the participant's data that is available to be brought up on the CBP Officer's screen.
- If there is reason for concern, the data is verified by the CBP Officer and the traveler is released or referred for additional inspections if proper documentation is unavailable.

**Use of proven travel document technologies.** The proposal uses as its core the proven trusted traveler programs that currently use relevant background check vetting, CBP access to data, and RFID technologies embedded in travel documents. This proposal piggybacks on the five trusted traveler programs now offered for land port entry.

The descriptions below are examples only, and those for US citizens below, would not be necessary or available for foreign nationals.

***-For U.S. citizens pursuant to the Western Hemisphere Travel Initiative.*** Alternatives to a passport for U.S. citizens include PASS Cards issued by the State Department and Enhanced Driver Licenses (EDLs) issued by certain northern states. Both began availability in 2009, with states like Minnesota only issuing EDLs in the past few months.

- *PASS Cards:* The PASS Card is a limited use passport in a "wallet size" format used for land and sea port entry, and only available to U.S. citizens. This ID establishes both the identity and nationality of the bearer. This ID satisfies the 9/11 Commission recommendation that became the Western Hemisphere Travel Initiative, requiring all those seeking entry into the U.S. to present a passport or equivalent. It is used by business travelers and other individuals who live in border communities as well as those that travel frequently (by land or sea) between the Unted States and Canada / Mexico.
- *Enhanced Driver Licenses:* State-issued enhanced drivers licenses (EDLs) provide proof of identity and U.S. citizenship, are issued in a secure process, and include technology that makes travel easier. They provide travelers with a low-cost, convenient alternative for entering the United States from Canada, Mexico or the Caribbean through a land or sea port of entry, in addition to serving as a permit to drive. Michigan, Minnesota, New York, Vermont and Washington are issuing enhanced drivers licenses.

***-For U.S. citizens and qualifying foreign nationals:***

Those foreign nationals enrolled in the following trusted traveler programs would be the easiest to apply a biometric exit requirement.

- *FAST:* Available to U.S., Canadian, and Mexican low risk truck drivers whose personal record and driving record are subject to numerous criminal, immigration and driving background checks, enabling use of dedicated driving lanes and faster inspection. Available at 17 northern and 17 southern ports of entry.

- *Nexus:* Available to U.S. and Canadian low risk travelers, NEXUS members now have crossing privileges at air, land, and marine ports of entry. Under the Western Hemisphere Travel Initiative, the NEXUS card has been approved as an alternative to the passport for air, land, and sea travel into the United States for US and Canadian citizens. The program allows pre-screened travelers expedited processing by United States and Canadian officials at dedicated processing lanes at designated northern border ports of entry, at NEXUS kiosks at Canadian Preclearance airports, and at marine reporting locations. Approved applicants are issued a photo-identification, proximity Radio Frequency Identification (RFID) card.

- *Sentri:* Available only on the southern border, SENTRI provides expedited CBP processing for pre-approved, low-risk travelers. Applicants must voluntarily undergo a thorough biographical background check against criminal, law enforcement, customs, immigration, and terrorist indices; a 10-fingerprint law enforcement check; and a personal interview with a CBP Officer.

**Qualifying travel documents.** All of the applicant data is stored in the secure USCIS database, or for the case of nonimmigrant visa holders, the State Department. No private biometric information is stored on the travel document, and thus no private information is transmitted with the RFID (RFID technology has the potential to track an individual's movements, create a profile of an individual's habits, and allow for secondary uses of that information). All applicants would already have undergone background checks pursuant to receiving the relevant immigration benefit. This solution is that used in trusted traveler systems, and has worked to protect private information.

- ***Enhanced visa page for foreign visitors:*** The current visa issued by the State Department and used for presentation for entry at U.S. ports of entry by foreign nationals in their passports would receive the enhanced travel document described above.

- ***Enhanced travel authorization ID card:*** Current and future eligible legal immigrants would receive the enhanced travel document described above.

**Exit data and overstay data produced real time at land ports.** The proposal would generate real time, immediate exit data at land ports, minimizing overstay data manually produced by ICE today by generating an exit record in the Arrival/Departure Information System for every exit instance. The same could be done for land port entries, building on the biographic data being gathered today on the northern border in cooperation with Canada. Current legal mandates for a biometric exit would be satisfied. Overstay data used for the Visa Waiver program and immigration enforcement generated with significantly less manual labor. National security would be better served, knowing whether a wanted terrorist or felon is in or out of the country would no longer be a guessing game, and enabling law enforcement to make better decisions about whether to rendition a wanted individual.

**Privacy and security of data.** The foreign national's data is kept private because it is not stored on the card, but in USCIS or State Department secure database. Instead, the card includes a file number which points to a file number in a secure DHS (immigrant) or State (nonimmigrant) database that is read upon arrival. This number does not contain any personally identifiable information.

The file number triggers the participant's data to be brought up on the CBP Officer's screen. The data is verified by the CBP Officer and the traveler is released or referred for additional inspections. This is exactly how current land border trusted traveler systems work. These cards are provided a shielded sleeve that prevents anyone from reading the document.

**Minimizing cost.**

- The proposal requires a phased-in RFID add-on dedicated exit lane by dedicated exit lane approach. The only new infrastructure likely required is duplicating RFID into exit lanes and technology to record corresponding data.
- Phasing in RFID technology at the ports would mirror (with planning), the phased-in approach of embedding the improved travel documents with the RFID technology in order to avoid any potential negative repercussions for trade and tourism.
- The travel document and biometric R&D is already established, and would be incorporated into the improved travel documents. Any new costs in embedding RFID technologies or biometrics could be covered by fees. Business models already exist for the travel documents mentioned above, and could be replicated in part by this program.
- The new element-- linking the Arrival / Departure Information System to the improved secure credentials-- would be minimal relative to the cost barriers of deploying fingerprint readers or other handheld technologies at the ports for all those exiting; instead, handheld devices would be the exception, not the norm.

**Differentiating between US citizens, legal immigrants and visitors.** To be clear, the proposed entry / exit system would not apply to U.S. citizens, only foreign nationals. In delineating between foreign nationals and US citizens, it would be efficient and useful to build upon the culling process already created by the US and Canada for their shared entry/exit biographic exit deployment.

**Phase-in of program.** In the first years of the program, until all visas were expired and included the enhancements necessary for recording exit data, and all aliens received similar enhancements to their ID cards, the exit data would be necessarily incomplete. As travel documents expire and are renewed, these would contain the RFID-enabled / machine readable technology. The gathering of exit data would be robust.

**Canada.** DHS is working with Canada currently on a mutual entry/exit system at land ports (discussed above) as well as enhanced drivers licenses as an alternative to the Canadian passport. Four Canadian provinces (British Columbia, Manitoba, Ontario, and Quebec) are issuing EDLs to Canadian citizens. Canadian citizens can present an EDL when entering the

United States from Canada, Mexico, or the Caribbean through a land or sea port of entry. It would be worth engaging the Canadians on incorporating EDL linkages to the Arrival/ Departure Information System, ADIS.

## BIOMETRIC SOLUTIONS AT AIR, LAND AND SEA PORTS IN THE UNITED ARAB EMIRATES

***provided by California-based AOptix (iris recognition)***

**BIOMETRIC ENTRY, DUBAI UAE**

**BIOMETRIC IRIS-FACE Recognition, Dubai International Terminal 3**

Over 100 lanes of either immigration stations or automated border control gates (even suitable for use by disabled passengers in wheelchairs) have been in place in DXB's largest terminal since early 2013. The airport is slated to see major increases in traffic and envisions iris recognition as the principal means of authenticating visitors to and transit passengers in the Emirates in one of the fastest growing transport hubs in the world. Since the implementation of 100 gates in terminal 3 earlier this year, additional systems have been ordered for deployment in terminals 1 and 2 as well as in the new Maktoum Airport just outside Dubai en route to Abu Dhabi.

**BIOMETRIC TRAVEL CONTROL, IRIS RECOGNITION**

**Gatwick Airport, London UK**

Over 25 lanes of AOptix InSight Iris Recognition are deployed at Gatwick in what is called a "mixed use departure area"-- where international and domestic-destined passengers utilize the same retail and restaurant amenities. Passenger mixing that without proper safeguards, might yield boarding pass swapping and an "Immigration Bypass" has been negated by use of an iris system that requires iris template-barcode linkage on boarding passes for domestically-enrolled passengers (no iris enrollment on the sterile side of the border) Operation of the technology is simple: instruction for self-enrollment is delivered via exposure to 2 exposures to picture-only LCD's on the domestic side. The process is simple enough that even a child can do it.

Courtesy AOptix Technologies

**QATAR BIOMETRIC ENTRY/EXIT, ALL POINTS ENTRY LAND, AIR, & SEA**

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In an installation that dates to 2011, every point of entry into the State of Qatar relies on an AOptix Technologies InSight™ system for a black-list determination- enabled Entry/Exit program at every point of entry (80+ lanes air, land, and sea) in the gas-rich state. Every person entering and leaving the state uses the system. Notice that unlike standard white livery seen at Dubai, Qatar actually asked for sheathing that matched the color scheme of the immigration booths. More importantly, processing time for individuals with 2-eye recognition is less than 5 seconds per person.

Courtesy: AOptix Technologies

Mr. GOODLATTE. Thank you, Ms. Kephart.
Mr. Albers, welcome.

**TESTIMONY OF JAMES N. ALBERS, SENIOR VICE PRESIDENT OF GOVERNMENT OPERATIONS, MORPHOTRUST USA**

Mr. ALBERS. Good morning, Mr. Chairman, Ranking Member Conyers, other distinguished Members of the Committee. Thank you for having me here today. I greatly appreciate it. As you heard, I work for MorphoTrust, which is one of the leaders in the biometrics industry. I have been working in the biometrics industry for 11 years, about as long as there has been a biometrics industry.

I am going to focus as a member of industry on the technology and the state of the technology that is out there right now, and I would basically like to make three points, some of which Janice already made very well. Biometrics will offer superior results when compared to biographic only. Costs for implementation, integration, operation and maintenance are much lower than they were a few years ago. And this situation, this solution is well proven around the world. Multimodal biometrics is in play at a number of borders and airports throughout the world.

Biometric exit offers greater security than biographic only. Biographic data, such as a person's name, date of birth, are all vulnerable to fraud. This information and documentation can be falsified and stolen. Biographic information is also inconsistently presented around the world. We are all familiar with birth dates going day/month/year, backwards. Names can be presented the same way, and in our culture, first/last/middle. Biographic information, biographic data is fraught with errors because it depends on human collection, as opposed to biometric data, which is based on NIST and international standards and is collected using robust, highly reliable collection technology.

Biometric exit controls can provide a higher degree of identity assurance than biographic exit controls alone. Furthermore, this can be done in a cost-effective manner without disrupting operations at airports, seaports, and other ports of entry and exit.

As far as costs are concerned, I believe that the $3 billion-plus cost estimate in the 2008 report commissioned by DHS for implementing a biometric exit system at airports and seaports is out of date and an order of magnitude too high. Since 2008, biometrics has moved into the commercial arena, and the costs associated with biometric capture devices has dropped dramatically, while the convenience and accuracy of these devices continues to improve.

I recommend a multimodal biometric solution which has already been implemented throughout the Federal and some state governments. The Department of Defense uses multimodal biometrics—that is face recognition, fingerprint, iris recognition, and a fusion algorithm—as standard operating procedure. The FBI has used fingerprints for more than a century, and the next-generation identification program is now adding face recognition and iris recognition. The State Department runs the largest facial recognition database in the world. There are over 100 million images in there and the visa database, including many of those folks that we are talking about that overstayed their visas.

I believe that DHS should change the collection process and collect additional biometrics from visitors: fingerprints for sure, like we do now; high-quality face images that can be used with face recognition systems; and iris images compliant with NIST standards. Collecting multiple biometrics at the time of entry will provide CBP with more options upon exit. DHS agencies could then take advantage of the relative benefits of each biometric identifier and method of capture such as accuracy, passenger throughput, convenience and cost. Fingerprints would continue to be collected, allowing for a comparison to IDENT and to NGI, while face and iris images at the time of entry could be collected and used against the FBI, State Department, and DOD databases.

This solution is proven and low cost. Today, more than 70 international airports throughout the world have biometrically-enabled systems. My company alone has deployed over 150 eGate systems across eight countries within 24 international airports, processing over 1 million passengers per month. Other companies in the industry have done the same thing. These biometrically-enabled systems use a variety of biometrics—fingerprint, face recognition, and iris recognition—to verify the identity of the traveler quickly and efficiently, with a very high accuracy.

In conclusion, I would like to say that MorphoTrust speaks for the biometric industry when we say that a fully functioning biometric exit system is affordable, can be implemented today without disrupting legitimate trade and travel. We stand ready to work with Congress, the Department of Homeland Security and other stakeholders to develop a biometric exit program that can be deployed within a short period of time and at a reasonable cost, thus making Americans safer while improving the traveler experience.

Thank you for the opportunity to address the Committee today on these issues. I look forward to your questions.

[The prepared statement of Mr. Albers follows:]

**WRITTEN STATEMENT OF**
**JAMES N. ALBERS**
**SENIOR VICE PRESIDENT OF GOVERNMENT OPERATIONS**
**MORPHOTRUST USA**

**BEFORE THE**

**COMMITTEE ON THE JUDICIARY**
**UNITED STATES HOUSE OF REPRESENTATIVES**

# IMPLEMENTATION OF AN ENTRY-EXIT SYSTEM: STILL WAITING AFTER ALL THESE YEARS

**PRESENTED**
**NOVEMER 13, 2013**

**Written Statement of James N. Albers**
**Senior Vice President of Government Operations**
**MorphoTrust USA**
**Before the Committee on the Judiciary**
**United States House of Representatives**
**November 13, 2013**

Good afternoon Chairman Goodlatte, Ranking Member Conyers, and other distinguished members of the Committee. Thank you for inviting me to testify today.

My name is Jim Albers. I am the Senior Vice President of Government Operations at MorphoTrust USA. I have been working in the biometrics industry for 11 years. I am pleased to address the subject of this hearing. I believe we have waited too long to complete a biometric exit control system in the United States. Today, advanced biometric entry and exit control systems are being used in airports and border crossings around the world. These systems are affordable, convenient, and can accommodate high rates of traveler throughput.

Today I would like to address the following topics:

- MorphoTrust's role in large, complex biometrics and identity programs
- The affordability and convenience of biometric exit systems
- The security benefits of biometrics over biographic information
- The importance of collecting multi-modal biometrics at entry and exit
- Different types of biometric exit control systems
- Examples of successful exit systems around the globe

**MorphoTrust USA's History and Role in Identity Solutions**

MorphoTrust USA, formerly known as L-1 Identity Solutions, is headquartered in Billerica, Massachusetts. Our mission is to simplify, protect, and secure the lives of the American people. MorphoTrust provides end-to-end identity solutions in biometrics, background checks, and secure credentials. We have over 1400 employees at locations across the country.

MorphoTrust develops the technology for, and delivers some of the largest, most complex biometric systems in the world. Our Automated Biometric Identification System (ABIS) is used by the U.S. Department of Defense, the U.S. State Department, the Federal Bureau of Investigation (FBI), and a number of state and local law enforcement agencies to fight terrorism, prevent identity fraud, and provide criminal investigative leads. In addition, Morpho has successfully developed and deployed biometric entry/exit controls in airport environments around the world.

MorphoTrust is also the leading domestic provider of secure credentials. We produce driver licenses for 42 of 50 states, as well as the Passport Card and Border Crossing Card for the U.S. Department of State. Our parent company, Safran, is a global high-technology company with concentrations in aerospace, defense, and security. In the United States, Safran has 32 subsidiaries and joint ventures, with approximately 7000 employees in 22 states.

**Biometric Exit Controls are Affordable and Convenient**

Based on our history of delivering a range of biometric solutions, we feel confident to be here today delivering a simple message—biometric technologies are fast, convenient, and accurate and can provide increased security without slowing or inconveniencing travelers.

When properly implemented, biometric exit controls can provide a higher degree of identity assurance than biographic exit controls alone. Furthermore, we are sure that this can be done without disrupting operations at airports, seaports, or other ports of entry and at a reasonable cost compared to the benefits.

All of this is, we know, in stark contrast to what many of you hear on a regular basis—that biometric exit controls are both costly and difficult to implement. However, we do not believe this to be the case. In reality, the costs associated with biometric capture devices have been trending dramatically downward, while convenience and accuracy of these capture devices continue to improve.

In studying the opposition to biometric exit controls, we know there is significant reliance on a 2008 report commissioned by the U.S. Department of Homeland Security (DHS) that estimates the costs for implementing a biometric exit system at airports and seaports to range from $3 billion to $6 billion.[1] We believe these cost estimates are out of date and orders of magnitude too high, and do not take into account the dramatic price declines in biometric technologies in recent years.

The study assumed building a system to specifications, without consideration of the range of Commercially Available Off-the-Shelf (COTS) biometric capture devices offered by vendors today that are affordable, highly accurate, and are designed specifically to fit within an airport footprint.

The first "livescan" fingerprint devices were put into use 20 years ago, were big and bulky, and cost $15,000 or more. Today, livescan devices are small and cheap enough to put on an iPhone, and law enforcement agencies buy high volume, "ten print" fingerprint devices for less than $1500.

[1] U.S. Dept. of Homeland Security, DHS-2008-0039-0002, *Air/Sea Biometric Exit Regulatory Impact Analysis* (2008).

AOptix Stratus™ mobile identity solution

Speaking of iPhones- everyone can see how the cost and size of cameras has also declined. My iPhone 5 has an 8 megapixel camera, and the new ones even have autofocus. Nokia now has a 41 megapixel camera. When the study was done in 2008 you could not buy a 41 megapixel camera at any price. This remarkable change has allowed cameras to be ubiquitous, and has facilitated law enforcement activities using face recognition.

Likewise, iris recognition was in its early days in 2008 and has now been recognized as the most efficient and effective biometric when matching one-to-many. A prime example of the scalability of biometric enrollment and verification is the UID program in India. 425 million Indian citizens are now enrolled in that National ID program, with a goal of enrolling 600 million citizens by 2014.

**Biometric Exit Offers Greater Security than Biographic-only Exit Controls**

It is important to recall that the existing legislative mandates to implement a biometric entry-exit control system are among the recommendations of the 9/11 Commission Report. Coincidently, those tragic events of 12 years ago were the catalyst for the growth of Federal biometrics programs.

Since that time, the U.S. Department of State has initiated and operated the largest face recognition program in the world. The U.S. Department of Defense uses multi-modal biometrics as standard operating procedure. While the FBI has been using fingerprints for a century, their Next Generation Identification (NGI) Program incorporates face recognition and iris recognition tools to also leverage the benefits of multiple biometrics modalities.

Our years of experience in this market have shown us that the use of biometrics is the single best way to quickly and accurately prove an identity. Biographic information, such as a person's name, social security number, and date of birth, and the documents used to verify biographic information are all vulnerable to fraud. All of this information and documentation can be falsified and stolen. Additionally, biographic data is fraught with errors because it is reliant, in most cases, on human collection.

Biographic data is also presented inconsistently around the world; birth dates can

be presented as day/month/year or as month/day/year and names can be presented as first/middle/last or the reverse. This is in addition to limitations associated with transposed or erroneous numbers or letters. Many names—especially those associated with foreign languages—allow multiple spellings or use of hyphens or other marks that can reduce the reliability of biographic systems.

Biometric identification and verification, on the other hand, is based on international standards and is generally not subject to the same vulnerabilities as biographic data. Faces, fingerprints, and irises are completely unique to individuals, and cannot easily be faked. In addition, each distinct biometric modality offers numerous unique identifying features, which, when used together, can dramatically increase identity assurance.

**Multi-modal Biometrics**

MorphoTrust is confident that a biometric entry-exit control system that incorporates multiple modes of biometrics is a more secure solution than the current biographic exit approach in place today.

Today, when a nonimmigrant arrives at a U.S. port of entry, and applies for admission to the United States by air or sea, the only biometrics that U.S. Customs and Border Protection (CBP) collects are fingerprints and photographs (but the photographs are often not suitable for use by face recognition technology). Because of this, many assume that an exit system should be based on a finger print matching system.

It is our view that DHS should change the entry process and collect additional biometrics from visitors—fingerprints for sure, but also photos of a quality that work with face recognition systems, and iris captures compliant with recently issued National Institute of Standards and Technology (NIST) standards.

Doing so would provide additional flexibility to CBP to employ a system that works most effectively in different airport environments. In some instances, this may include iris scans; in other instances, face recognition; and in still others, perhaps fingerprints.

Regardless, collecting multiple modalities of biometrics at the time of entry would provide CBP with more options for capturing biometrics at exit. CBP would have the ability to conduct contactless biometric capture using either face, fingerprint, or iris scans (or a combination thereof). This would allow operators to take advantage of the relative benefits of each biometric identifier and method of capture, such as accuracy, passenger throughput, convenience, and cost.

In this scenario, fingerprints would continue to be collected during enrollment, allowing for comparison against DHS's Automated Biometric Identification System (IDENT) database and the FBI's NGI database, which until recently was known as the Integrated Automated Fingerprint Identification System (IAFIS). This solution would continue to do that. However, the addition of iris and face recognition scans at the time of entry would provide the added security benefit of allowing matching against face recognition and iris databases maintained by the U.S. Department of

State and the U.S. Department of Defense, as well as other face databases maintained by state and local law enforcement agencies.

With multiple modalities (face, iris, and fingerprints) implemented, the primary modality used on a given day can be changed, mitigating the ability to plan for methods to spoof any single biometric. A multi-modal system ensures that each visitor would have at least one biometric identifier in the system that can be used to confirm identity. While each of the three biometric technologies has a relative margin of error, collectively they can ensure high probability matches on data sets with tens of millions of records and more, and can be used to reduce the impact of failed biometric capture (for instance, due to dry fingerprints).

Statistics from the Indonesian multi-modal national ID card project, for example, shows that there is only a 0.008% chance of false positive identification and a 0.18% chance of false negative identification on a database of over 100 million records.

In addition, multi-modal biometric entry/exit systems reduce processing times. For example, combination face recognition and document scanning systems can process a passenger in as little as 8 seconds. Iris scanning systems can capture and process an iris image in a few seconds. Contactless, finger-on-the-fly technology can read four fingerprints in as little as 3 seconds.

**Face Recognition**

Face recognition is not a new concept—police officers have been using face recognition for as long as there have been criminals. However, now the algorithms for face recognition have progressed to the point where software is much better at matching faces than the average humans is.

Illustrations of the areas used by a face recognition algorithm

Face recognition is a potential solution for biometric entry/exit as high quality video cameras are already installed at most major airports. These cameras, if mounted in the gates used for international departure, could capture the faces of departing visitors. Face recognition has the additional security benefit of allowing matching against the Department of State's biometric database of visa applicants.

**Iris Recognition**

One biometric in particular – iris – bears additional discussion, in our view. In 2008, iris was still a niche technology. Today iris enrollment and verification devices have become reasonably priced, as a number of iris camera manufacturers have driven down the costs per unit with high quality image results. Additionally, the recent addition of iris to the NIST Personal Identity Verification (PIV) specifications has added certainty to the technology and gives it room to grow.

Iris recognition starts with capture of a photograph of the iris using a near-infrared illumination. The iris is extracted from the photo and the unique features are identified and converted into a small template. It is this template that is stored and then compared to a template created from the photograph taken when a person is requesting verification of identity. An iris template cannot easily be reverse engineered to the original iris photo thereby protecting the privacy of the traveler's biometric information.

Iris recognition is unobtrusive. The individual does not need to be aware of the collection taking place for a successful collection to occur. High resolution cameras have improved to the point that photographs taken from up to 3 meters away from the subject will have the desired quality, with good focus that is required for iris recognition.

Area within orange concentric circles is extracted for template creation.

Iris recognition systems are contactless and hygienic. There is no need to touch a surface that has been touched by thousands of travelers. This prevents the transmission of disease via contact.

Iris recognition systems are stable. The iris is an internal organ that is protected against damage and wear by the cornea. On the other hand, fingerprints are subject to wear, distortion and alteration through certain types of activities and manual labor. The iris is mostly flat, and its geometric configuration is mainly dictated by pupil dilation. This makes the iris shape far more predictable and stable than an individual's face.

Results are returned quickly. Iris templates are very small, and as a result, database searches are very fast. Current server hardware can match an iris template to tens of millions of templates in less than a second. This means that iris can provide a "lights out match" in a one-to-many scenario faster than any other biometric.

Iris recognition is highly reliable, with the ability to reach extremely low false accept

rates, comparable to that of any other biometric modality. In addition, considering fingerprints are sometimes associated with criminal behavior, iris may be less offensive to some subset of travelers.

**Stand-off simultaneous face and dual iris capture**

Additional benefits may be derived by stand-off dual capture units, which simultaneously capture both face and iris images. This is accomplished by the use of two cameras:

1. A high resolution near-infrared camera that takes a photograph of the irises.
2. A digital camera that takes a high resolution color picture of the face.

Today's dual face and iris cameras are of sufficiently high resolution that a photograph taken, with the appropriate lens and lighting, from the distance shown in the photograph below, still has the resolution necessary to perform accurate matches. With faster computer systems and advances in computer vision algorithms, these systems will just keep getting better.

AOptix *Insight*® dual face and iris capture at check-in

Stand-off technologies allow for photographs to be taken unobtrusively, in seconds, and can be configured to fit into natural chokepoints at airports—such as check-in counters, security checkpoints, or at the departure gate.

Within seconds, a stand-off simultaneous face and dual iris biometric collection device can take photographs of your face and eyes and send the images to a back-end search engine. Depending on the complexity of the search workflows, results can return in seconds. At natural document handling points, search results could be returned before the document examination is completed.

**Contactless Fingerprint Capture Devices**

There are also exciting advances in fingerprint capture devices that provide new options for exit configurations. Morpho has developed a contactless fingerprint capture solution called Finger-on-the-Fly. Other companies have developed similar technologies.

Speaking to our device, it captures four finger images with a single movement of the hand in less than a second. Its fast acquisition capability allows subjects to provide fingerprints while on the move, which makes it suited for high-traffic environments. This method of fingerprint capture also alleviates hygienic concerns when using a commonly touched surface.

Morpho Finger-on-the-Fly contactless fingerprint reader

**Biometric Exit Systems Internationally**

With this in mind, it is also worth noting that biometric entry/exit control systems are operating successfully in airports around the world. In fact, when talking about exit in the United States, we are often asked what other nations are doing.

Morpho was the first company in the world to deploy an eGate project based on face recognition and ePassports in Australia. SmartGate has since been expanded to New Zealand, processing a combined 15.1 million passengers since 2007. Currently, Morpho has deployed over 150 eGate systems in 24 international airports across 8 countries within 24 international airports, processing over 1 million passengers per month.

MorphoWay™ fully automated eGates

Other major deployments include fingerprint based systems in France and Indonesia, iris recognition systems in the United Kingdom and the United Arab Emirates, and face recognition systems in Germany and the Czech Republic. Many of these systems are not limited to ePassport holders of the host country. Of the systems mentioned, holders of second generation U.S. ePassports are able to use the Australia and New Zealand's SmartGate and the French Parafe, and the systems in France, the United Kingdom, Germany and the Czech Republic are open to all second generation ePassport holders of the European Union.

MorphoWay™ eGates read biometric information contained in travel documents and compare it with the document holder's biometric data.

**Exit Controls for Land Border Ports of Entry**

I can confidently say that, based on successful implementation around the globe, and using COTS solutions, biometric exit controls for airports, seaports, and pedestrian land border crossings can be implemented affordably and within a relatively short time frame. Vehicular land border crossings present a unique challenge—in part due to the need for infrastructure improvements at exit points, as well as the difficulties in capturing biometrics of passengers inside the vehicle, without slowing down border traffic.

Multi-modal biometric capture systems, such as dual face/iris cameras, could be configured within a gantry to capture biometrics of drivers and passengers while seated in their vehicles. Additionally, handheld iris/face/fingerprint readers can quickly capture biometrics (similar to the HIIDE™ and SEEK® devices used by the U.S. military) for all vehicle occupants quickly—but, this would require facilitation by a trained CBP officer.

With emerging and improving biometric capture technologies, additional options will be available in the future.

We would recommend addressing biometric exit controls at land border crossings through a series of pilot and demonstration projects, in advance of implementation at busy border crossings.

**Conclusion**

I believe that MorphoTrust speaks for much of the biometric industry when we say that a fully functioning biometric exit system is affordable, and can be implemented today without disrupting legitimate trade and travel. Other countries have successfully deployed and are operating biometric entry and exit controls at airports and other ports of entry. The Federal Government has already embraced multi-modal biometrics as a means to establish and verify identity.

We stand ready to work with the Congress, the Department of Homeland Security, and other stakeholders to help develop a biometric exit program that can be deployed within a short period of time and at a reasonable cost, making Americans safer while improving the traveler experience.

Thank you for the opportunity to address the Subcommittee on these important issues. I look forward to answering your questions.

Mr. GOODLATTE. Thank you, Mr. Albers.
Ms. Wood, welcome.

**TESTIMONY OF JULIE MYERS WOOD, PRESIDENT, COMPLIANCE, FEDERAL PRACTICE AND SOFTWARE SOLUTIONS, GUIDEPOST SOLUTIONS**

Ms. WOOD. Thank you so much, Chairman Goodlatte, Ranking Member Conyers, Members of the Committee. I appreciate the opportunity to testify this morning about the enforcement implications of an entry-exit system.

Efforts to ensure that we secure the border and reform our immigration process must include efforts to transform overstay enforcement and do it more effectively, and exit is a big piece of this.

Although the lack of an adequate exit program was highlighted by the 9/11 Commission and mandated by Congress over many years, DHS struggled with how to effectively implement it, and really focused on biographic methods and refinement of data. Although this was very frustrating to law enforcement interests, both inside and outside of DHS, it was somewhat understandable given cost restraints, capacity, and the technological limitations of the time.

Now, however, biometrics are part of mainstream industry and security efforts. They are available on everything from your iPhone and utilized in locations as diverse as casinos and amusement parks. Biometrics should also be utilized to determine exits of foreign nationals from the United States.

While a biographic exit program is better than no program at all, the lack of biometrics leaves a significant gap for criminals and others to abuse. Instant verified biometric exit data would be extremely useful to law enforcement both for terrorism cases and for routine immigration enforcement. As the Chairman noted, significant national security risks often try to leave the country unnoticed. Biographic-centered systems do little to prevent these determined individuals from escaping the Joint Terrorism Task Force or other law enforcement efforts.

ICE's routine enforcement efforts also would be enhanced with an effective biometric exit program. Currently there are only 300 dedicated counter-terrorism compliance enforcement unit agents. They prioritize leads based on information provided from the law enforcement and intelligence community. But because we don't have an effective exit system, oftentimes these ICE agents are chasing leads for individuals who have already left the country when they could be spending time on higher-priority individuals who are still here.

I have to note, however, and despite the many benefits of exit, the overall value of a robust biometric system is greatly diminished if the enforcement agencies will not enforce violations that such a system identifies. To ensure that we have successful immigration reform, a commitment to build exit must also be accompanied by a commitment to enforce the law. ICE HSI currently spends only 1.8 percent of its enforcement hours on enforcement against overstays, and with improvements in the biographical data provided to law enforcement, ICE has been getting more and more

leads every year. Yet, the number of cases that ICE deems worthy of opening for investigation continues to go down.

In 2005, for example, 13,000 non-priority leads were sent to ICE, and the agency opened 4,600 for investigation. In 2012, over 212,000 non-priority leads were sent to ICE, but they opened only 2,800 investigations.

Other parts of ICE, including ERO, could have logical responsibility for overstay enforcement. But as they recently told the GAO, few records of potential overstays meet ERO's priorities—not HSI's priorities, not ERO's priorities. Overstays are no one's priorities, and when they are no one's priorities, they become everyone's problem because they undermine the integrity of our overall immigration system.

To put it somewhat in perspective, if you think about 20,000 border patrol agents, they are focused on only 60 percent of the problem. We have 300 ICE HSI agents to focus on the other 40 percent. Such a low level of enforcement suggests that even with biometric exit in place, the number of overstays may continue to grow unabated due to a lack of enforcement, resources and direction.

Enforcement, of course, always requires resources and appropriate prioritization, and any immigration reform bill must include appropriate resources to address these needs so that we have an immigration system that works, so that the benefit of a biometric exit does not surpass the immigration components that it needs most to do its job.

Thank you so much for the opportunity to testify before you about the enforcement implications, and I would be happy to answer any questions after the testimony is completed. Thank you.

[The prepared statement of Ms. Wood follows:]

**Testimony Before the**
**House Judiciary Committee**

# IMPLEMENTATION OF AN ENTRY-EXIT SYSTEM:
## Still Waiting After All These Years

**Testimony of**

**Julie Myers Wood**

President – Compliance, Federal Practice and Software Solutions,
Guidepost Solutions
Former Assistant Secretary/Director,
Immigration and Customs Enforcement (ICE)

**November 13, 2013**

Chairman Goodlatte, Ranking Member Conyers, Members of the Committee, I appreciate the opportunity to testify before you about the enforcement implications of an Entry/Exit system.

My name is Julie Myers Wood, and I am President of Guidepost Solutions, an investigative and compliance firm. In that position, I work with companies on their internal compliance programs, create web-based solutions to assist businesses with export and immigration compliance challenges, and consult with companies that work with the government. I am also a member of the American Bar Association's Commission on Immigration and as a Member of the Constitution Project's Committee on Immigration.

I am testifying today solely in my personal capacity and not as a representative of any group or organization.

Before joining the private sector, I served as the head of Immigration and Customs Enforcement (ICE) for nearly three years. I also served in a variety of other government positions, including Assistant Secretary for Export Enforcement at the Department of Commerce, Chief of Staff for the Criminal Division at the Department of Justice and Deputy Assistant Secretary (Enforcement – Money Laundering and Financial Crimes) at the Department of Treasury. In these roles, I saw first-hand the government's challenges in developing an overstay enforcement system that works, as well as the law enforcement need for accurate data on individuals who are in our country.

It is widely acknowledged that one of the most significant problems with current immigration enforcement is the inability of the government to address the problem of visa overstays. It is estimated that approximately 40% of individuals who are in the United States without authorization today initially entered the United States legally. When their visas expired, these "overstays" have blended into American society with little concern that they will be held accountable by any federal law enforcement. Indeed, a recent GAO reports notes as of June 2013, DHS has more than one million unmatched arrival records in ADIS (that is, arrival records for which ADIS does not have a record of departure or status change), which do not meet ICE's enforcement priorities.[1] Although ICE has limited resources and must prioritize, one million known - but ignored - records is not the sign of a working immigration system. Efforts to secure the border or reform

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1 "Overstay Enforcement: Additional Actions Needed To Assess DHS's Data and Improve Planning for a Biometric Exit Program," July 30, 2013, available at http://www.gao.gov/assets/660/656316.pdf (last viewed September 28, 2013).

our immigration process must include efforts to transform overstay enforcement. We need both a system that works and a commitment to enforcement of overstays.

A significant reason that these individuals who overstay their visas are able to blend into society is the fact that we do not have an adequate exit system ("Exit"), despite seventeen years and eight statutes requiring an Exit program. The lack of an adequate Exit program was highlighted by the 9/11 Commission:

> DHS, properly supported by the Congress, should complete, as quickly as possible, a biometric entry-exit screening system. As important as it is to know when foreign nationals arrive, it is also important to know when they leave. Full deployment of the biometric exit ... should be a high priority. Such a capability would have assisted law enforcement and intelligence officials in August and September 2001 in conducting a search for two of the 9/11 hijackers that were in the U.S. on expired visas.[2]

Knowing the urgency of these efforts, DHS has made substantial progress since 9/11 in developing and refining an entry program, and working to develop an exit program. During the time that I was at DHS, the Department was working to expand entry biometrics from two to ten fingerprints, and wrestling with integrating the U.S. VISIT (recently renamed the Office of Biometric Identity Management (OBIM)) generated data into the work of the enforcement agencies. As such, during this period, the Department's exit work focused on a biographic methods to record exits and ways to refine data analysis gathered through the biographic methods, such as passenger records. Although this was frustrating to law enforcement interests both inside and outside DHS, it was understandable given cost restraints, capacity, and technological limitations at the time.

[2] A total of 5 of the 9/11 hijackers had overstayed their visas.

Five years later, law enforcement remains frustrated with the focus on biographic solutions because of the loopholes in such a program. While a biographic Exit program is better than no program at all, the lack of biometrics leaves a significant gap for criminals and others to abuse. Indeed, ICE, CBP and other DHS agencies have long recognized that biographic data is not sufficient to meet its mission. Even senior DHS officials told GAO in April 2013 that DHS officials stated that the department had not reported overstay rates because it had not had sufficient confidence in the quality of its overstay data. DHS officials stated at the time that, as a result, the department could not reliably report overstay estimates in accordance with the statute.[3] The GAO went on to link the lack of confidence in overstay data to the current biographic data system, and lack of a biometric system to verify identities.[4]

The law enforcement and the intelligence community is well aware, and today rely heavily on, effective biometrics to verify identity immediately and provide real-time assurance that people are who they say they are, rather than just the people they are pretending to be. As CBP noted in its recent Exit report:

> Biographic data is a good start but is not enough to meet law enforcement, national security and other needs. Relying solely on Biographic matches based on data such as names and document numbers provide significant evidence that the traveler is genuine, but biometrics should offer a greater degree of assurance that the individual is who he or she claims to be, and whether the individual has actually departed the United States. With improved matching capabilities, the ability to match biometric entry and exit data would become more accurate and complete.[5]

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[3] "Overstay Enforcement: Additional Actions Needed To Assess DHS's Data and Improve Planning for a Biometric Exit Program," p. 14, July 30, 2013, available at http://www.gao.gov/assets/660/656316.pdf (last viewed September 28, 2013).

[4] "Immigration Enforcement: Preliminary Observations on DHS's Overstay Enforcement Efforts", May 2013.

[5] "Comprehensive Exit Plan," U.S. Customs & Border Protection, dated September 27, 2013.

For these reasons, it is encouraging to see the interest of this Committee and the Department in developing a workable biometric Exit program. Although historically some technological challenges may have been obstacles to the government from implementing a valid program, advances in technology mean that this is no longer a valid excuse.

Biometrics are now part of mainstream industry and security efforts. They are available on your iPhone, and utilized at locations as diverse as casinos and an amusement park. Similarly, biometrics should also be utilized to determine Exits of foreign nationals from the United States. CBP appears to be recognizing this shift and improvements in technology by partnering with S&T to identify and leverage pilot approaches. Building upon this work, any new immigration reform statute should mandate a robust, biometric Exit program, and give the DHS sufficient resources to implement and enforce this program.

Instant, verified biometric Exit data would be extremely useful to law enforcement, for both terrorism cases and routine immigration enforcement.[6] First, biometric exit would be extremely effective in particular national security cases. Significant national security risks may try to leave the country unnoticed. Biographic-centered exit systems do little to prevent these determined individuals from escaping the clutches of Joint Terrorism Task Forces or other law enforcement efforts. One example of this is the Times Square bomber, who evaded a biographic-only exit system (but was fortunately apprehended on the runway). More recently, the Joint Terrorism Task Force

[6] Biometric exit would also transform the metrics and information used by the government in evaluating the visa waiver programs, and also reduce traveler errors caused by confusing or inaccurate biographic information.

lead provided by the Russian government on Boston Marathon bomber Tamarlan Tsarneav, who was a legal immigrant subject to immigration controls, was significantly stymied when Tsarneav's name was misspelled by the airline. As a result, the FBI did not ever know he had actually departed the country. A biometric exit would have instantly verified Tsarneavi's identity, whether or not his name was spelled correctly.

ICE's routine enforcement efforts would also be enhanced with an effective, biometric Exit program. Such a system would allow ICE to more effectively enforce immigration laws against individuals who overstay their visas. Currently there are approximately 300 dedicated Counter Terrorism Compliance Enforcement Unit (CTCEU) agents. They prioritize leads based on a threat matrix developed in cooperation with the intelligence community. Because we do not have an effective exit system, many times ICE agents are inadvertently referred or focus on high priority leads who have already left the country. This is a waste of law enforcement efforts. Without a biometric component, doing the checking that is involved to guarantee that that individual has actually left (and not an imposter, etc.), often ICE has to engage and even deploy overseas resources to confirm that the individual has left the country. This is not a simple paperwork exercise. Often this requires agents going out in the field and verifying or validating departure. Such efforts are not only a waste of time, but a significant drain on ICE's limited financial resources. Such a sap on resources would be unnecessary with a biometric component.

An effective biometric Exit program would also be useful to confirm certain types of Voluntary Departures. These departures require the individual to check in with the consulate. Often this is not done, or the individuals do not understand that they need to

do it. ICE agents are required to investigate and confirm that departures have occurred. This takes ICE and State Department hours.

Even more generally, a robust Exit program would provide enhanced value in investigations and criminal cases of all kinds where government is proving travel as part of the conspiracy or in furtherance of the criminal behaviors.

Despite the many benefits of Exit, the overall value of a robust biometric system is greatly diminished if the enforcement agencies will not enforce violations that such a system identifies. One of the biometric Exit data's core missions is to help restore the integrity of the immigration system. Thus, while ICE will be grateful for clear data on overstays, not having the resources or focus to ensure the law is enforced against overstays will frustrate much of the value of the good work of implementing biometric exit. To ensure that we have successful immigration reform, a commitment to build Exit must also be accompanied by a commitment to enforce the law.

To that end, we must be realistic as to whether biometric Exit will make a significant difference in improving immigration enforcement and reducing the flow of overstays given ICE's current posture on overstay enforcement. The July 2013 GAO report confirmed that routine overstay enforcement is not a priority of the Department. ICE HSI currently spends only 1.8% of its enforcement hours on enforcement against overstays.[7] In addition, as OBIM has increased its data mining methods and contractors understood what ICE was looking for in terms of usable exit data, more and better leads have been provided to ICE every year since 2005. Despite the increase in leads, the

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[7] "Overstay Enforcement: Additional Actions Needed to Assess DHS's Data and Improve Planning for a Biometric Air Exit Program," July 2013, available at http://www.gao.gov/assets/660/656316.pdf (last viewed on September 28, 2013).

number of cases ICE deems worthy of opening for investigations continues to go down. In 2005, for example, 13,000 non-priority leads were sent to ICE and the agency opened 4,600 for investigations. In 2012, over 212,000 non-priority leads were sent to ICE, but the agency only opened 2,800 investigations.[8]

Further data provided in the GAO July 2013 report highlights the lack of enforcement activity against routine overstays. As a part of its review, the GAO identified 1.6 million unmatched overstay records that had not been cleared and were open. DHS agreed to review those records. The GAO Report notes,

> [a]s a result, DHS closed approximately 863,000 records for individuals who had departed, were in status, or had adjusted status, and removed them from the backlog by conducting additional automated checks. Second, DHS reviewed the remaining 757,000 records against national security and law enforcement databases to identify potential national security or public safety threats. As part of this national security and public safety review, DHS also reviewed approximately 82,000 additional records identified by CTCEU that were unresolved or had not yet undergone full review because they did not meet ICE's enforcement priorities (a total of approximately 839,000 combined records). As a result of these reviews, DHS reprioritized 1,901 of the 839,000 records because the subjects of the records could pose national security or public safety concerns and provided them to CTCEU for further review and consideration for enforcement action.[9]

Out of the 1901 records that were determined to be potential public safety or national security risks through this process, ICE took action on very few of them:

| | |
|---|---|
| Arrested: | 9 |
| Could not be located:<br>(investigation closed pending new information) | 266 |
| Referred to Enforcement & Removal Operations (ERO):<br>(no further response provided, see below) | 481 |
| Previously arrested/in proceedings: | 43 |

[8] Id.
[9] Id. at 13.

Already departed U.S: 711

These results are concerning. CTCEU made a significant number of referrals to ICE ERO as part of this process, based on potential concerns that these individuals were a public safety threat (presumably they did not meet the HSI threshold). However, there is no indication whether any of those individuals were arrested or placed on a priority list at ERO. Indeed, as ERO officials explained to the GAO, "few records of potential overstays have met ERO's priorities."[10] The information from CTCEU also does not indicate what communications exist between CTCEU and ERO on these overstays which were specially referred to ERO. Without further explanation, there appears to be a potential disconnect between these parts of ICE – one that benefits those who overstay, but reduces the chances of effective enforcement.

To put these numbers in perspective:

Your chances of being audited by the IRS: 1 in 175.[11]

Your chances of being struck by lightening once in your lifetime: 1 out of 3000.[12]

If you were part of the 839,000 unmatched records specifically identified in the GAO report, the chances that ICE would arrest you for being out of status: 1 out of 16,134.[13]

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[10] Id. at 15.

[11] "What are your chances of winning the lottery," Popular Science, November 2012, available at http://www.popsci.com/science/article/2012-11/dismal-odds-winning-lottery-infographic (last viewed on September 28, 2013).

[12] "Flash Facts About Lightning," National Geographic, June 2005, available at http://news.nationalgeographic.com/news/2004/06/0623_040623_lightningfacts.html (last viewed on September 28, 2013).

[13] GAO July Report, Table 3 at 15. ICE HSI indicated that there were 9 arrests out of the 1901 national security cases, and that an additional 43 people were identified as previously arrested, in removal proceedings, or the subject of an investigation. A total of 52 arrests/removal proceedings commenced out of 839,000.

Such a low level of enforcement suggests that even with biometric Exit in place, the number of overstays may continue to grow unabated due to a lack of enforcement, resources and direction.

Enforcement always requires resources and appropriate prioritization, and any immigration reform bill must include appropriate resources to address these needs, so that the benefit of a biometric Exit does not surpass the immigration components that need it the most to do its job.

Thank you for the opportunity to testify before you about the enforcement implications of an Exit system. I would ask that my entire testimony be placed into the record, and I am happy to answer any questions you have at this time.

Mr. GOODLATTE. Thank you, Ms. Wood.
Mr. Heyman, welcome.

**TESTIMONY OF DAVID F. HEYMAN, ASSISTANT SECRETARY, OFFICE OF POLICY, U.S. DEPARTMENT OF HOMELAND SECURITY**

Mr. HEYMAN. Thank you, Chairman Goodlatte, Ranking Member Conyers, and distinguished Members of the Committee. I appreciate the opportunity to be here this morning.

We want to talk about DHS' role in implementing an exit and entry system. I also want to dispel a few myths about biometric entry and exit.

We all agree that a fully functioning entry-exit system is crucial for immigration control, law enforcement and national security. Tracking the arrival and departure of foreign visitors to the United States is important for enforcing the terms of admission for nonimmigrants, identifying and sanctioning overstays, and for managing our visa waiver program.

To function properly, a system needs a number of things. It needs to capture arrival and departure information of travelers coming to and leaving the United States. It also needs to record immigration status changes, determine if criminal warrants exist, and identify overstay priorities for enforcement action.

The first myth I want to dispel is the notion that if we aren't using biometrics on the departure, we don't have a working entry-exit system. That is not true. The fact is that DHS today manages a fully functioning entry-exit system in the air and sea environments using a combination of biometric and biographic components. The system was built over the last decade. The Department collects biometric and biographic information on entry and biographic information on all individuals who are physically on a departing airplane or sea vessel through our Advanced Passenger Information System, or APIS.

In 2010, DHS began deployment of enhancing the exit system, which improved our ability to automatically match the information from an individual's passport or other travel document upon arrival and departure, information that can be captured electronically so we take human error out of the system.

As a result of these efforts, since April of this year, the Department is now able on a daily basis to identify and target for enforcement action those who have overstayed their period of admission and represent a public safety or national security threat. I want to repeat that. On a daily basis now, the Department identifies and targets those who have overstayed their period of admission. This is a significant improvement over our prior capabilities. And while more work needs to be done to integrate a biometric component into this system, it is incorrect to say the Department lacks a functioning entry-exit system just because we have yet to implement biometrics into the exit processes.

The second myth is that biographic-centered exit systems do little to prevent determined individuals from escaping law enforcement. Faisal Shahzad, the would-be Times Square bomber, is an example of a determined individual who tried to flee the country after his failed bombing attempt, but our exit system prevented

him from escape. Some hours after his vehicle bomb failed to detonate in New York, Shahzad bought a one-way ticket to Pakistan. When CBP ran the APIS manifest looking for who was departing the U.S. on that flight, Shahzad was identified, matched, and taken off the flight into custody.

The third myth is that DHS is resisting calls to implement a biometric solution on exit. DHS knows full well the congressional mandate requiring biometric exit, and we are working toward it. DHS has piloted various biometric exit programs in order to determine when a biometric exit system will be cost-effective and feasible. These have been done in previous Administrations as well as this one. Through these pilots, the Department concluded that implementation would require over $3 billion in investments. If implemented prematurely, particularly without the support of airlines, we would see disruptions to passenger travel and likely drive the costs higher.

Right now, however, the Department's Science and Technology Office is leading an APIS project called Air Entry Exit Reengineering Project. The purpose of this project is to analyze, develop, and test-pilot and evaluate integrated approaches to biometrically confirm the departure of non-U.S. citizens at U.S. airports. S&T and our CBP are also establishing a physical test facility that mimics real-life port scenarios. That facility will be operational in early 2014 and will be used to test the latest technological advancements which my colleagues here on the panel have testified to in biometrics to match departure information arrivals, and I would invite anyone here to come see the operation once we have it up and running next year.

Let me conclude by saying that despite significant challenges, DHS has implemented and currently manages a full functioning entry-exit system in the air and sea environments. The Department is mindful that any exit system must confirm the identity of foreign nationals, ensure the individuals depart the United States, facilitate enforcement, while also not causing disruptions to the flow of passenger travel or airline and airport operations. DHS remains committed to implementing a biometric exit system that achieves all these goals and will continue to make substantial progress in the year ahead.

Thank you for your time, and I look forward to your questions.

[The prepared statement of Mr. Heyman follows:]

**U.S. Department of Homeland Security**

**David F. Heyman**
**Assistant Secretary – Office of Policy**

**United States House of Representatives**
**Committee on the Judiciary**

**Entry-Exit System**

**November 13, 2013**
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## Introduction

Chairman Goodlatte, Ranking Member Conyers, and other distinguished Members, thank you for the opportunity to appear before the Committee to highlight the Department of Homeland Security's (DHS) critical work on implementing a biometric entry/exit system. Today, DHS manages a fully-functioning entry/exit system in the air and sea environments using biometric and biographic components. To illustrate the progress the Department has made, ten years ago, screening of passengers coming to the United States was limited to the Department of State's (DOS) visa process, if applicable, for those individuals requiring a visa; passenger information provided voluntarily by air carriers; and the inspection of a person by an immigration officer upon their arrival at a United States port of entry. There was no biometric collection for visa applicants beyond photographs, nor for individuals seeking admission to the United States. There was very limited pre-departure screening of passengers seeking to fly to the United States and there was virtually no screening of any kind for domestic flights beyond passing through metal detectors at airport checkpoints. There was no advance screening of passengers seeking admission under the Visa Waiver Program (VWP), and interagency sharing of information on terrorist threats was minimal.

In the last decade, with the support of Congress, and by working with our international partners, DHS has significantly adapted and enhanced its ability to detect and interdict threats at the earliest opportunity. Individuals intending to travel to the United States under the VWP must now obtain authorization through the Electronic System for Travel Authorization (ESTA) program before boarding an air or sea carrier for travel to the United States. ESTA screens passengers against various government databases and has virtually digitized the Form I-94W (Arrival/Departure Record) for authorized travelers from participating VWP countries. Additionally, all passengers seeking to fly to, from, or within the United States are similarly screened prior to boarding an aircraft under the Secure Flight program. For non-citizens, passengers' biometrics are collected and checked against terrorist watch lists prior to being issued a visa or being permitted to enter the United States, and agencies share information on known or suspected terrorists with each other. Further, we have developed new capabilities and systems (such as our Advanced Targeting System and Behavioral Detection program) to help identify possible terrorists and others who seek to travel to or within the United States to do harm.

It has long been a goal of the federal government to obtain accurate and timely data on those who overstay[1] their period of admission to the United States. Congress enacted legislation on implementing an entry/exit system to help achieve that goal. As part of a 2004 section of the legislation, such a system would require some form of biometric (i.e., fingerprints) to be collected when a foreign national enters and leaves the United States. The purpose would be to match entry and exit records and determine who is complying with their period of admission to the United States and sanction those who have not.

[1] An individual is deemed an overstay if he or she fails to leave the country within the authorized period of admission.

As you know, many countries use biographic data, which is essentially text data that is commonly included on a data page of a traveler's passport, such as name, date of birth, document information, and country of citizenship. A biographic system is an entry/exit system that matches the information on an individual's passport or other travel document when he or she arrives to and departs the country. By contrast, a biometric system matches data of a biometric or physical component from a person that is unique to an individual (i.e., fingerprints, a facial image, or iris scan) collected when a foreign national enters and leaves the United States.

While the United States did not build its border, aviation, or immigration infrastructure with exit processing in mind, the Department of Homeland Security piloted various biometric exit programs in 15 ports of entry to try to find a way to achieve such a system.[2] Through these pilots, we found that the limitations of existing technology plus the lack of infrastructure for departing passengers would require more than $3 billion in investments as well as significant disruptions to passengers and airlines for a biometric exit program in the air environment alone[3]. The Department has since worked to bring the existing biographic system to a level of fidelity equal to, or nearly equal to, a biometric system while continuing to pursue a more cost-effective biometric solution[4].

Today, the Department manages a fully-functioning entry/exit system that tracks and identifies overstays. Specifically, the Department is now able, on a daily basis, to identify and target for enforcement action those who have overstayed their period of admission and who represent a public safety and/or national security threat. Moreover, we continue to move forward in building a biometric air exit system that can be integrated in the current architecture once it is cost-effective and feasible to do so.

## A Comprehensive Entry/Exit System

Collecting entry and exit data is one part of a comprehensive entry/exit system. If we look at the totality of an entry/exit system, it extends beyond our physical borders to include a number of steps that may occur well before a visitor enters the United States and up to the point at which that same visitor departs the United States through a land, air or sea port of entry/ port of departure.

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[2] There are emerging biometric technologies now available in the market that were unavailable at the time of the pilots. Accordingly, there will be additional opportunities to pursue research and development into a future biometric air exit system, on which Customs and Border Protection (CBP) and the DHS Science and Technology (S&T) Directorate are currently working together.

[3] U.S. airports do not have designated and assured exit areas for outgoing passengers to wait prior to departure, nor do they have specific checkpoints through which an outgoing passenger's departure is recorded by an immigration officer. Air carriers also have raised objections to this requirement, and in 2008, Congress directed DHS to conduct biometric pilots prior to establishing any new system. In the land environment, there are often geographical features that prevent expansion of exit lanes to accommodate additional lanes or the addition of CBP-manned booths.

[4] Typically, most countries use biographic information, which is essentially text data that is commonly included on a data page of a traveler's passport, such as name, date of birth, and country of citizenship. Text data can be electronically read through passport features based on international standards, such as a machine readable zone or an e-Passport chip. A biographic system is an entry/exit system based on matching the information on an individual's travel document when he or she arrives to and departs the United States.

*How DHS Collects Arrival Information*

In instances where the individual needs a visa to enter the United States, information is captured at the time his or her visa application is filed with DOS along with additional information developed upon an interview with a consular officer. It is important to note that if the individual is from a Visa Waiver Program country and does not require a visa, he or she may be required to apply through ESTA. Information is then collected through the ESTA application.

For travelers in the air and sea environment, DHS also receives passenger manifests submitted by air and sea carriers, which indicates every individual who actually boarded the plane or ship. This information is collected in DHS's Advance Passenger Information System (APIS) and then sent to the Arrival and Departure Information System (ADIS), where it will be held for matching against departure records.

When a nonimmigrant arrives at a U.S. port of entry and applies for admission to the United States by air or sea, the traveler is interviewed by a CBP officer regarding the purpose and intent of travel. His or her document is reviewed, law enforcement checks are run, and biometrics (fingerprints and photo) are screened against and stored in the DHS systems. If admission is granted, the CBP officer will stamp the traveler's passport with a date indicating his or her authorized period of admission. Based on electronic information already in DHS's systems, a Form I-94, Arrival/Departure Record, is electronically generated for that person and can be printed remotely by the individual if the individual needs it to provide evidence of legal entry or status in the United States. The form also indicates how long the person is authorized to stay in the United States.

When an individual bearing a nonimmigrant visa arrives at a land port of entry, the individual is sent to secondary inspection where biometrics are collected (if appropriate) and CBP may issue that person a Form I-94A, Departure Record, which records their authorized period of admission.

*How DHS Collects Departure Information*

Similar to the way DHS gathers passenger manifests prior to entry through the air and sea environments, DHS also collects through APIS passenger manifests submitted by commercial air and sea carriers departing the United States. Since 2008, collection of this information has been mandatory and compliance is near 100 percent resulting in a fully functioning exit system in the air and sea environments using biographic data. Carriers are required to report biographic and travel document information to DHS for those individuals who are physically on the airplane or sea vessel at the time of departure from the United States and not simply on those who have made a reservation or scheduled to be on board. DHS monitors APIS transmissions to ensure compliance and issues fines for noncompliance on a monthly basis. CBP transfers this data (excluding data for U.S. Citizens) to ADIS, which matches arrivals and departures to and from the United States[5].

[5] DHS uses this information for a variety of immigration and law enforcement reasons, including to determine which travelers have potentially stayed past their authorized period of admission (i.e., overstayed) in the United States.

*How DHS Addresses Overstays of Authorized Period of Admission*

When information reveals that an individual is a confirmed overstay, the Department takes action, including working with DOS to revoke visas and apprehending individuals. Since FY 2011, DHS has made substantial improvements to maximize our ability to identify, prioritize, and sanction confirmed overstays.

As of April 9, 2013, DHS has implemented the following system updates:

- Automation of the flow of information between ADIS and the Automated Targeting System for Passengers ATS-P: CBP has updated the flow of information between ADIS and ATS-P to reduce manual processes for moving data between the two systems. This update saves time, improves processing quality, increases efficiency, and better protects privacy, as the transfer of information occurs through secure electronic means instead of manually saving information on portable devices.

- Use of ATS-P to enhance name matching for overstay vetting: CBP has leveraged existing ATS-P matching algorithms, previously not available to ADIS, for the purposes of better matching names in entry and exit records, thereby improving the accuracy of the overstay list. Additional matching algorithms have helped identify matches that the original ADIS system may have missed.

- Development of Basic Immigration and Customs Enforcement (ICE) Overstay "Hot List": CBP created an operational dashboard for ICE agents that automatically lists and prioritizes validated records of individuals who may have overstayed and who are likely still in the United States, pursuant to national security and public safety criteria. This reduces the previous manual process in the exchange of data between NPPD/OBIM and ICE and allows ICE to allocate resources to those cases of highest priority, on a near real-time basis.

- Implementation of an ADIS to IDENT interface: This effort created an interface between IDENT (the biometric database for DHS) and ADIS, the two systems currently housed at the Office of Biometric Identity Management (OBIM)[6]. This helps reduce the number of records on the overstay list by providing additional and better quality data to ADIS, closing information gaps between the two systems.

- Improved ability of ADIS to match United States Citizenship and Immigration Services' (USCIS) Computer Linked Adjudication Information Management System (CLAIMS 3) data: The Department has worked to improve the quality, timeliness, and relevance of data sent from CLAIMS 3 to ADIS, improving the ability of ADIS to match the data accurately with other records. Many aliens enter the United States and then extend or change their status lawfully, and therefore have not overstayed even though their initial period of authorized admission has expired.

[6] OBIM supports DHS components by providing matching services against its databases (IDENT and ADIS collectively) and returning any linked information when a match is made as they vet individuals already encountered by DHS to identify known or suspected terrorists, national security threats, criminals, and those who have previously violated U.S. immigration laws.

By mid-FY 2014, DHS plans to develop and deploy:

- Unified Overstay Case Management process: Through a data exchange interface between ADIS and ICE's LeadTrac system[7], overstay case management work is being migrated to one analyst platform, LeadTrac, for DHS. Additionally, ADIS will receive enhanced overstay case management updates from ICE.

- Enhanced ADIS and Transportation Security Administration (TSA) Alien Flight Student Program (AFSP) data exchange: TSA relies on ADIS to identify overstays who are enrolled in the AFSP and provide them to ICE for action. ADIS will utilize existing overstay vetting operations to increase efficiency and prioritization of TSA AFSP overstays within the ADIS overstay population.

- Enhanced Overstay Hot List: The Enhanced Overstay Hot List will consolidate immigration data from multiple systems to enable ICE employees to more quickly and easily identify current and relevant information related to the overstay subject. DHS will expand capability, including the use of additional law enforcement and counterterrorism data in the Hot List for ICE, which will return the results from multiple database queries in a consolidated dossier, from which analysts can more easily retrieve the relevant information.

- User Defined Rules: DHS will develop a capability for ICE agents to create new or update existing rule sets within ATS-P as threats evolve, so that overstays are prioritized for review and action based on the most up-to-date threat criteria.

The measures already in place have proven to be valuable in identifying, removing, and sanctioning overstays. The above DHS implementations have strengthened data requirements through computer enhancements, identified national security overstays through increased collaboration with the intelligence community, and automated manual efforts through additional data exchange interfaces. DHS looks forward to continuing this progress in FY 2014.

*The ICE Overstay Analysis Unit (OAU)*

To support DHS's commitment to enhance its vetting initiatives across the full mission space of homeland security. The OAU vets the system identified overstay records to confirm status and prepare the records to be sent to the ICE Counterterrorism and Criminal Exploitation Unit (CTCEU) for possible law enforcement action. Specifically, the OAU analyzes biographical entry and exit records stored in OBIM's ADIS to further support DHS's ability to identify international travelers who have remained in the United States beyond their authorized periods of admission.

[7] LeadTrac is an ICE system designed to receive overstay leads to compare against other DHS systems and classified datasets to uncover potential national security or public safety concerns for referral to ICE field offices for investigation. The system employs a case management tracking mechanism to assist with analysis, quality control reviews, lead status and field tracking.

The OAU analyzes and validates two types of nonimmigrant overstay records: out-of-country overstays (OCO) and in-country overstays (ICO). OCO records pertain to visitors who stayed beyond their authorized admission period and subsequently departed the country. The OAU validates these violations based on their reported departure dates and creates biometric and biographic lookouts for these subjects, in case the subjects attempt to enter the United States in the future. The out-of-country overstay violator lookouts are posted in two separate databases: the IDENT Secondary Inspection Tool and CBP's TECS[8] to alert and notify Department of State consular officers and CBP officers of a subject's violation before he or she is granted a visa or re-entry to the United States. In-country- overstay records pertain to visitors who remain in the United States with no evidence of departure or adjustment of status upon expiration of the terms of their admission. The OAU reviews and validates these ADIS system identified violations based upon ICE identified categories of interest.

Typical overstay violators are addressed by nonimmigrant overstay leads, which are used to generate field investigations by identifying foreign visitors who violate the terms of their admission by remaining in the United States past the date of their required departure and who meet the Department's enforcement priorities.

VWP violators are addressed by CTCEU's Visa Waiver Enforcement Program (VWEP). Visa-free travel to the United States builds upon our close bilateral relationships and fosters commercial and personal ties among tourist and business travelers in the United States and abroad. Today, ICE regularly scrutinizes a refined list of individuals who have been identified as potential overstays who entered the United States under the VWP. One of the primary goals of this program is to identify those subjects who attempt to circumvent the U.S. immigration system by obtaining travel documents from VWP countries.

*The ICE CTCEU*

In 2003, DHS created CTCEU, which is the first national program dedicated to the enforcement of nonimmigrant visa violations. Each year, the CTCEU analyzes records of hundreds of thousands of potential status violators after preliminary analysis of data from the Student and Exchange Visitor Information System (SEVIS)[9] and the OAU[10] along with other information. After this analysis, CTCEU determines potential violations that warrant field investigations, (based on national security or public safety concerns) and/or establishes compliance or departure dates from the United States. Between 15,000 and 20,000 of these records are analyzed each month and over two million such records have been analyzed using automated and manual review techniques.

[8] TECS (not an acronym) is the updated and modified version of the former Treasury Enforcement Communications System. It is owned and operated by CBP.
[9] SEVIS is the database used for monitoring certified schools, F, M, and J non-immigrant students, and their dependents.
[10] OAU is in ICE's National Security Division and is a "sister" unit to the CTCEU. The CTCEU and OAU work collaboratively to identify and enforce overstays.

Today, through the CTCEU, ICE proactively develops cases for investigation in cooperation with the Student and Exchange Visitor Program (SEVP)[11] and the OAU. These programs enable ICE agents to access information about the millions of students, tourists, and temporary workers present in the United States at any given time, and to identify those who have overstayed or otherwise violated the terms and conditions of their admission and identified as national security or public safety concerns. To ensure that the potential violators who pose the greatest threats to national security are given priority, ICE uses intelligence-based criteria, developed in close consultation with the intelligence and law enforcement communities.

ICE special agents and analysts monitor the latest threat reports and proactively address emergent issues. This practice, which is designed to detect and identify individuals exhibiting specific risk factors based on intelligence reporting, including travel patterns, and in-depth criminal research and analysis, has supported high-priority national security initiatives based on specific intelligence.

## Enhancing the Department's Exit System

In 2003, DHS began development of a biometric entry/exit system and, in 2004, fully implemented a biometric air *entry* solution into existing inspection booths that is currently in operation. Biometric land entry was deployed between 2004-2005. By contrast, implementing a biometric exit capability has been a significant challenge. The air environment afforded a single point where travelers were processed for admission to the United States and biometrics could be incorporated, whereas our airports were never architected for an exit control. DHS remains committed to maximizing the efficiency and effectiveness of the current entry/exit system, and has made progress in the last few years.

In May 2012, DHS provided a report[12] to the House and Senate Appropriations Committees that described the Department's plan for enhancing its existing biographic exit program. As part of this plan, various DHS Components have been and are currently strengthening systems and processes in order to improve the accuracy of data provided to ADIS. This will enable ADIS to more accurately match entry and exit records and determine who may constitute an overstay, and whether that person presents a national security or public safety concern. Data that is entered into ADIS comes from a variety of sources in the Department including USCIS, CBP, and ICE. In addition, DHS has also identified mechanisms to improve the "output" of ADIS, to ensure ICE investigators receive priority high-risk overstay cases for resolution in a timely fashion, and to ensure other ADIS stakeholders (such as CBP, USCIS, and DOS) receive the best possible information with which to make immigration decisions.

To continue to explore the feasibility of a cost-effective and efficient biometric exit solution, in March 2013, CBP and S&T initiated a joint Air Entry/Exit Re-Engineering (AEER) Apex project[13] to determine how and when a biometric air exit concept would be feasible. The purpose of the AEER Project is to analyze, develop, test, pilot, and evaluate integrated

[11] SEVP is the program that facilitates and manages SEVIS.
[12] *Comprehensive Exit Plan, Fiscal Year 2012 Report to Congress.*
[13] Apex Programs are S&T initiatives that focus on cross-cutting or multi-disciplinary efforts, which are initially requested by DHS components and are of a high priority, high value, and urgent nature.

approaches to biometrically confirm the departure of non-U.S. citizens at U.S. airports, as well as to introduce more efficient traveler facilitation processes and effective biometric technologies to screen travelers entering the United States.

*Land Entry/Exit Program*

Today, as part of the Beyond the Border Action Plan[14], the United States has a fully functioning land border exit system on its Northern border for non-U.S. and non-Canadian citizens in addition to the existing air and sea entry/exit system. In FY 2012, approximately 72 million travelers entered the United States through the border with Canada. Canada and the United States agreed to exchange land entry records at ports of entry along the US-Canadian border in such a manner that land entries into one country will serve as exit records from the other. Canada and the United States began with a pilot program that exchanged data on third-country nationals at several land ports during a four-month period that ended in January 2013.[15] During the pilot, the United States was able to match 97.4 percent of records received from Canada to existing entry records.

The second phase of the project was deployed on time on June 30, 2013.[16] During this phase, Canada and the United States are exchanging the entry data for third-country nationals, permanent residents of Canada, and U.S. lawful permanent residents in the United States, who enter through *all* automated common land ports. Over one million records have been received from the Canada Border Services Agency since Phase 2 was initiated and the match rate of exit records received from Canada against existing U.S. entry records are over 98 percent.

By June 30, 2014, Canada and the United States will implement the third phase of the project, expanding the program to include the exchange of entry data for all travelers (including U.S. and Canadian citizens) who enter through any automated common land ports on the Northern border. Overall, this initiative is expected to enhance the ability to identify departures and successfully match entry and exit records at the land border for the first time.

*Entry/Exit Going Forward*

A comprehensive entry/exit system is key to supporting DHS's mission. However, the Department's continuing efforts to improve the entry/exit system a system should not be construed to mean that DHS does not already have a functioning exit/entry system in place. The Department continues to close the entry/exit gap by matching information obtained through air and sea manifests and exchanges with Canada. This year, through the FY 2013 DHS appropriation, CBP was tasked with the entry/exit mission, including research and development into biometric exit programs. CBP has also established an Entry/Exit Transformation Office dedicated to managing and coordinating the entire spectrum of entry/exit efforts, including expansion of the entry/exit effort with Canada at the land border. This office is pursuing every opportunity to leverage DHS's investments in the southwest border and those that can be obtained in partnership with Mexico. Other projects to enhance exit management include an

[14] *United States Canada Beyond the Border: A Shared Vision for Perimeter Security and Economic Competitiveness, December 2011 Action Plan.*
[15] The four locations were Peace Arch, Pacific Highway, Rainbow Bridge, and Queenstown/Lewiston.
[16] http://www.cbp.gov/xp/cgov/newsroom/news_releases/national/07032013.xml.

audit of airline manifest departure data in September and October to establish a biographic baseline to measure the success of future biographic and biometric exit solutions and improvements. In addition, the audit will allow CBP to ensure the credibility of APIS data used to calculate the overstay rates.

Working with S&T, the office is establishing a physical facility that mimics real-life port scenarios. This facility, which will be operational in early 2014, will be used to test the latest in technological advancements in biometrics that may be candidates for use in matching departure information to arrivals. Only through this testing can CBP and S&T identify and qualify potential solutions, as well as assess the economic impacts of such solutions. As the test facility is being built this fall, CBP will develop strategies, goals, and objectives for the biometric air exit system that will be used to inform the testing process that will begin in 2014.

DHS anticipates that these initiatives will enhance the existing entry/exit system in a myriad of ways that support our mission. The comprehensive entry/exit system will:

- Take full advantage of, and enhance the existing automated entry/exit capability that produces information on individual overstays;
- Incorporate and use biometric information as technologies mature and become more affordable;
- Improve DHS's ability to take administrative action against confirmed overstays, enhancing the Department's ability to take administrative action as quickly as possible—including visa revocation, prohibiting re-entry into the United States, and placing individuals on lookout lists, as necessary;
- Support further the administration and enforcement of our country's immigration laws—by improving DHS's ability to identify who exits the United States, thus deterring individuals from remaining in the country illegally; and
- Enable DHS to better maintain a focus on individuals who may wish to do us harm and facilitate the legitimate travel of those who do not, while protecting the privacy of U.S. citizens and legal permanent residents.

DHS will continue to consider the traveler, stakeholders, and the Department when architecting a system that is easily adapted to current physical and infrastructure limitations, minimizes disruptions to travel, proves to be cost-effective, and is flexible enough to address not only current requirements but also to anticipate future ways of conducting business.

## Conclusion

Despite significant challenges, over the past several years, DHS has implemented and now manages a fully-functioning entry/exit system in the air and sea environments, and is continuing to enhance capability for land. While the United States did not build its border, aviation, or immigration infrastructure with exit processing in mind, the Department of Homeland Security has worked to bring the existing biographic system to a level of fidelity equal to, or nearly equal to, a biometric system while continuing to pursue a more cost-effective biometric solution.

Specifically, the Department is now able, on a daily basis, to identify and target for enforcement action those who have overstayed their period of admission and who represent a public safety and/or national security threat. Moreover, we continue to move forward in building a biometric air exit system that can be integrated in the current architecture once it is cost-effective and feasible to do so.

While implementation of a robust and efficient biometric solution will take time, DHS has and will continue to take appropriate steps to evaluate emerging biometric technologies and work with appropriate public and private sector stakeholders, such as the airlines and airports and other federal agencies.

The Department's continuing efforts to improve the entry/exit system should not be construed to mean that DHS does not already have a functioning exit/entry system in place. Rather than wait for a time when funding or capabilities are sufficient to implement a fully biometric system, the Department has built and is improving on a system that is effective today – and one which we will continue to enhance in the future.

Thank you.

Mr. GOODLATTE. Thank you, Mr. Heyman.

I will begin the questioning with a question to you regarding your comments there about the exit systems that are administered.

You indicated that you have a biographic system. Isn't it true that more than a million people are unaccounted for in that system as to whether or not they have exited the country?

Mr. HEYMAN. The number that you are referring to dates back to 2 years ago when there was an identification of backlog in our overstay processing, and it was about 1.6 million at that time.

Mr. GOODLATTE. Let me ask you about your land exit system. Do you collect biographic data from individuals departing the country by land ports?

Mr. HEYMAN. There is no infrastructure on the border to collect biometric information. On biographic, we have a pilot in the northern border right now with Canada that allows us to receive data from Canada every time somebody leaves the United States and enters Canada. An entry in Canada counts as an exit in the United States. And so we are now piloting that with great effect.

Mr. GOODLATTE. Well, I am glad you have that pilot. With regard to the southern border of the United States, I take it that even though that has a very large percentage of the total number of people who exit the United States each day, there is no biographic or biometric data collected.

Mr. HEYMAN. We are in conversations with the Mexican government to do something similar to what we are doing on the northern border, and we have begun some pilots to look at the biographic system down there as well. Thank you.

Mr. GOODLATTE. Good. Thank you. And I hope you will keep the Committee informed of that effort.

Mr. HEYMAN. Absolutely.

Mr. GOODLATTE. Ms. Wood, thank you very much for your testimony. I was struck by your comment that while 35 to 40 percent of people who are unlawfully present in the United States are overstays who enter the country legally, that ICE is only spending 1.8 percent of its man hours in terms of dealing with that 35 to 40 percent of the illegal immigrants in the United States. It seems to be a very disproportionate ratio there.

Ms. WOOD. It certainly does. I mean, ICE has a lot of statutes that it has to enforce. This number, 1.8 percent, comes from evidence and information they provided to GAO during the GAO review. You would think that perhaps ERO, which is another part of ICE, would also enforce against overstays, but they have said they don't have the funding to do it and that those individuals also are not priorities.

So when you think about how do we go forward and get a workable immigration system, someone has to address kind of the problem of people who will continue to overstay.

Mr. GOODLATTE. Thank you.

Mr. Albers, is a biometric exit system feasible, and can it be completed at land ports, including vehicles, which I understand is the greatest challenge, within a reasonable amount of time?

Mr. ALBERS. I believe that a biometric exit system for air and sea could be completed within 2 years. I think there are challenges with land. I will tell you that my company and a lot of the bio-

metrics industry really started in Iraq and Afghanistan, and we have proven that biometrics works in the toughest of environments over there. So I feel very strongly that DHS is proposing a pilot program and then rolling biometric controls onto exits at land borders over a period of time. I think that is a wise approach. But I do think it can be done.

Mr. GOODLATTE. And what has changed in terms of the technology in the 17 years since we first asked for this and the 9 years since we first asked for it to be biometric that makes it more feasible today?

Mr. ALBERS. Well, I am glad you asked that question, Mr. Chairman. When I first got involved in this business, I worked for a company called Sarnoff, which was the research facility for RCA for years, and we developed the first Iris on the Move program. That program probably cost $2 million, and the first prototypes that rolled off the platform there were about $250,000 each. Now, they were put together by a bunch of Ph.D.s, so it was pretty expensive.

What has happened in the 7 years since that time is a number of companies, including Aoptics, which is in Ms. Lofgren's district, have developed Iris on the Move and Face on the Move systems that you can buy for $10,000 or $15,000. So not only has the technology gotten way better than it was 7 years ago, it has gotten a lot cheaper.

Mr. GOODLATTE. Thank you.

Ms. Kephart, you were on the staff of the 9/11 Commission, and that commission recommended "the Department of Homeland Security, properly supported by the Congress, should complete as quickly as possible a biometric entry-exit screening system." Why did the Commission make that recommendation?

Ms. KEPHART. When we were investigating the terrorist travel patterns, which was my job on the commission, we learned in our work with others on the commission staff that there were two hijackers in August of 2001 who were watch-listed. We knew they had come into the country, but we did not know where they were at the time of late August 2001. The FBI could not figure out from immigration records if they had ever left. They came under the assumption, after about a week of work and having a lot of other investigations to do, that it wasn't worth their time because they didn't know whether they were here or overseas and figured they had left. They indeed had not left, and 9/11 happened.

So, you know, not to put it all on those two watch-list items, but that was the reason that we looked at name-based and the fraud. And remember, too, the hijackers had about 300 different aliases. They had any means of name change to use. They had gotten new passports and new visas before they came to the United States. There were so many ways to trick the system into entry-exit data that was not exactly real.

So we decided and the commissioners decided to take up the recommendation that you need to use a physical verifier that is fraud-proof, and that is why we recommended the biometric exit.

Mr. GOODLATTE. Let me ask you one more question, if I may. You recently issued a report entitled "Biometric Exit Tracking: A Feasible and Cost-Effective Solution for Foreign Visitors Traveling By Air and Sea." In this study, you discussed numerous statutes

that have been in place since 1996 mandating an exit system. Given that there are numerous statutes in place, what, if anything, do you think can be done legislatively in order to ensure biometric exit system is implemented at all air, land, and sea ports?

Ms. KEPHART. Thank you for that question. It is something I spent quite a bit of time on when I was special counsel over in the Senate a few months ago, working on the immigration reform legislation and really thinking about that question hard.

I don't think a lot needs to be done. There are eight statutes on the books already. The 2004 Intelligence Reform Act lays out the mission and requirements of the exit very, very well. What needs to be done, however, is there are some contradictions that are left because there are so many statutes on the books.

So one of the biggest contradictions is the 2013 Homeland Security Appropriations Act requires that Customs and Border Protection implement biometric exit, which I think is the right way to go. The 2007 Act requires that the air carriers implement the requirement. That has caused a tremendous amount of problems. There is no need for the air carriers to be involved with it.

So, one, air carriers need to be out of the equation statutorily. Number two, the airports are a stakeholder in this and need to be in the legislation proactively. Number three, we need to fund it. You can't expect DHS to do this without either authorization for fees or an appropriation. It is not fair to them. And number four, you need to have a deadline, I think, going forward, because we have too many statutes on the books where the deadlines have already been overrun by years.

So a reasonable amount of time to get this done, and I think air and sea is pretty quick, and land requires a little more time and effort.

Mr. GOODLATTE. Thank you very much.

The Chair recognizes the gentleman from Michigan, Mr. Conyers, for his questions.

Mr. CONYERS. Thank you, sir.

I thank all of the witnesses.

Secretary Heyman, I wanted to get your understanding about the bipartisan immigration reform bills that are still pending in Congress. Now, the other body, the Senate, has already passed their immigration bill, and the House bill, one House bill has 191 cosponsors, but we haven't had a hearing yet on it. And both bills contain provisions requiring the Department to make progress implementing such systems.

What I am wondering is how do you think this comprehensive entry-exit system fits into the larger scheme of comprehensive immigration reform?

Mr. HEYMAN. Thank you, Mr. Conyers. The comprehensive immigration reform is a critically important piece to our security, to our immigration system, and frankly in the context of this conversation and the concern about overstays, perhaps one of the biggest acts that Congress could do is to pass it so that we take away the prospect of overstays and eliminate that to the extent that we can, or at least mitigate it compared to where we are today, which is obviously a concern of this Committee and the reason why we are having this hearing.

So in terms of the entry and exit system, we are going to continue to move forward with that. There are statutes on the books to do that, and in the air and sea environment we have made substantial progress. We will continue to do that, as I have testified. I do think that taking away the magnet to the United States, ensuring that we have greater border security, elements of the comprehensive immigration reform that the Senate has passed would be helpful to helping reduce overstays.

Mr. CONYERS. Thank you.

Ms. Myers Wood, I am not sure if you are accurate in saying that the Times Square bomber evaded a biographic-only exit system when, in fact, he was apprehended on the runway, taken into Federal custody. And he was apprehended, it seems to me, because the passenger manifest was provided by the airline to Customs and Border Protection, and his name came up in a search of Federal databases. So I interpret that as a biographic exit success story. Would you agree with me on my analysis of this particular situation?

Ms. WOOD. Yes, certainly I think we were very fortunate that we were able to apprehend him on the runway, and that was, in fact, because of the biographic systems. I think earlier than the runway, if it was biometric, we would have caught him earlier than the runway. But I would agree with you, we were very fortunate that we caught him on the runway, and the biographic systems, law enforcement uses them every day, and they catch a lot of individuals, and DHS is working hard through the pilots and other things to improve those systems.

Mr. CONYERS. Mr. Secretary, again, what steps has Homeland Security taken to enhance the U.S. exit systems for purposes of immigration enforcement and enhancing national security?

Mr. HEYMAN. Thank you, Congressman. Just on your last question, biometric would not have helped Shahzad. He was a U.S. person, U.S. citizen, and therefore would not have been part of the biometric system as they are not screened.

Mr. CONYERS. Thank you.

Mr. HEYMAN. The improvements that we have done over the last 3 years, in 2010 we made a decision to enhance the biographic system. What did not exist until April of this year was the ability to automate the linkages between the numerous systems that must be accounted for to determine if you have overstays and to determine whether they are national security concerns. Whether it is a change in status because of immigration changes and linked to the USCIS systems, whether it is a review of a national security concern and linking to our CBP targeting capability, all of those linkages were put in place over the last 2 years. Our matching algorithms were improved. We have piloted the land border that I mentioned.

And actually, all of this came out of—the Chairman asked the question about the overstays. This all came out of our review of those overstays, the backlog, the 1.6 million, and we recognized in doing that review that the automation and increased linkages of the databases so that we could do real-time overstay identification, tracking and sanctioning, that was the beginning of that, and it

laid a foundation for the entry-exit system that we now have in place as of April of this year.

Mr. CONYERS. Thank you very much for your comments.

Mr. GOODLATTE. The Chair now recognizes the gentleman from North Carolina, Mr. Coble, for 5 minutes.

Mr. COBLE. Thank you, Mr. Chairman.

Good to have you all with us, folks.

Mr. Albers, I was going to ask you about the feasibility of the biometric system. I think you and Chairman Goodlatte pretty well discussed that, so I won't revisit that.

Ms. Wood, what problems do you foresee if legalization occurs without biometric exit in place?

Ms. WOOD. I think that without biometric exit, ICE and CBP and other enforcement agencies are still going to have kind of continued difficulty both in their routine enforcement and in identifying terrorists and other individuals that are trying to leave the country. I do think DHS has made a lot of progress, but I think given the advances in technology so wonderfully highlighted by the other witnesses here, I think DHS is at a point now where they have to move forward and give law enforcement really what it needs so that we can keep our country secure.

Mr. COBLE. Thank you, Ms. Wood.

Ms. Kephart, you and the Chairman may have discussed this one. I was going to ask you about if you believe that complete biometric exit of all ports of entry would be a useful national security tool. I think you may have addressed that earlier, did you not?

Ms. KEPHART. Not head-on, sir, so I would be happy to address it again if you would like.

Mr. COBLE. How about trying it?

Ms. KEPHART. All ports of entry is an interesting question. My view is, and the thing that I have always emphasized in my work since I worked on the 9/11 Commission, and even before that when I was doing terrorist work prior to the 9/11 Commission, is that terrorists will use, like any criminal, will use any vulnerability that there is in the system to get through. So as long as there is something open, they will use it.

So to the extent that we can build out, we certainly have our priorities on biggest ports of entry, for example, that we need to do first. But as we move it out and as we see the expense and we are able to level that expense out, I think you need to include every port of entry down the road. I don't know if we can do that in 2 years, every single one, but I think all air and sea you can. I am not sure about land, but all air and sea you can, for sure.

Mr. COBLE. Thank you, Ms. Kephart.

Mr. Chairman, I am going to yield the balance of my time to the gentleman from Texas.

Mr. SMITH OF TEXAS. I thank my friend from North Carolina for yielding.

Let me say at the outset that, in my view at least, we are simply not going to have other immigration reforms until we secure our borders and secure the interior. So there is, in my view, good reason to have bipartisan support for an entry-exit system. And I am encouraged by the fact that all of our witnesses today seem to be

looking for ways to implement such a system rather than looking for reasons not to implement such a system.

Ms. Kephart, let me just follow up on your last response and just reemphasize the point that you have already made, and that is we are simply not going to be able to either deter or detect the visa overstayers unless we have an entry-exit system at all ports of entry, including land, air and sea. Is that correct?

Ms. KEPHART. Yes, sir.

Mr. SMITH OF TEXAS. And then it hasn't been too long since the Department of Homeland Security estimated, for example, that on sea and air, the cost would be something like $3 billion. I think we now, with modern technology, have really gotten to the point where it is about one-sixth of that cost, several hundred million dollars, not several billion dollars. How did we get to that point? What is it that is reducing the cost of the entry-exit system, whether it be air, land or sea?

Ms. KEPHART. There are a number of factors, and I think Mr. Albers can help me with this as well.

Mr. SMITH OF TEXAS. I am going to ask him next, right.

Ms. KEPHART. Yes. There are a number of factors. The solutions right now are much less expensive, and they are much better than they were a number of years ago. This is a young industry that hasn't fully matured yet, and it is maturing, so you have lots of opportunity.

There is another piece of it, too. Even in the 2009 pilot that worked extremely well, you had about 60 seconds per person, whether it was TSA or CBP, conducting the biometric. It took about 60 seconds. Now fingerprints, iris, can be done in 2 seconds. You can do multimodal face-hands-iris in combination in 20 with a travel document, 20 seconds. So it is very quick.

Think about the time you spend in a TSA line and all the manpower that goes into that, versus that quickness. A lot of these are kiosk or eGate solutions. If you decide to go that route, the manpower costs come down substantially. That is where the hub of your cost is going to be, is on the manpower. The 2008 assessment had both air carriers and CBP doing work on this. Now, if you don't have the air carriers and you only have one-eighth the number of CBP folks in your best possible scenario of an eGate, that is significant reduction in cost.

So you have a lot of networking and et cetera, you don't have to go through the air carriers to bring the data in. You are going to go directly government to government. That is also a cost saving. There are lots of places and nooks and crannies in this 2008 assessment where the costs really have come down significantly.

Mr. SMITH OF TEXAS. Okay. Thank you, Ms. Kephart.

I am going to yield back and then resume my questions.

Mr. COBLE. I reclaim and yield back. Thank you.

Mr. GOODLATTE. The Chair recognizes the gentleman from Virginia, Mr. Scott.

Mr. SCOTT. Thank you, Mr. Chair.

Mr. Heyman, let me nail down the amount of money it would cost to get this program up and running. We have had a couple of different numbers. Is the number $3 billion?

Mr. HEYMAN. The numbers that we are citing that everybody is using to evaluate are the numbers based upon a 2009 study. So the reason we stood up a test facility is to actually evaluate what the real costs are today. Our goal has always been to get those costs down.

What is really important for Congress to appreciate is it is not just putting technology someplace and making it work. It is a concept of operations which we need to test. What technology are we talking about? Are we talking about iris? Are we talking about fingerprinting? Are we talking about facial recognition? And how is it used?

Mr. SCOTT. I was looking for a number.

Mr. HEYMAN. We don't have an up-to-date number because technology costs have gone down, but the labor costs may be maintained, and how you put that technology in the facility makes a difference.

Mr. SCOTT. Are you anticipating a universal coverage, not just the high-volume ports and airports and what-not? I think Ms. Kephart just suggested if it is not universal, if it had some holes in it, that is where people are going to go.

Mr. HEYMAN. You are going to want to put it in air terminals at every departure gate, I believe, where there is an international departure. If you don't put it in the departure gate, one of the proposals here is to do it at the TSA check-in. People can come in to the check-in and leave the departure area without actually departing the United States, and you don't have assurances.

So again, the concept of operations is really important. So departure gates, and they are distributed across airports. So you can't just put 25 eGates in one place and have one guy watching it. Our airports were not set up for exits, so they are distributed across the entire airport. You are going to have to have people manning those.

Mr. SCOTT. How accurate are the biometric screens? Do you get false positives or false negatives?

Mr. HEYMAN. So the technology has been significantly improved since our pilots four or 5 years ago. False positives are down. Again, it depends upon which technology you choose, whether it is facial recognition, which are a little bit higher and problematic, versus iris scans or fingerprinting, where false positives are much lower.

Mr. SCOTT. Can you implement this plan without adversely affecting the flow of commerce at ports?

Mr. HEYMAN. We wouldn't want to implement it any other way, but that is the question. What is your concept of operation? Once we find out what technologies work best, we have to put them in play, and the test facility will allow us to do that, to check the flow rates, to check the ease of use, to determine if you are putting it on the jetway, if vibrations are setting off cameras so that you are not getting accurate reads. The environment matters, the operation matters, and so that is what we are going to do the test facility for next year.

Mr. SCOTT. You mentioned you are working with Canada and will be working with Mexico on coordinating. Are you using any other foreign ports of demarcation? I know with port security, we

are screening some of the containers at the foreign ports. Are you thinking about doing that with the biometrics?

Mr. HEYMAN. So we are talking about people leaving the United States across the land border. They either do it by walking across or driving, principally. There is no infrastructure right now on our southern border, and in some senses on our northern border, for either fingerprinting somebody or getting their iris. You would have to get out of the car to do it, which would slow down the entire system; or you would have to develop something, whether it is a toll booth concept or otherwise. But even with a toll booth concept, you don't want people sneaking into the car and not knowing if it is the person holding the technology. So if you are doing a fingerprint, it has to be the right person holding the technology. And two, are they hiding? Who is going to be watching to make sure somebody is not hiding and trying to leave the country?

Mr. SCOTT. What biographic and biometric information is gathered?

Mr. HEYMAN. Where, sir?

Mr. SCOTT. Coming or going.

Mr. HEYMAN. We cover all departing air and sea ports. We capture all biographic information. We capture both biographic and biometric on all entry to the United States.

Mr. SCOTT. What does "biographic" mean? What do you mean by "biographic"?

Mr. HEYMAN. Biographic, like a travel document, a visa, a passport. The passports these days are now secure passports so that you can scan them in with a machine and take the human out of the equation and have the biographic information much more accurate.

Mr. SCOTT. And biometric, are you talking about fingerprints and iris? Anything else?

Mr. HEYMAN. On biometric, we are looking at———

Mr. SCOTT. Facial?

Mr. HEYMAN [continuing]. Facial, vascular. Vascular is your blood capillary networks that are unique. They are like a fingerprint. But principally, the key ones are iris, fingerprints, and facial recognition. People should realize, though, that if we do decide to go with something other than fingerprints at the exit, that will have a significant impact on costs on entry because you will not have—remember, we do fingerprinting on entry, and if we are deploying the new technologies on exit, we will have to go back to State Department and consular affairs around the world where they capture fingerprints to do another capture for making sure that we link those biometrics using the new technology.

Mr. GOODLATTE. The Chair thanks the gentleman.

Before the Chair recognizes the gentleman from Texas, actually let me recognize him and ask him if he would yield to me for a second, and then ask him to come and take the Chair so that I can attend to a meeting outside. But if you would yield to me———

Mr. SMITH OF TEXAS. I would be happy to yield to the Chairman.

Mr. GOODLATTE. I just want to set the record straight on a couple of things. First of all, and I am sorry that the Ranking Member is not here because he mentioned one piece of legislation that has been introduced in the House and said that we had not held a

hearing on that particular piece of legislation. But I want the record to be very clear that we did hold a hearing in this Committee, the full Committee, on the Senate immigration bill, and the House bill is based upon—in fact, I think it is virtually identical to the Senate bill, with the exception of the addition of provisions from one bill passed out of the House Homeland Security Committee, which is not the jurisdiction of this Committee, with the exception of some parts of it, including the entry-exit visa system, which we share jurisdiction, and of course we are holding a hearing on that today. So I want to be very clear on that issue.

Secondly, I just want to note for the record that what we are talking about here are foreign nationals that we need to keep track of. So while it is commendable that Mr. Shahzad was apprehended on the runway in that particular case, being a United States citizen, that is a different system and a different issue than it is for us to know of the several million people who are illegally present in the United States, who they are, where they are, and why they are remaining here after their visas have expired, and a biometric entry-exit system will help to solve that problem and assure that we are more comprehensively addressing the problem of people who are unlawfully present in the United States than what is currently being done by the Department, and we encourage their continued work.

But it is far from complete and far from a situation where we could say that we would not be making the same mistake we made in 1986 when, on the promise of a lot of new enforcement measures, we granted an easy pathway to citizenship to nearly 3 million people and then found that those enforcement measures never took effect. In fact, in spite of additional legislative efforts over that period of time, we still do not have those appropriate enforcement measures, and therefore this hearing is about how to avoid the problem that was created by the 1986 law and never addressed.

And now I will ask the gentleman to come here and take the Chair and use his time.

Okay, Mr. Bachus is going to take the Chair, and he will yield to the gentleman from Texas.

Mr. SMITH OF TEXAS. Okay. Thank you, Mr. Chairman. I will proceed with my questions.

Mr. Albers, let me direct my next question to you. Thank you for your very expert testimony. This goes to the subject of the experience of airports in other parts of the world, and you have some knowledge of that. Other airports around the world have introduced the biometric entry-exit system. Have they incurred any substantial delays as a result of the biometric entry-exit system?

Mr. ALBERS. The answer is not to my knowledge. If you look at, for example, our program called the Global Entry, that is a biometrically-enabled program that speeds people back into the country. So we believe that with the introduction of multimodal biometrics which could be grabbed even faster than a fingerprint, you could actually expedite the process for people with that.

Mr. SMITH OF TEXAS. You know what also occurs to me, thinking about vehicular traffic where you had those lines, you could also have an agent just walking down with a handheld device and speeding up the process there as well.

Mr. ALBERS. That is actually a very good point. Fingerprints still require, for the most part, the people to put their fingers down on a sensor. Face recognition and iris recognition does not require that. Our company and a number of companies are doing face recognition on iOS devices or Android devices now so you can do face recognition.

Mr. SMITH OF TEXAS. Oh, that's right.

Mr. ALBERS. I think of the restaurants that walk up and down using a device like this now to check people in. That kind of thing could certainly be done at an airport when there is a queue to start expediting people like that.

Mr. SMITH OF TEXAS. Okay. Thank you.

Let me go to another subject, biograhpics. Both you and Ms. Wood have testified to the great disadvantage of relying upon biographics. You both agreed that it might generate a high incidence of fraud, among other things. Ms. Wood actually said it was a threat and a danger to Americans to have that kind of entry-exit system.

I don't know if you want to elaborate on it or not. You went into some detail. But the point is, I think, biometrics is far superior to biographics.

Ms. Wood, do you want to comment on that?

Ms. WOOD. Certainly. I think law enforcement needs every tool at its disposal to identify those who are trying to harm the United States. I want to just clarify with respect to the Times Square bomber, I was speaking of just how individuals evade biographic data. Certainly, he would not be covered under an exit program because that is for foreign nationals.

I think it is important, as the criminal organizations become more sophisticated and the cost of technology goes down, the Department continue to evolve and look to see how can they use the new technology. I think DHS has actually made a lot of progress. If you think about where we were when the Department was formed, first two fingerprints, then 10, then working along, I think the time is now to look at all these new advances in technology and see what we can do, and I think our law enforcement agencies need this.

Mr. SMITH OF TEXAS. Okay. Thank you, Ms. Wood.

Let me go to Mr. Heyman and address a couple of questions to you real quickly. By the way, I was at the homeland security hearing on this same subject a few weeks ago, and you were not the Department of Homeland Security witness, so don't take this personally, but it was a rare occurrence for me to hear the GAO actually being critical of DHS for not making a good-faith effort to implement more entry-exit systems more quickly. In fact, the Government Accounting Office said that I think DHS could implement them about three times as fast as the testimony we heard back then. You don't need to comment on it except that I think it can be expedited.

If I understood you correctly, though, a few minutes ago, you said that the Administration was actually identifying a fair number of visa overstayers, and if so, it would be roughly 5 million people in the country who are visa overstayers. What percentage of those individuals can you now identify?

Mr. HEYMAN. So the changes that we put in place over the last two-and-a-half years have allowed us to do a near-real-time, if not real-time overstay identification tracking and sanctioning for enforcement. So on a daily basis, we are sending to the field, to our ICE enforcement officers———

Mr. SMITH OF TEXAS. Okay, but my question is what percentage of the roughly 5 million people who are overstayers are you able to identify today?

Mr. HEYMAN. We spent the last 2 years looking at the overstay backlog. After going through those 2 years ago, we are now current on a daily basis———

Mr. SMITH OF TEXAS. If you won't give me a percentage, can you give me a number?

Mr. HEYMAN. Well, 100 percent currently. We are 100 percent currently able to identify overstays on a daily basis.

Mr. SMITH OF TEXAS. Again, of the 5 million people in the country who are overstayers, what number, what percentage can you identify?

Mr. HEYMAN. We have gone through all of them, all the ones that we went through———

Mr. SMITH OF TEXAS. So you know who those 5 million people are and where they are?

Mr. HEYMAN. 1.6 million we have gone through. Over half of those have left the country. Another third of those, I believe, were change of status, and———

Mr. SMITH OF TEXAS. So you are saying that of the 5 million, you can identify 1.6 million of the 5 million? Is that what you are saying?

Mr. HEYMAN. We have gone through the 1.6 million overstay backlog 2 years ago, yes.

Mr. SMITH OF TEXAS. Right, and you know who they are, where they are, and their status.

Mr. HEYMAN. There are a few that we do not know where they are.

Mr. SMITH OF TEXAS. So roughly a third of the people in the country who are overstayers you can identify.

Mr. HEYMAN. No. We have gone through all of them. We know who all of them are now.

Mr. SMITH OF TEXAS. I don't———

Mr. HEYMAN. The overstays backlog, the———

Mr. SMITH OF TEXAS. I don't want to go over my time, but I don't think we are talking about the same thing.

Mr. HEYMAN. Maybe not. I am sorry, sir.

Mr. SMITH OF TEXAS. I am sorry. Okay, my time has expired. But it sounds to me like, at most, the figure would maybe be a third of the people who are in the country you know who they are, where they are, and their status, about 1.6 million.

Okay, I will let others explore that. Thank you.

Mr. HEYMAN. Sorry, Congressman.

Mr. BACHUS [presiding]. Thank you.

Ms. Lofgren is recognized for 5 minutes for questions.

Ms. LOFGREN. Thank you. I do think that this has been a helpful hearing. The testimony you have just given, that you can actually for 100 percent you have identified who has left, who hasn't left,

who is adjusting legally under some other provision of law and identified who is a problem. Is that what your testimony is, sir?

Mr. HEYMAN. So, yes. On a daily basis, we are now able to identify who has overstayed. Now, there are in-country overstays and out-of-country overstays. What we send to the field is the folks who we believe are in-country overstays who are national security and public safety risks, and we go after those folks.

Ms. LOFGREN. Okay. I really don't have a lot of patience with the airline industry's resistance to this. I mean, I know that they have not been celebrating the idea of a biometric exit, and I just think that—I am just not sympathetic with that. We need to have that, but I agree that we need to do tests. I mean, I remember how much money we spent on SBInet, a technology that never worked. I think it would make a lot of sense to do some tests before we lay out that kind of cash to make sure that what we are pursuing actually will get the job done, and I hope that we learned a lesson from the SBInet catastrophe.

Having said that, it is clear that doing something at the TSA line is not going to work, because you can go through the TSA line and then you can leave. So you really have to have some technology deployed at every single gate in every airport eventually, and it has to be something that we can afford to do so you can't get on the plane and leave unless you have done that. Is that really what you are looking at, sir?

Mr. HEYMAN. The airports, I don't think you can do every airport, just the ones with international departures.

Ms. LOFGREN. Of course, yes. I mean, it wouldn't make sense if it———

Mr. HEYMAN. But, yes, on the jetway where people are actually departing, that is the most likely place we will do it.

Ms. LOFGREN. I have always believed, based on the testimony we have received not only in this Committee but during my 10 years of service on the Homeland Security Committee, that the major obstacle is at our land borders. Right now, we have backups at the southern border. I mean, people trying to come in and leave, it can take hours and hours, half a day. We want to have a safe country, but we also want to have commerce that works. I mean, Mexico is one of our biggest trading partners, and you have a very important economic connection between our two countries.

It was suggested in Mr. Albers' testimony that we have face and iris scans, and I would love to be able to see that. Have you analyzed that proposal, what the impact would be in terms of delay at the border of people leaving?

Mr. HEYMAN. There were a couple of pilots that were done at the border but with—I believe it was with fingerprint technologies, and this was several years ago, and it was largely pedestrians.

Ms. LOFGREN. Right.

Mr. HEYMAN. So the answer is that the new technologies will need to be tested. But I do agree. I think the responsible thing to do is to get it working first in the air and sea environment and then look to land after you have that fully functional.

Ms. LOFGREN. Would you—I mean, I wouldn't ask for a commitment today, but would you take a look at the potential for piloting the kind of technology that Mr. Albers has talked about in terms

of facial recognition or iris scan at the border and see if it actually aggravates the delay that we are seeing?

Mr. HEYMAN. So you definitely need a concept of operations, how is that going to work. An iris scan, you need somebody to get out and actually do that. So you can't do it remotely.

Ms. LOFGREN. But facial recognition would be different.

Mr. HEYMAN. Facial recognition you can do and stand off some distance. As I said, the impact of what you do on exit will affect what you do on entry.

Ms. LOFGREN. Right.

Mr. HEYMAN. Or if you are looking at new technologies, you will have to be mindful of the costs that will go into entry.

Ms. LOFGREN. Right. But this will be costly, and if we don't appropriate the funds, we can complain all we want but we should really be looking in the mirror about who is responsible.

Mr. HEYMAN. Right. What we have done on the northern border I think merits great attention because it really does allow us for the first time—and people didn't think we would be able to do this—to actually get the data from our Canadian partners and have now full———

Ms. LOFGREN. Right, every exit from us is an entry to them.

Mr. HEYMAN. Right, and you will have the visibility in the northern border in full next summer.

Ms. LOFGREN. A final question. If we were to deploy in a ubiquitous manner facial recognition technology at the border, for example, I want to know what thought we have given to the privacy rights of Americans, whose data—and we have had a bipartisan concern about NSA surveillance, the government getting all the information about Americans. What standards would we need to be thinking about in terms of the privacy rights of U.S. persons with that kind of technology deployment?

Mr. HEYMAN. That is absolutely the right question. You want to do that actually with all technologies, wherever you deploy—air, land, or sea.

Ms. LOFGREN. I see my time has expired.

Mr. BACHUS. Mr. Heyman, you got your Bachelor's degree in Boston at Brandeis? Are you a Boston Celtics fan?

Mr. HEYMAN. Sir, I grew up in Washington, D.C. I am a Washington Wizards fan. But you get converted when you are up there for a few years. The Celtics are great.

Mr. BACHUS. Have you ever heard of M.L. Carr?

Mr. HEYMAN. Absolutely, great ball handler.

Mr. BACHUS. He is a great—he played for the Pistons, played for Boston Celtics. He was coach and general manger of the Boston Celtics and really brought it back. I happen to be a friend of his, and he has written a little book called "Winning Through Persistence" which is 49 pages long, and it is one of the best books on leadership.

One of his best quotes—and I looked up some quotes. This is Homeland Security, not directed at you personally. But Benjamin Franklin said, "He did as good for making excuses as is seldom good for anything else." George Washington Carver: "Ninety-nine percent of the failures come from people who have had the habit

of making excuses." George Washington: "It is better to offer no excuse than a bad one."

I think you have been put in a bad situation by having to testify about why we hadn't put a biometric exit system as a country on our border. So I don't—to me, you have an impossible job of trying to explain why we don't even have one now.

But M.L. Carr I think has the greatest quote on excuses. He said, "I don't accept excuses." And I think after 17 years, that is what Congress ought to say to those that have been charged by numerous statutes to implement a biometric system.

And let me just read one paragraph, and this is Ms. Kephart's testimony on page 6. I think we don't need to know anything else. "The results of a 2009 DHS evaluation report that tested biometric exit solutions at two large U.S. international airports is further evidence that a biometric exit is feasible now. Moreover, at least 14 Nations have or are deploying biometric border solutions at airports, and 3 Nations have or are deploying biometric guest worker tracking programs. Some Nations have had biometric solutions at all air, land and sea ports for a decade, and superb results in data integrity and border control."

And we have heard Nigeria, Indonesia. Mr. Albers' testimony, I mean, he lays out how you do it. The technology is better than it has ever been. It is cheaper than it has ever been.

Mr. Heyman?

Mr. HEYMAN. Sir, I appreciate the opportunity to comment. I was a Larry Byrd fan, not so much an M.L. Carr fan.

Mr. BACHUS. And they played on the same team.

Mr. HEYMAN. Yes, they played on the same team.

Look, persistence does matter. You are right to be frustrated with 17 years of predecessors of mine standing here and testifying for you.

Mr. BACHUS. Oh, and I am not laying the blame. Nothing personal.

Mr. HEYMAN. I don't take it personally, sir. I just want to say that despite 17 years of effort and not getting it done, we believe we are getting it done today. And rather than waiting for the funding or for the feasibility of biometric to be workable, in 2010 we moved forward with enhancing the exit system so we have a full functioning system today. You need that as a foundation to add in the biometrics. So we have that as a prerequisite for getting biometric exit, and we are moving ahead today, as I said, with a test facility that will allow us to test concepts of operations.

I just want to make one correction. I looked into the international requirements here, and you mentioned Nigeria. Nigeria is only———

Mr. BACHUS. I don't want to—Nigeria is probably not who I want to compare us to. Ten years ago we toured—in fact, I think Mr. King was on it with me. But we toured Europe, and Germany demonstrated a system 10 years ago, and some of the Scandinavian countries.

Mr. HEYMAN. But these biometric entry-exit systems are largely biometric entry systems. The exit piece of it, no one has done anything like what we are contemplating doing here in the United States. The rare exceptions of exit are based upon the notion that

in all likelihood the government owns the airport or they designed and built it to do exit system, which we haven't done.

Mr. BACHUS. Sure. Yes, I understand. But if I were M.L. Carr, I would just say no more excuses, and I am not talking about you. I am talking about all of us. Everyone knows I very much want an immigration bill and a comprehensive fix, but this is one reason that the House is taking more time, because people keep saying I am not sure we are going to get border security, I am not sure, and this is Exhibit 1. GAO says we can do it in 18 months. But again, I appreciate your candor, I really do, and you have just been put in an impossible spot.

Ms. Kephart, real quickly.

Ms. KEPHART. Yes, let me respond to the fact that there are not exit systems deployed around the world. The UAE has been on the forefront of this issue since 2004. Let me read you from the last page of my testimony. It is page 57. This shows a picture of Qatar right now. This particular installation that they show in this picture dates to 2011. "Every point of entry in the State of Qatar relies on an iris system enabling entry and exit at every point of entry, 80 lanes of air, land and sea. Every person entering and leaving the state uses the system. More importantly, processing times for the individuals is less than 5 seconds per person." I think that hits on facilitation, that hits on location if you look at the photograph, and that hits feasibility, and that hits ability. So I just wanted to add that in.

Mr. BACHUS. Thank you.

At this time, I recognize Ms. Judy Chu, the gentle lady from California, for 5 minutes.

Ms. CHU. Thank you, Mr. Chair.

I understand, Mr. Heyman, that we have an agreement with Canada to exchange entry records so that the land entries of one country serve as the exit records of the other. And we have 72 million travelers that are entering the U.S. through the border with Canada. And with this pilot program, that you were able to match 97.4 percent of records received from Canada to existing entry records.

How would you evaluate this program? It sounds successful. And could a similar agreement be done with Mexico?

Mr. HEYMAN. So most people have thought for years that maybe we could do air and sea but we would never be able to do the data exchange for any kind of exit tracking on our northern or southern borders. So the fact that we are able to do it is actually remarkable, and the fact that it is actually now over 98 percent matching is also exceptional.

This is a huge success, and that is why we are looking at trying to do something similar on our southern border and have begun conversations with the Mexican government as well.

Ms. CHU. And can you say how far along these talks are?

Mr. HEYMAN. We began those talks with the new Mexican administration, so they are in the beginning stages.

Ms. CHU. And are there any other countries that would be logical partners for this type of agreement?

Mr. HEYMAN. I mean, I guess if the whole world did that, you would have the system that you wanted, but I am not proposing

that. I think those two countries are the ones that you would want to do it, and then the rest you have air and sea capability that we are building in right now, which is what we are all talking about in terms of the biometric system.

Ms. CHU. Ms. Kephart, you were talking about the other Nations and what they are doing as far as implementing biometric systems, and I understand that there are 16 other Nations that are in the process of implementing biometric processing of foreign air travelers. Are there any lessons we can take away from their successful experiences?

Ms. KEPHART. Sure. I think, first of all, that it is feasible; second of all, that it doesn't slow down commerce; third of all, there is another uptick for this, which is that airline processing is starting to take place with biometrics as well. They are actually starting in some Nations and some airlines to use biometrics as the boarding pass to ease flow-through, to get rid of paper and lower the cost for the airlines, too.

So you are seeing a lower level of cost once it is implemented that helps everybody. And in some airports, for example, they are seeing more commerce in the jetways because people are spending less time on processing. For example, if we had something more biometric at TSA's security lines, imagine how much better that would be. We are talking about 5 to 20 seconds to gather very important information for immigration integrity, and we spend anywhere from 5 minutes to an hour in a TSA security line.

So I think when you make that balance and you look around the world, you see how efficient, how quick, how accurate. For example, in the UAE right now, that system has been in place since 2004. Two hundred and forty million irises are in that system. It takes 2 seconds to do a verification. That is amazing.

Ms. CHU. But my question is, why is it that these 16 other Nations are able to do it and we have taken all this time, 17 years? And, Mr. Heyman, I would like you to comment on that, too. Why is it that the other Nations were able to progress?

Ms. KEPHART. Well, I think in fairness to DHS, and Julie mentioned this earlier, the technology wasn't there 10 years ago to do this well and cost effectively. It just wasn't. But it is there now. We also had a lot of confusion because we had so much statutory language layered on top, and then in 2007 we put the onus on the air carriers when every other Nation in the world has the government do it, and the government just implemented as it wants. We have more bureaucracy here, and that is part of the problem too, and the statutory language is a little bit conflicting, and it needs to be streamlined.

Ms. CHU. Mr. Heyman?

Mr. HEYMAN. In the United States, we don't own the airports, the government doesn't have authority over the airports, and the infrastructure wasn't built for exit in mind. In new airports, particularly in countries that have the wealth to build new exit facilities, they can line it up, like we do on entry, and it makes it much more feasible and cost effective. In fact, if we had a system like that, we would be much more able to do that.

So I think in the rare instances where there are exit facilities internationally, and it is rare, it is because they probably had the resources and the ability to design the system from scratch.

Ms. CHU. Thank you. I yield back.

Mr. BACHUS. Thank you.

Mr. King is recognized for 5 minutes.

Mr. KING. Thank you, Mr. Chairman.

I want to thank the witnesses here. It has been really an interesting testimony, and the questions I intended to ask have moved along because you filled in a lot of blanks for me.

But I have this broad question that hasn't been addressed, and it has to do with if we could get this all done exactly perfectly with the technology that has been testified to, especially even within the dollar figures that we are talking about, maybe one-sixth of $3 billion and implement this, how wonderful it would be to actually have a moving spreadsheet calculation of the identification of everybody that came in, everybody that left, and the sum total would be the people in the United States of America. I haven't heard that said yet, but that was the philosophy behind the entry-exit system that we hoped to 1 day put in place.

Now, I just imagine that that can be done, and the testimony here tells me that it can. We have the technological ability to do that within a reasonable cost figure. In fact, it occurs to me that you just sell those 1.6 billion extra rounds of ammunition and we could easily fund this, Mr. Heyman, but that is just my little facetious remark today.

But if we put this all in place in this way and we still have an Administration that refuses to enforce the law, what is the point? I mean, I would like to get this implemented for the next president, but I have no hope that this president would utilize the ability to identify the people that overstayed their visas, let alone find a way to, I'll say, collect some of those names as people that come and go in our land ports.

I have stood at the ports of entry and watched as people will pull up, have their card swiped, see it show up on the screen and verify that they are who they say they are, drive into America, and an hour later the same car comes back, they wave and they drive out. That is going on millions and millions of times. We all know that.

But I look at the Border Patrol's nationwide illegal alien apprehensions that go back clear to 1925, and it just averaged the apprehensions at the border from 1980 until the beginning of the Obama administration. The average apprehensions Border Patrol number, 1,160,199 per year from 1980 until the Obama administration, who averages 431,111. So it is a number, just a little bit more than a third of the average apprehensions that we have had.

So I don't have hope that there is going to be enforcement. When I hear that the Gang of Eight's bill in the Senate is somehow going to help us and that we are working down the line of identification, tracking and sanctioning, the identification, I believe that your testimony there is fairly clear to me, Mr. Heyman. The tracking point is not. I don't think we can track them. I don't think we know where they are. And the sanctioning part, it is obvious, isn't taking place, because even the border interdictions are just a little more than a third of the average going clear back to 1980.

So this is a lot of exercise in what we might be able to do, but if we give the resources that Ms. Wood has asked for, we still have to have the will to implement them.

So I really wanted to turn my question over here to the gentleman, Mr. Albers, and ask this. I saw some facial recognition technology implemented that showed a man. He is actually a naturalized American citizen, an immigrant from Germany that had on his iPhone 355 facial recognition faces in his storage, and in that he was able to instantly use that for his security on his iPhone. If he would look at it, it would turn on in an instant. If he would look away from it, it would turn off in a couple of seconds. That kind of technology is available to us and priced reasonably.

So can you explain that to us? I mean, is the vision in your head how we might be able to set that all up and walk people through with that kind of instantaneous response? Can we build that spreadsheet so we know the net number and the identification of the people? And then I am going to ask Ms. Wood how we find them.

Mr. ALBERS. So let me answer the last question first. The answer is yes. So the spreadsheet part I think is relatively easy.

Let's step back a little bit, though, and talk about—and Mr. Heyman actually mentioned this. Biometrics only works if you have an enrollment image and then a match image. So right now we have inferior images in the system. We are not doing good face captures, and we are not doing iris captures at all. The technology has improved now so that there are devices about this size that will take a picture of a face and an iris in one click, will not take a whole lot of time. USCIS happens to be one of our customers, and we are talking to them about what if you wanted to add? They take actually pretty good quality pictures of a face; they don't do iris at all. But you could add that to the process when you bring people into USIS right now.

So to go back to your question, if you have quality images in and you have quality matches out, you will have very high rates of accuracy, and you can do it very, very quickly. Like I said, the accounting part is pretty easy. You could tell exactly how many people were in this country and were out.

Mr. KING. Thank you.

And, Ms. Wood, then how would we find them?

Ms. WOOD. Well, we would have individuals that are dedicated to this, more than 300 ICE agents that are actually focusing on this. If you think that in 2012 the agency only opened 2,800 investigations into overstay enforcement for kind of non-routine cases, that is not a lot, and only arrested 1,273 individuals, that is not very many. So ICE needs more resources either in HRI or ERO that are designed to do routine enforcement.

Mr. KING. And the will, and the will?

Ms. WOOD. And we have got to, then, do it right away. We can't let individuals overstay here by years where they build up a lot of equities, and then it causes a lot of difficulty. So we need to have more routine enforcement, information coming in very quickly to ICE and ERO, and that sort of investigation and action being taken routinely, and that would give folks an incentive to go home as well. If they know there is going to be enforcement, they would ac-

tually leave. Here, I think people know there is not going to be an enforcement. There is no incentive to leave the country if you overstay at this point.

Mr. KING. Nice word is "self-deport."

Can I ask unanimous consent that the gentleman can respond, Mr. Albers?

Mr. BACHUS. Yes.

Mr. ALBERS. Yes. I didn't want to denigrate my State Department customers. They actually take very high-quality pictures for visas.

Mr. KING. Thank you, Mr. Albers.

Thanks, Mr. Chairman. I yield back.

Mr. BACHUS. Thank you.

Our next Member just returned from a GQ screening, I guess, with the scarf and sunglasses. I wish folks could see that.

But are you next, Mr. Gutierrez? The gentleman from Illinois is recognized.

Mr. GUTIERREZ. Thank you very much, Mr. Chairman.

I think it is important to note what happens within the context of inaction on immigration. I have been in Congress for more than two decades, and we have debated the merits of the entry-exit system many, many times. This is not new. I support the implementation of effective entry-exit system and have included it in immigration bills that I have authored in the past.

Biometrics is important. You can do biometrics tomorrow. There is nothing in the law that says you cannot do biometrics. Now, we might have a debate about whether you should be forced to do biometrics, but there is nothing stopping us. Let's stop kidding ourselves. We are having a hearing about nothing, because nothing is going to happen until both sides of the aisle get together and get serious about comprehensive immigration reform.

So what? Wonderful testimony. We have heard it all before. Great. You want to have a poll here? All of us will agree with all four of you, biometrics is better. I bet you it will be unanimous, biometrics is better. So what? What have we accomplished here this morning? Absolutely nothing. Because what we do is we have—you all know, and I am sure if I asked you—well, what else could help?—you would say, well, if we had an eVerify system, that would help too because maybe they would leave quicker, because without an eVerify system, those just overstay their visas and work in this country. You would probably tell me, "You know, Luis, maybe if we had a worker system that had sufficient visas so that certain industries could have the workers that they need, like 2 million people that work in our agricultural industry every day, foreign hands picking everything that everyone testifying there and everyone on this side eats every day in this country."

Shame on us. Shame on us. And what do we do? We come here to discuss an entry-exit visa program. It will be unanimous, 435 to nothing. And you should do it at DHS. It is the right thing to do. That is not really the problem here. It is like we are going around the issue.

The issue is what do we do about the 11 million people that are already here, and how is it that we fix that in the future? I am for security. The first part of the bill that I introduced, the first four

paragraphs, Mr. Garcia was like, "Luis, have you gone security crazy?" Mr. Garcia just introduced a proposal that has security, security, security, security. But when do we get the compassionate part?

It seems to me, Mr. Chairman, that any good, sound, effective immigration policy is cohesive and it is comprehensive, and it needs many of the inter-working, interlocking parts in order to be effective. You can't do one and really be effective with the other or you overburden and overload the other part of the system.

Any good agent at the border—everybody says, well, we are not enforcing. Well, sure, because we put 20,000 Border Patrol agents, because that is the smart thing to do. But wait, stop. Let's just throw 20,000 more Border Patrol agents, even though we have heard here that 40 percent of our problem has 300 people. But we are going to put 20,000.

And what does the White House say? "I'll sign that bill." What does everybody say? "That is a great bill." Really? That is a great bill that militarizes the border between the United States and Mexico. That is a good bill, when we already heard the 40 percent.

Look, I have to tell the Republican majority, Obama is not here. I looked. He doesn't have a seat in the Judiciary Committee. Last time I checked, he is not one of the 435 members of the House. Forget about it. I don't want an Obama solution. I also don't want a Tea Party solution. I want an American solution to our broken immigration system. We can have all the hearings we want, but shame on us, on everybody for not doing the work.

Now, look, I know everybody says "I will admit it, we could have done more as Democrats." But you know something? I am the first one to say that. I said that repeatedly. So what are you going to do? Follow in the tradition of do nothing on the issue? "Oh, you guys didn't do anything, so now"—you are the majority now. You are the majority. But we had a referendum on this issue.

And here is what I am going to end with. Look, the political consequences of inaction on this issue are going to be grave to the Republican Party. I know many of you don't believe it, but mark my words, it will be grave. If you care about regulatory issues, if you care about monetary issues, if you care about any other issue, you had better take this issue off the table, because until you do, you will never see a presidency of the United States, you will never gain the Senate again, and you will see the fight of a lifetime over the House of Representatives on the issue of immigration.

I know it will come as a surprise to many. But remember—and I just ask for 30 seconds more.

Mr. BACHUS. The gentleman is yielded an additional 15 seconds.

Mr. GUTIERREZ. Thank you. And I will remind everybody, November 6th of last year there was a referendum. Mitt Romney said self-deportation, let's expand S.B. 1070, and he said he would veto the Dream Act. He lost by 5 million votes. Everybody was surprised, all of those people coming out to vote on the issue of immigration. Well, they came out to vote, and they are not going anywhere. Speaker Boehner can't have breakfast without people coming.

Mr. BACHUS. The gentleman is granted another 10 seconds.

Mr. GUTIERREZ. We will not go away. We will persist in this issue.

Mr. BACHUS. Thank you.

Mr. GUTIERREZ. Thank you very much, Mr. Chairman.

Mr. BACHUS. Thank you.

Let me briefly respond just by saying this to the gentleman. He has mentioned President Obama and Mitt Romney. Let me just put the two of those together.

Mitt Romney. I talked about excuses earlier. The hearing is about implementation of an entry-exit system still waiting after all these years. That is what the hearing is about. And Mitt Romney said leadership is about taking responsibility, not making excuses, and I think that is a message that the President ought to hear and this Congress ought to hear.

And a part of immigration reform is security. In fact, it not only has to do with immigration, it has to do with terrorism. This is why a lot of the testimony today comes from the National Commission on Terrorist Attacks. That is another reason that we don't need excuses, we need leadership.

Mr. Chaffetz is recognized for 5 minutes.

Mr. CHAFFETZ. I thank the Chairman.

And the sad reality for the Democrats, who want to try to portray that they have the high moral ground on this, is the Democrats controlled the House, the Senate, and the presidency, and they did nothing. I sat on the Subcommittee here. I campaigned on this issue. I want to be part of the solution, not the problem. But the reality is, when the Democrats had all three levers of power, they did nothing, nothing. We didn't even consider in the Subcommittee a single bill.

Mr. GARCIA. If the gentleman would yield.

Mr. CHAFFETZ. No, I won't, not yet.

Go ahead, go ahead, I will yield to you.

Mr. BACHUS. Mr. Garcia is recognized.

Mr. GARCIA. You know, we can keep looking to the past, Mr. Chaffetz. We can keep looking to the past, and there will not be a solution.

Mr. CHAFFETZ. Reclaiming my time, I accept your———

Mr. GARCIA. Will you let me finish?

Mr. CHAFFETZ. No, I would rather not. Reclaiming my time.

Mr. GARCIA. Absolutely.

Mr. CHAFFETZ. You made your point, you can keep looking to the past. Well, you want to blame us. We have actually taken action in this Committee, and shame on the United States Senate.

Now, I know the gentleman is new, but let's remember that when Republicans took control of the House, because the point was made in the previous questions and statements that Republicans will bear all the brunt of the political ramifications, let's remember it was this House of Representatives in a bill that I sponsored and had broad bipartisan support, including the gentleman from Illinois, the gentlewoman from California and others, we passed a bill that would have helped hundreds of thousands of people. It lifted the per-country caps on family-based visas from 7 percent to 15 percent.

This would have had a real effect. And guess what? The Senate, controlled by the Democrats, with no assistance from the White House, did nothing about it. We had almost 390 votes in the House of Representatives. It doesn't get much better than that, to have that many people supporting that bill, and it went nowhere in the Democrat-controlled, Harry Reid Senate.

Mr. GUTIERREZ. Will the gentleman yield to me?

Mr. CHAFFETZ. I will yield to the gentleman from Illinois.

Mr. GUTIERREZ. Thank you so much, Mr. Chaffetz.

Number one, I just want to say this. There are no senators in this room and on this panel. The President is not here in this room. I think you know, and I can say this to Mr. Labrador, and I can say this to Mr. Bachus, I can say it to all of you, you are all my friends. Let's work it out. That is all I am saying. Let's sit down, and let's not say we can't do anything. That is all I am saying. I know you are of good faith. I just want to work toward a solution, please.

Mr. CHAFFETZ. Reclaiming my time.

Mr. GUTIERREZ. Thank you.

Mr. CHAFFETZ. To continue to make the case that it is only the Republicans in the House that are holding back the problem is not accurate. The Democrats could have brought up that bill last term, last term. Granted, there are no senators in here, but let us be united in saying that the United States Senate is the problem, that Harry Reid refusing to bring up that bill is a problem.

There are hundreds of thousands of people who didn't get relief that we offered out of the House, and we did so in a bipartisan way.

So let the record reflect, Mr. Chairman, it is not merely House Republicans, as some would want to purport to say. We actually took action because the first 2 years, at least that I was here, the first 2 years under this President, when the Democrats had the House, the Senate, and the presidency, they did zero, and I do appreciate the sincerity and the willingness, particularly of the gentleman from Illinois, to work across the aisle, and I hope he understands that while we, me personally, do not agree on 100 percent of the issues, we probably agree on the majority of the issues.

You are, in part, making the case that I believe that we ought to take an incremental approach. And what is terribly frustrating is that, as the gentleman from Illinois said, we are unanimous in the idea that we need this entry-exit program. It is the law of the United States of America. It is the law, and yet it hasn't been done by both a Democrat and Republican administration.

So let me try to get at least one question in for Ms. Kephart here. The estimate originally was some $3 billion that this was going to take to implement. Do you know how much has been spent so far? Do you have any idea how much it would cost to do it now?

Ms. KEPHART. To do it now, my estimate, after working with some of the folks that worked on the 2009 successful US VISIT pilot, is that it would be about $400 to $600 million, not including the manpower costs, which I think could be pretty minimal considering the technology possibilities today. The range in cost is wide because of the biometric solutions that are available.

Mr. CHAFFETZ. And given that we have something like a $3.7 trillion budget, Mr. Albers, we are going to run out of time here, but I would appreciate perhaps in follow-up understanding a little bit about multimodal biometrics, what that means, what are its implications. Perhaps you can give us a quick answer to that before we run out of time.

Mr. ALBERS. So the reason I make the point is because of all the databases that are being built with the FBI and the State Department that include multimodal—face, finger, and iris. So to do an effective exit program, you would like to be able to get those people upon entry when they enroll, find out if they are in any of those databases, are they bad guys from Iraq or Afghanistan, and then when they exit the country you know they are going, and iris and face are very, very fast in terms of the type of time it takes to capture them and hit the database against them.

Mr. CHAFFETZ. Thank you. I yield back.

Mr. BACHUS. Thank you. And for the record, I said that the hearing, when I said it was about the implementation of an entry-exit system, still waiting after all these years, I quoted counsel for the National Commission on Terrorist Attacks, Ms. Kephart. But it is important to know that it is actually the National Commission on Terrorist Attacks Upon the United States. We shouldn't leave that out. We are talking about terrorist attacks on the United States, something that 17 years ago we said was necessary for the security of each and every one of our constituents and citizens.

Mr. Garcia is recognized for 5 minutes.

Mr. GARCIA. Mr. Chairman, first I want to point out your excellent fashion sense on pointing out my scarf. I greatly appreciate that.

Mr. BACHUS. The sunglasses also———

Mr. GARCIA. They also helped. Thank you, sir.

When I speak, I speak to the broader point here. It is time we stopped pretending to fix our broken immigration system. We are sitting here rearranging the deck chairs on the Titanic. Eleven million people are in our country without documentation; we have done nothing. The Senate made historic progress, finally reforming our immigration system. And you are right, they have made mistakes in the past, and they hadn't moved. But we are not there; we are here. Instead of building on that progress, this Committee has passed four useless bills with no chance of going anywhere.

My hometown is a gateway to Latin American travel. I gravely understand the importance of this issue. But it is only part of the problem. H.R. 15 provides comprehensive reform while mandating the establishment of a mandatory exit system. But whether we consider my bill or other legislation, it is time to stop talking and start doing.

We keep hearing that legislation is coming. First we heard that it was a top priority for this Committee. Then we were told that we would see legislation in October. Now it is sometime next year. Unfortunately, we hear too much, and it is all talk and no action.

Today, from the Speaker, we hear we have no intention of ever going to conference on the Senate bill. Well, Mr. Speaker, this is how you make legislation. It is an essential part of what we do. You go to conference. What is our bill? What is it we are going to

put forward? More than enough Members of the House understand the benefits of immigration and understand that it is necessary for our Nation's prosperity, and understand that it is what we will do inevitably. In the meantime, we fail.

But with every day that passes, this problem gets bigger. The consequences of inaction become more costly to our economy, to our country, to our people. This body needs to stop hiding behind empty promises and start doing the job we were sent here to do. We have been given an unprecedented opportunity. Now is the time to pass immigration reform, and we can do the biometrics. But it has to be part of a bigger solution.

And I understand the other side's frustration with this. Negotiations are always tough. You are in power. You have a lot of things pressing on you. But this is something that will not wait. The time is now. The moment is now. You have our attention. You have the world's attention.

The Senate passed a bill. It wasn't the bill I would have passed, but they passed a bill. The President of the United States said he would sign a bill. It wouldn't be what I would want to sign if I was president, but you have his attention. Now the ball is in our court. The time to act is now.

And, Mr. Chairman, I point out particularly that you have been tremendously generous on this issue, and I know that you have been trying to work with all of us on this, and I also appreciate my colleagues on the other side because I know I have called, cajoled, perhaps even harassed a few of you to try to get you to join on H.R. 15. We need to go to conference, gentlemen and ladies. We need to find a solution.

Mr. Chairman, I yield back the balance of my time.

Mr. BACHUS. Thank you. Let me say this. Members on both sides are frustrated, because we do know that we have a broken immigration system and it is not fair to our citizens, it is not fair to the 12 million residents who are here and have been here for sometimes decades. Mr. Labrador has worked very hard on this, Mr. Chaffetz, and part of our frustration is inaction, and part of that inaction is that we don't have an entry-exit biometric system, although 30 other countries in the world do.

We are the can-do Nation. We are the leader of the free world. And that causes frustration. But we also know that we are not going to have—and Kevin McCarthy said yesterday that we are going to address immigration reform. It would be on our agenda—that was my understanding—early next year. We only have 12 legislative days left. But it is a priority for many of us.

At this time, I would recognize Mr. Marino, the gentleman from Pennsylvania.

Mr. MARINO. Thank you, Chairman.

I just came out of a hearing over at Foreign Affairs concerning terrorism, and although I am a major supporter of getting something done on immigration—I have been working with my colleague, Mr. Labrador, on some language that we have been discussing, reaching across the aisle, working with my colleagues over there—I am a little frustrated today with the pointing of the fingers and saying we are not going to talk about this, but we talk about it.

I want to look at this from specifically why we are here from a technical aspect, if I could maybe get us back on track, perhaps, and I have several questions. I am not going to ask a question of any one individual, but if you feel like you can respond to this, which I am sure you can, please do.

The biometrics, we see it all over the place. Go to Disney World, put my card in, put my finger in, hey, that is Tom Marino, that is his card. Unlock my front door, lock my front door, start my car, the whole nine yards. I know much of this has been achieved over the last 10 years because we didn't have the technology beforehand. We do have the technology now, and I think it is getting better by the week, actually. I know my kids, they are a prime example of it. Every time they get an iPad or an iPod or an iPhone, it is 6 weeks later, "Dad, a new one came out, I want to get another one." I say, no, I am sorry, we cannot afford this.

So given the fact that I will be the first one to admit that we need to fund this—you cannot do the work that has to be done without the proper funding—succinctly, where do we go from here? What is the next step, and what do we need to do to get this moving and get it moving quickly? Because I don't want to be here next year or 2 years later talking about the same thing. I get very frustrated. I am a prosecutor, 18 years a prosecutor, and I do not like to wait for anything. My wife can testify to that. So, please.

Mr. HEYMAN. Congressman, I will be happy to take that question, and I appreciate the opportunity.

We all, I think, agree that the technology has evolved over the last several years and provides great opportunity for us to advance the biometric component of our entry-exit system. What is needed is to identify what the concept of operations is, how will you use it. You have national security law enforcement and the interests of the traveling public at hand, and you need to figure out where do you deploy that to best accomplish all of those goals.

If you deploy it too early in the system at the TSA checkpoint, you have a problem that people can enter the system and exit the system without actually departing the United States. Therefore, you look at the gateway or the jetway where they are actually leaving onto the plane, and so you have that concept which needs to be identified, and the technology needs to be evaluated for the environment that it is in and for all the circumstances.

We are about to do that right now. We are standing up a test facility that will be operational at the beginning of next year, and we will be looking at a number of technologies and how you use them, what is the most cost-effective way, the fastest throughput, ease of use, all of those things that need to be evaluated. We will be doing that beginning next year. Once that concept of operations is evaluated and you deselect to what is the best one, you deploy those best solutions to the field, pilot them in the field, and then subsequent to that you begin to deploy the technology.

Mr. MARINO. Anyone else? Anyone else want to address that? Please.

Ms. KEPHART. Yes, please. I think there is another piece of this. David, of course, on the operational side has to deal with the concept of operations, which is a little bit complicated but totally doable, I believe. But there is another piece of it which I have said

before but I will repeat. We have to provide a means to fund it. That is absolutely essential, and I think you can do that through authorization of fees.

The tourism industry right now, Brand USA, gets $10 out of $14 for the visa waiver fee. You add another $10 to that, I think that is more than fair, and you can pay for a lot of this. You can even increase it more, or you could appropriate it. Either way. But I think in a budget situation we are in now, it would be an authorization for fees.

The other piece of it is you need to make sure the airports are a stakeholder in statutory law. They are not considered a stakeholder right now, and DHS has a harder time doing its job on exit because the airports are not a stakeholder. And then you have to make sure that the air carriers are not in the equation anymore because CBP, under the 2013 Homeland Security Appropriations Act, has the ability to do that, but air carriers are still in the law carrying the burden of implementation.

So those things. I think statutorily this body, this legislative body can do those things.

Mr. MARINO. Well, we need that information from you people. I know when we get elected to Congress, we get taller, smarter and better looking, but we don't have the answers, all the answers, and we need these technical answers from you folks. So I appreciate any input that you can give us. You can call my office. I am on Homeland Security as well, and this is an issue that I am quite focused on.

So, thank you very much. I yield back.

Mr. LABRADOR [presiding]. The gentleman's time has expired. I am glad that is working for you. It hasn't worked for all of us, that we are getting taller and better looking.

The gentlewoman from Texas.

Ms. JACKSON LEE. I thank the distinguished gentleman.

Let me thank the witnesses and indicate that simultaneous to this hearing was a hearing in Homeland Security, of which I am a Member. So I thank you for your indulgence.

Let me welcome Ms. Wood. I have seen you appear before this Committee in many years past as I was on this Committee, and I am glad to see you back, and I know that you have some insight that is very important.

If I could reflect for a moment on using a metaphor or a rhetorical question that Martin King used to ask, "If not now, then when? How long? How long?" I think, as we look at the very serious questions of exit and entry, and in actuality an issue that the Homeland Security Committee has addressed and introduced a bill that I am an original co-sponsor of and helped work on, H.R. 3141, which is the Biometric Exit Improvement Act of 2013, which puts it right to the Department of Homeland Security to enact in 180 days, to submit to Congress a biometric exit system, we have studied this exclusively and extensively, and I am grateful for the collaboration of the House Judiciary Committee.

But I know that all of us take our work seriously. So we have a bill ready to be marked up. We have also introduced H.R. 1417 that has been passed through the House Homeland Security Committee, a bipartisan bill that deals with a reasoned and reasonable

response to the security of our borders, northern and southern. I always make sure that I make mention of both northern and southern.

So let me ask the question to Mr. Heyman, who deals with policy issues. I know you are aware of these initiatives and aware that there are vigorous discussions in the Department on this concept of securing America, immigration reform, border security, and you have just heard me give the words, "If not now, then when, and how long?"

How much better would we be with a comprehensive approach, comprehensive immigration approach to this whole issue of knowing who is in the country, knowing who is entering the country, and knowing who is exiting the country?

Mr. HEYMAN. Thank you, Congresswoman, for the question. I would support comprehensive immigration reform as a better condition than we are in today. There is certainly no ability to move beyond where we are today absent legislation, but there is the prospect of a brighter future for the immigrant community, for border security, for our economic well-being with an immigration legislation that is passed.

In the context of knowing who is in the country, who is out of the country, we have made substantial progress on that with our entry-exit system that we have been enhancing over the last several years. The biometric portion of the exit process we have talked about extensively today. It is my view that Congress and the government needs to be smart about implementing it.

The hardest part is the land border. We need to be very prudent and make sure that it works in the air and sea environments first. That is a costly expense. It is going to be even more costly in land, so let's get it right first.

Ms. JACKSON LEE. Let's get land first?

Mr. HEYMAN. No. I am saying air and sea first, ma'am, air and sea first to make sure we get that right, and then we can take a look at land. We are doing some very innovative work on the land border which will allow us biographically to identify exits. That has been piloted with our Canadian partners, to great success. We are looking to do something similar on our southern border.

Ms. JACKSON LEE. Let me ask Ms. Wood, in terms of having been at ICE before, what is your assessment of being able to look at the biometrics in pieces, to be very honest with you, getting pieces done, and then putting the whole together?

And then also, having been in ICE and knowing that you have the internal enforcement, the value of having a comprehensive approach so you will know and ICE will have the documentation to know who should be detained and who should not, and be able to be effective in making sure we are detaining the people who will be here to do us harm?

Ms. WOOD. Thank you for that question. I think certainly ICE and all of law enforcement would take a piece-by-piece approach. Obviously, law enforcement wants biometrics, and it wants it not only at air and sea but also at land border. But I think any improvement in the process, and there have been improvements over the last few years, is very useful not only to ICE but to the JTPF and all of law enforcement.

I think it is critical, however, that ICE has enforcement resources and an enforcement mandate to enforce overstays at some level. So when we think about comprehensive immigration reform and making things different, having a system that works, we have to make sure that ICE has the resources to do routine enforcement going forward as well.

Ms. JACKSON LEE. May I just say this, put a question on the record? I thank you for your indulgence, Mr. Chairman.

I think you are absolutely right. Resources are necessary for enforcement, and I think that when I spoke piecemeal, I just want to correct the record. I want to give comfort to my friends on the other side of the aisle, that we need to pass something so that we can move forward. When I say "something," something constructive so that we can move forward on a comprehensive approach that is killing this country, killing America, killing those who are citizens and non-citizens who are desperate for some regular order to make this country the great country that it is.

Biometrics, we have a bill. It deals with land, and I believe we can work on the land piece and the border security piece out of Homeland Security, meaning legislation, and then be able to match it with a very effective, comprehensive immigration approach. And I would ask my colleagues not to stop the movement and the progress of getting somewhere to be able to stabilize, to work this system right and have a comprehensive understanding of who is in this country to help us and who is here to hurt us.

I hope that my good friend who is in the chair today will take up the cause and the banner for this Committee and the Speaker to move forward on comprehensive immigration reform. And if he only needs a piece of a bill, then move forward on 3141, a biometric bill from Homeland Security, or 1417, and we will be able to move forward on comprehensive immigration reform. We will be able to do it now.

Mr. LABRADOR. Thank you.

Ms. JACKSON LEE. I yield back, and I thank the gentleman from New York.

Mr. LABRADOR. The gentle lady's time has expired, and I yield myself 5 minutes.

I have been a little bit confused by some of the comments today, and I want to ask Ms. Kephart, you were obviously counsel to the Senate on Senate bill 744. Is that correct?

Ms. KEPHART. Yes.

Mr. LABRADOR. And I keep hearing that the only way to get biometrics done—I have heard this now several times—is to have comprehensive reform. That makes no sense to me.

Now, I want a comprehensive approach to immigration reform. I am here—I came to Congress specifically to fix the immigration system. But I am confused by the statement, and Mr. Heyman made it, a couple of other people have made it, that the only way to proceed forward on figuring out what to do about biometric entry-exit system is to have a comprehensive immigration reform plan. Does that make any sense to you?

Ms. KEPHART. Look, the immigration system is made up of many, many pieces. It is convoluted. It is complicated. Each piece has its

value. Each piece can be dealt with in its own comprehensive bubble. You don't need everything fixed at once.

This is a little different than the immigration reform that is sitting here before us because we already have eight statutes.

Mr. LABRADOR. Okay, let me stop you there. That is the question that I have. We have had statutes for 17 years on the books, right?

Ms. KEPHART. Mmm-hmm.

Mr. LABRADOR. We haven't done anything to fix this system. Now, I hear that we have done some things to make it better, but we haven't done what the law says. The law says that we need to have a biometric entry-exit system.

So the question that I have for all of you, I want to have immigration reform done. I have asked that we have triggers, and one of those triggers has to be a biometric entry-exit system.

How long would it take the United States to have a biometric entry-exit system at sea, land and air so we can have a trigger in place so we can have this comprehensive reform that some people are talking about?

Ms. KEPHART. If you went by the law that is on the books today and you put out requests for proposals tomorrow to industry and let them battle this out for a concept of operations, then I think you could have this very quickly. You could have it———

Mr. LABRADOR. And what is very quickly?

Ms. KEPHART. Well, if you look at Indonesia, they did a comprehensive rollout that did everything, watch-list vetting, person-centric system, everything, at their largest airport in 6 months' time.

Mr. LABRADOR. Mr. Albers?

Mr. ALBERS. If there were funding in place———

Mr. LABRADOR. Yes, and funding. We have to assume that, absolutely.

Mr. ALBERS. If there were funding in place and a contractual vehicle in place, we could do this in 18 months.

Mr. LABRADOR. Eighteen months.

Mr. ALBERS. So a part of that, the beginning, sometimes is the long part. So getting the funding and getting the contract———

Mr. LABRADOR. And you are talking total. If we decide tomorrow that we are going to pass reform and we are going to have a comprehensive strategy on immigration, but the trigger is that we have to have an entry-exit system, you are saying 18 months.

Mr. ALBERS. Eighteen months—we call it ARO, after receipt of order. So if an order is placed to start air and sea, we could do that in 18 months. I think land will take a little longer than that.

Mr. LABRADOR. How long?

Mr. ALBERS. Maybe within 2 years.

Mr. LABRADOR. Two years.

Ms. Wood?

Ms. WOOD. I would defer to DHS for the estimate, but I would note that getting the receipt of order is very difficult. And so making sure that DHS has sufficient procurement capabilities and moves out, and then actually moves on it. If we think about what has happened to integrated six towers, for example, or at CBP, there has not been a lot of activity. So I think making sure DHS

has enough resources, and then I would defer to David on the specific time period.

Mr. LABRADOR. Mr. Heyman?

Mr. HEYMAN. Thank you. There are a number of statutes on the table right now that we are trying to implement. We don't have the funding, as you said, and we don't have the concept of operations. So we are looking to have that within the next year. So by this time next year, the concept of operations will be going to the field for piloting. Sometime after that, perhaps the 18 months would kick in for deploying the technology to air and sea. I think the land is exceptionally hard to look at, and I would suggest that there are enough statutes out there that we don't need to tie this to comprehensive immigration reform. You should do the best you can with all the different challenges you have on that on its own.

Mr. LABRADOR. But we don't need to tie it to it. I actually think we already have the laws in place. But the problem is, even if you look at the Senate bill, the Senate bill just makes, again, the promise that we are going to have an entry-exit system. It doesn't solve the problem. And according to the estimates of the CBO, even under the Senate bill we are going to have over 10 million people here illegally in the next 10 to 15 years.

So it doesn't fix the problem that we have, and that is what I want to do. I want to fix the problem of illegal immigration. I want to fix it now, and I am not going to allow a bill to just pass so we can have this discussion again 10 or 15 years from now.

Mr. HEYMAN. So it is my view that an entry-exit system is not going to solve your overstay problem. It helps you identify it and it helps you to enforce it, but it is not going to solve your overstay problem. Only immigration reform will solve that.

Mr. LABRADOR. That doesn't make any sense. How will only immigration, when the CBO says that the Senate bill does not solve the immigration problem?

Mr. HEYMAN. Because what biometric does is it allows you to, with greater integrity, identify somebody who is leaving the country, and to use that to match it to an entry so that you can know whether they have overstayed or not.

Mr. LABRADOR. But Ms. Wood said if we have actually more enforcement, then we can solve that problem. Isn't that what you were saying, Ms. Wood?

Ms. WOOD. Yes, I think pairing exit with enforcement.

Mr. LABRADOR. With enforcement.

Ms. WOOD. You absolutely have to have enforcement. You can't just have exit without enforcement.

Mr. LABRADOR. And I agree with that.

Mr. HEYMAN. We are enforcing today. Number one, we sanction those who have overstayed the terms of their visa. Number two, we revoke those.

Mr. LABRADOR. So you think 1,300 investigations is sufficient?

Mr. HEYMAN. We obviously prioritize those in national security. No, some of those have been a 30-year drunken driving offense.

Mr. LABRADOR. Okay. My time has expired. I just think that to come here and say that comprehensive immigration reform is the answer when we are not even willing to do the enforcement, we are not even willing to use the technology, is actually misleading the

American public, and I am just really confused about that, and I hope that we can get this done. This has been on the books for 17 years. Let's get this done. Let's make it a trigger so we can do what all of us want, which is to actually fix this broken immigration system.

My time has expired. The gentleman from Nevada has 5 minutes.

Mr. JEFFRIES. From New York.

Mr. LABRADOR. I am sorry, from New York.

Mr. JEFFRIES. Okay. Let me just thank the witnesses for their testimony here today and for the information that has been shared.

I want to just direct for the moment a few questions to the Assistant Secretary, Mr. Heyman.

Is it fair to say that the fundamental purpose of a comprehensive entry-exit system is designed to help this country enforce our Nation's immigration laws and make sure that those who are leaving and entering comply with those laws?

Mr. HEYMAN. Yes.

Mr. JEFFRIES. So in that context of immigration enforcement, I am interested in exploring the notion of what information DHS either currently collects or intends to collect from permanent residents and United States citizens. Now, as it relates to air-based entries and exits, what information do you collect right now on either permanent residents or United States citizens who are leaving the country or entering the country via air?

Mr. HEYMAN. All individuals coming across our borders, we identify who is coming and going, and we retain that information.

Mr. JEFFRIES. Right. And what is the purpose of collecting and retaining that information as it relates to permanent residents who have lawful status here in the United States, not subject to revocation or expiration, or even more significantly United States citizens?

Mr. HEYMAN. Well, we do that for all of those individuals, whether it is a U.S. citizen or otherwise, who come across our borders. We do that for admissibility purposes for non-U.S. citizens, we do that for security reasons and law enforcement actions, and we do that for ensuring the safety and security of our country.

Mr. JEFFRIES. Safety and security as it relates to the entry and the exit of United States citizens?

Mr. HEYMAN. Well, United States citizens, if there is a warrant out for their arrest, if they are a convicted felon, if they are involved in any kind of felon activity, we would be interested in identifying them coming back across our border or leaving our country. It is an opportunity for law enforcement to act.

Mr. JEFFRIES. Okay. Now, once you determine that there is either no applicable outstanding warrant, this is not a felon, this is not anyone who is currently in violation of any United States statute, do you retain that information?

Mr. HEYMAN. There is a period of time when the data is retained, yes.

Mr. JEFFRIES. And what is the duration of the retention of that information?

Mr. HEYMAN. I would have to get back to you on that, sir.

Mr. JEFFRIES. Okay. But it is your testimony that subsequent to the expiration of that period of time of the retention of that information, the United States Government no longer stores it within its electronic database capabilities?

Mr. HEYMAN. Yes. For all of the databases that we have, there is a privacy impact analysis that is done and a statement that is issued for the public.

Mr. JEFFRIES. Okay. So it is my understanding also, dealing with land-based crossings, that an agreement was signed between the President of this country and Prime Minister Harper, I believe, on February 4th, 2011; correct?

Mr. HEYMAN. That is correct.

Mr. JEFFRIES. And there are three phases to that agreement; correct?

Mr. HEYMAN. Yes.

Mr. JEFFRIES. And the third phase, which will be implemented in June of 2014, will require the recordation and exchange of information of United States citizens who cross between the United States and the Canadian border; correct?

Mr. HEYMAN. Yes. Just like any border crossing, any arrival and departure, we will have all citizens, all persons who travel across the border identified.

Mr. JEFFRIES. Okay. Now, is that information shared with any other government agency beyond DHS?

Mr. HEYMAN. If there is a law enforcement nexus to it for criminal investigations, it might be shared.

Mr. JEFFRIES. Okay. Does the NSA have access to that information?

Mr. HEYMAN. I do not know.

Mr. JEFFRIES. Okay. If you can report back to me or to this Committee as to whether the NSA currently has access to that information in terms of the crossings that take place on sea or via air, or whether the NSA will have access to that information once it begins to be recorded on June 14th or June of 2014, that would be helpful.

Do you see any reason why, once it is determined that this individual who has crossed the border and is either a permanent resident or a United States citizen, there is no criminal justice nexus, why the NSA or any other Federal Government agency should have permanent access to that information?

Mr. HEYMAN. Well, as I said, on a case-by-case basis for criminal investigations, if it becomes necessary for understanding, for example, somebody's alibi—"I was out of the country"—and they are in a criminal proceeding, that would be helpful to them. If it is at the nexus of a criminal action, it would be harmful to them, but that would be corroborating information that would be in a criminal investigation.

Mr. LABRADOR. The gentleman's time has expired.

Mr. JEFFRIES. Thank you.

Mr. LABRADOR. Thank you very much.

I just have one quick question for clarification. I didn't understand Mr. Heyman's answer earlier in the hearing. Ms. Wood, maybe you can respond to this.

In April 2011, the GAO reported that there was a backlog of 1.6 million unmatched arrivals. Then later on we know, as of 2011, as of 2013, there is an additional million. But he stated that we have 100 percent knowledge of the people that are here. So I was confused about those two data points. Can you maybe explain that?

Ms. WOOD. Sure. With respect to the individuals that were identified, the 1.6 million in the GAO report, DHS agreed to review those records, and then this is what happened. Approximately 863,000 of those individuals had already departed, were in status, had adjusted, or there was some other reason they could be removed. So then DHS had left 839,000 records, and they reviewed those records. They actually only reprioritized 1,901 of those records, and they sent those out to the ICE unit for further investigation. And of the 1,901 records, nine of them were arrested, 266 could not be located and the investigation was closed pending new information, 481 were referred to enforcement and removal operations or ERO, but ERO later told GAO that they didn't prioritize those, very few of those. So we don't know, but we assume that it is a very, very small number, if any, that were arrested from that. Forty-three were previously arrested or were in proceedings. So it is a very small number of individuals that were actually arrested.

DHS may have the ability to at least initially identify what information people put on their records. But to say that DHS knows where individuals are I think is a little bit of an overstretch specifically because so few leads are actually sent to ICE, and ICE is investigating so few of them.

Mr. LABRADOR. And, Mr. Heyman, you didn't mean to say that you knew 100 percent of the people were here and where they were.

Mr. HEYMAN. We knew what their disposition was, whether they had overstayed. The reason you send them to investigations is you are trying to find them.

Mr. LABRADOR. Thank you. Thank you very much.

This concludes today's hearing. Thanks to all of our witnesses for attending. It was a great hearing.

Without objection, all Members will have 5 legislative days to submit additional written questions for the witnesses or additional materials for the record.

The hearing is adjourned.

[Whereupon, at 12:53 p.m., the Committee was adjourned.]

# APPENDIX

## MATERIAL SUBMITTED FOR THE HEARING RECORD

**Listing of Material submitted by the Honorable Bob Goodlatte, a Representative in Congress from the State of Virginia, and Chairman, Committee on the Judiciary**

The information includes five GAO reports; a statement by Rebecca Gambler before the Subcommittee on Border and Maritime Security, House Committee on Homeland Security showing the DHS has not met the requirements in implementing a biometric air exit system; a report from Smart Border Alliance to DHS; two reports by Customs and Border Protection; a letter report by the Office of the Inspector General; and a Pew Research study that documents an increase in the number of unauthorized immigrants in the country.

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GAO report entitled *Homeland Security: Some Progress Made, but Many Challenges Remain on U.S. Visitor and Immigrant Status Indicator Technology Program.* DHS created this report to better ensure that the US–VISIT program is worthy of investment and is managed effectively. To better ensure the effectiveness of this program, DHS will fully disclose in future expenditure plans its progress against previous commitments and that it reassess plans for deploying an exit capability.

Acessible at http://www.gao.gov/assets/250/245389.pdf

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GAO report entitled *Homeland Security: U.S. Visitor and Immigrant Status Program's Long-standing Lack of Strategic Direction and Management Controls Need to Be Addressed.* DHS has established a program known as U.S. Visitor and Immigrant Status Indicator Technology (US–VISIT) to collect, maintain, and share information, including biometric identifiers, on certain foreign nationals who travel to the United States. By Congressional mandate, DHS is to develop and submit an expenditure plan for US–VISIT that satisfies certain conditions, including being reviewed by GAO. GAO reviewed the plan to (1) determine if the plan satisfied these conditions, (2) follow up on certain recommendations related to the program, and (3) provide any other observations. To address the mandate, GAO assessed plans and related documentation against federal guidelines and industry standards and interviewed the appropriate DHS officials.

Accessible at: http://www.gao.gov/assets/270/265802.pdf

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GAO report entitled *Homeland Security: Key US–VISIT Components at Varying Stages of Completion, but Integrated and Reliable Schedule Needed.* DHS' U.S. Visitor and Immigrant Status Indicator Technology (US–VISIT) program stores and processes biometric and biographic information to amongst other things, control and monitor the entry and exit of foreign visitors. Currently, an entry capability is operating at almost 300 U.S. ports of entry, but an exit capability is not. GAO has previously reported on limitations in DHS's efforts to plan and execute its efforts to deliver USVISIT exit, and made recommendations to improve these areas. GAO was asked to determine (1) the status of DHS's efforts to deliver a comprehensive exit solution and (2) to what extent DHS is applying an integrated approach to managing its comprehensive exit solution. To accomplish this, GAO assessed USVISIT

exit project plans, schedules, and other management documentation against relevant criteria, and it observed exit pilots.

Accessible at: http://www.gao.gov/new.items/d1013.pdf

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GAO report entitled *Homeland Security: US–VISIT Pilot Evaluations Offer Limited Understanding of Air Exit Options.* DHS' U.S. Visitor and Immigrant Status Indicator Technology (US–VISIT) program is to control and monitor the entry and exit of foreign visitors by storing and processing biometric and biographic information. The entry capability has operated since 2006; an exit capability is not yet implemented. In September 2008, the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009, directed DHS to pilot air exit scenarios with the U.S. Customs and Border Protection (CBP) and airlines, and to provide a report to congressional committees. DHS conducted CBP and Transportation Security Administration (TSA) pilots and issued its evaluation report in October 2009. Pursuant to the act, GAO reviewed the evaluation report to determine the extent to which (1) the report addressed statutory conditions and legislative directions; (2) the report aligned with the scope and approach in the pilot evaluation plan; (3) the pilots were conducted in accordance with the evaluation plan; and (4) the evaluation plan satisfied relevant guidance. To do so, GAO compared the report to statutory conditions, the evaluation plan, and relevant guidance.

Accessible at: http://www.gao.gov/assets/310/308630.pdf

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GAO report entitled *Overstay Enforcement: Additional Actions Needed to Assess DHS's Data and Improve Planning for a Biometric Air Exit Program.* This report addresses the current need for additional action by DHS in order to fulfill its responsibility for identifying and taking enforcement action to address overstays. Within DHS, U.S. Customs and Border Protection (CBP) is tasked with, among other duties, inspecting all people applying for entry to the United States to determine their admissibility to the country and screening Visa Waiver Program applicants to determine their eligibility to travel to the United States under the program.

Accessible at: http://www.gao.gov/assets/660/656316.pdf

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Statement of Rebecca Gambler, Director of Homeland Security and Justice for GAO, before the Subcommittee on Border and Maritime Security, Committee on Homeland Security, House of Representatives; *Border Security: Additional Actions needed to Improve Planning for a Biometric Air Exit System.* Rebecca Gambler discusses DHS' efforts to implement a biometric exit system, as well as the full range of management challenges that DHS has faced in its effort to deploy a corresponding biometric exit system. Since 1996, federal law has required the implementation of an entry and exit data system to track foreign nationals entering and leaving the United States. The Intelligence Reform and Terrorism Prevention Act of 2004 required the Secretary of Homeland Security to develop a plan to accelerate implementation of a biometric entry and exit data system that matches available information provided by foreign nationals upon their arrival in and departure from the U.S.

Accessible at: http://www.gao.gov/assets/660/658185.pdf

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Smart Border Alliance report to DHS: US–VISIT Increment 2C RFID Feasibility Study Final Report. This document records the results of the RF Feasibility Study as it was conducted in a simulated environment (Mock Port of Entry). This, and the establishment of a Mock POE, must successful prior to Phase 1, POC implementation at POEs. Based upon successful completion of the Phase 1 Increment 2C POC, full operating capability will be implemented in Phase 2. Upon completion of Phase 2, a thorough evaluation will be conducted. Based upon the results of that evaluation, further deployment will be determined.

Accessible at: http://www.dhs.gov/xlibrary/assets/foia/US-VISIT__RFIDfeasibility__redacted-051106.pdf

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Entry/Exit Information System: Phase I Joint Canada-United States Report. This report discusses the planned development of a coordinated Entry/Exit Information system between the United States and Canada, as part of the Beyond the Border Declaration and Action Plan agreed to by President Obama and Prime Minister Harper in 2011.

Accessible at: http://www.cbp.gov/linkhandler/cgov/newsroom/highlights/canada__usreport.ctt/canada__usreport.pdf

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Customs and Border Protection report entitled Comprehensive Exit Plan. This report describes DHS' recent efforts to implement an enhanced biographic exit system and biometric exit planning, to better target foreign nationals who overstay their lawful period of admission; the results of pilot programs at the land ports of entry along the northern and southern borders; and efforts to align CBP's missions and functions to meet the changes enacted in P.L. 113–6.

Link not available. This report is inserted at the end of this list (see Attachment).

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OIG Letter Report: Department of Homeland Security US–VISIT Faces Challenges in Identifying and Reporting Multiple Biographic Identities. This Letter report written by the Assistant Inspector General of IT Audits Frank Deffer to Robert Mocny, the Director of US–VISIT, discusses two recommendations aimed at improving US–VISIT as deemed necessary by the OIG.

Accessible at:
http://www.oig.dhs.gov/assets/Mgmt/2012/OIG__12-111__Aug12.pdf

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The Pew Research Hispanic Trends Project study: Population Decline of Unauthorized Immigrants Stalls, May Have Reversed. This study discusses how the sharp decline in the U.S. population of unauthorized immigrants that accompanied the 2007–2009 recession has bottomed out, and the number may be rising again. It further discusses the reasons behind this trend.

Accessible at: http://www.pewhispanic.org/2013/09/23/population-decline-of-unauthorized-immigrants-stalls-may-have-reversed

**ATTACHMENT**

# Comprehensive Exit Plan

September 27, 2013

Fiscal Year 2013 Report to Congress

Homeland Security

*U.S. Customs and Border Protection*

# Message from the Acting Deputy Commissioner of CBP

September 27, 2013

I am pleased to present the following report, "Comprehensive Exit Plan," prepared by U.S. Customs and Border Protection (CBP).

This report responds to language in the Explanatory Statement and Senate Report 112-169 that accompany the *Fiscal Year* (FY) *2013 Department of Homeland Security* (DHS) *Appropriations Act* (P.L. 113-6).

The report, which has been prepared in partnership with U.S. Immigration and Customs Enforcement (ICE), National Protection and Programs Directorate's Office of Biometric Identity Management (OBIM), DHS Science and Technology Directorate (S&T), DHS Office of Policy, and DHS Office of Privacy, describes DHS's recent efforts to implement an enhanced biographic exit system and biometric exit planning, to better target foreign nationals who overstay their lawful period of admission; the results of pilot programs at the land ports of entry (POEs) along the northern and southern borders; and efforts to align CBP's missions and functions to meet the changes enacted in P.L. 113-6.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable John R. Carter
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable David E. Price
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Mary L. Landrieu
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Daniel Coats
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

The Honorable Robert Goodlatte
Chairman, House Judiciary Committee

The Honorable John Conyers, Jr.
Ranking Member, House Judiciary Committee

The Honorable Patrick J. Leahy
Chairman, Senate Judiciary Committee

The Honorable Charles Grassley
Ranking Member, Senate Judiciary Committee

The Honorable Michael McCaul
Chairman, House Homeland Security Committee

The Honorable Bennie G. Thompson
Ranking Member, House Homeland Security Committee

The Honorable Thomas R. Carper
Chairman, Senate Homeland Security and Governmental Affairs Committee

The Honorable Tom Coburn, M.D.
Ranking Member, Senate Homeland Security and Governmental Affairs Committee

If you have any questions, please do not hesitate to contact me at (202) 344-2001 or the Department's Chief Financial Officer, Peggy Sherry, at (202) 447-5751.

Sincerely,

Kevin K. McAleenan
Acting Deputy Commissioner
U.S. Customs and Border Protection

# Executive Summary

In May 2012, DHS provided a report titled "Comprehensive Biometric Exit Plan" (May 2012 report) to the Committees, describing efforts to improve existing operations designed to target and penalize those who violate U.S. immigration laws by overstaying their lawful period of admission in the United States.

This report updates the committees on the efforts described in the May 2012 report, answers the specific items described in the statutory language of the *FY 2013 DHS Appropriations Act* (P.L. 113-6), and describes CBP's efforts in aligning missions and functions required by changes enacted in P.L. 113-6.

CBP and its partner components within DHS have implemented major changes to the enhanced biographic exit program. First, in April 2013, DHS deployed Phase 2 of overstay validation and vetting, which is increasing connectivity among DHS systems and efficiencies, to better identify and sanction overstays.[1] Second, in June 2013, CBP deployed the second phase of the U.S.-Canada entry/exit initiative, which allows CBP to receive exit data on the northern border for non-Canadian foreign nationals departing the United States into Canada. This is a significant deliverable that obtains more data on land departures by third-country nationals than has ever been obtained previously by DHS, and will streamline the overstay identification process significantly. Finally, CBP is beginning its Southern Border Biographic Exit Initiative, to investigate the best methods of obtaining departure data from travelers departing from the United States into Mexico, and plans to complete a detailed report by the end of calendar year 2013.

CBP continues to research biometric exit capabilities using emerging biometric technologies. CBP and DHS S&T are partnering to develop a test facility that will examine operational concepts using biometric technology to improve all aspects of the CBP mission, including development of potential biometric exit program options in the air and sea environments.

Finally, CBP embraces the new direction within the entry/exit mission, as provided in P.L. 113-6, and will work toward development of a nationwide entry/exit system to enhance the integrity of the U.S. immigration system. The transitions of staff to CBP and ICE were successful and are now complete. CBP has created a home for the entry/exit transformation office charged with developing specified deliverables to implement an entry/exit program over the coming months and years that will benefit DHS significantly.

Overall, this plan illustrates the commitment of CBP and the rest of DHS to identifying and sanctioning those who abuse our immigration system, and to building an immigration system that has the confidence of the Congress and the American people.

[1] For purposes of this document, a person who remains inside the United States beyond his or her lawful period of admission is considered an "overstay."

# Comprehensive Exit Plan

## Table of Contents

# I. Legislative Language

This document responds to language in the Explanatory Statement and Senate Report 112-169 that accompany the *FY 2013 DHS Appropriations Act* (P.L. 113-6).

The Explanatory Statement states:

> Within 120 days after the date of enactment of this Act, U.S. Customs and Border Protection, in conjunction with the Office of Biometric Identity Management and any other appropriate partners, such as the Science and Technology Directorate, shall report to the Senate Committees on Appropriations, the Judiciary, and Homeland Security and Governmental Affairs and the House Committees on Appropriations, the Judiciary, and Homeland Security on the Department's tangible progress in implementing an enhanced biographic exit system and biometric exit planning. The report shall include the results of the Canadian pilot programs and provide an update on the Mexican pilot program.

Senate Report 112-169 states:

> The Committee directs the Secretary to report to the Senate Committees on Appropriations, the Judiciary, and Homeland Security and Governmental Affairs within 120 days after the date of enactment of this act, and to brief the Committee semiannually thereafter, on the Department's tangible progress in implementing an enhanced biographic exit system and biometric exit planning. The report shall include the results of the Canadian pilot programs and provide an update on the Mexican pilot program.

# II. Background

## A. Mission Need for Data on Foreign Nationals Departing the United States

One of the core missions of CBP is to enforce and administer U.S. immigration laws. A key aspect of effective enforcement of immigration laws is the ability to discern individuals who are lawfully present in the United States from those who have violated their terms of admission. Without this capability, enforcement efforts regarding overstays have little deterrent effect because there is not a consistent sanction for staying beyond one's authorized period of admission. An effective immigration system requires an end-to-end process that collects exit data and matches those to entry data. Without exit data, there is no meaningful way to determine whether foreign nationals have overstayed and no substantive process to allocate the necessary resources to determine which foreign nationals remain in the United States. Exit data are critical components for CBP to deliver on a core mission goal—to enforce and administer immigration laws.

Exit data are matched to the entry data collected by CBP officers at the time foreign nationals enter the United States. Before determining if individuals are overstays, DHS analyzes the data on the range of encounters individuals may have had, including whether individuals may have lawfully extended their stay in the United States or changed/adjusted their status through U.S. Citizenship and Immigration Services (USCIS).

As this report shows, CBP, ICE, and other DHS Components are working to deliver an effective immigration system that has the confidence of Congress and the American public, by working toward simultaneous goals. These goals include: increasing the availability of exit data for all DHS decision-makers; enhancing the quality of those data; effectively matching the entry and exit data on foreign nationals; and identifying and sanctioning overstays.

## B. Distinctions between Biographic and Biometric Exit Programs

In previous legislation, as well as in previous programs, there have been significant discussions concerning the type of exit data that should be collected. Typically, most countries use biographic data, which are essentially text data that are commonly included on the data page of a traveler's passport, such as name, date of birth, and country of citizenship.[2]

CBP has extensive experience and success with its biographic targeting, pre-arrival, and entry screening programs. Numerous biographic-based checks are queried simultaneously and, in the air environments, biographic-based checks are completed well before the traveler boards the aircraft to come to the United States. CBP is working on an equivalent system in the sea

[2] Text data can be electronically captured through passport features on the basis of international standards, such as a machine-readable zone or an e-Passport chip. Many countries like Australia, Japan, and the United Kingdom rely on biographic data for their immigration processing.

environment. CBP is making progress on implementing the program described in the Secretary's plan, which was submitted in May 2012; this plan emphasizes that DHS will enhance its biographic exit program while exploring options for biometric exit.

A biographic program and biometric program follow the exact same process up to the point of the collection of the biometric. A biometric program requires additional data collection beyond biographic elements, specifically a physical component of a person that is unique to an individual, such as a facial image, fingerprint, or iris scan. CBP has collected biometric data from nearly all foreign nationals arriving at air and sea POEs, and at all land POEs at secondary inspection since 2005. This information is checked immediately against various derogatory records, including the known or suspected terrorist watch list.

CBP now has in place a robust entry/exit system and intends to deploy an entry/exit system that achieves two specific benefits: (1) high confidence that the individual is the same person encountered before (identification match), and (2) high confidence that persons complied with (or did not comply with) their authorized period of admission (entry and exit record match). In the exit context, this would mean that a traveler could not depart as an imposter (i.e., by using erroneous biographic information) and therefore appear to depart when the traveler has not actually departed. Biographic matches based on data such as names and document numbers provide significant evidence that the traveler is genuine, but biometrics should offer a greater degree of assurance that the individual is who he or she claims to be, and whether the individual has actually departed the United States. With improved matching capabilities, the ability to match biometric entry and exit data would become more accurate and complete. Continuing to take steps to improve our exit system will create more accurate, system-identified overstay records, thus reducing the number of overstay records manually vetted before forwarding to field offices for enforcement action.

## C. Summary of Efforts since 9/11

CBP provided a May 2012 report to the House and Senate Appropriations Committees, which described the efforts DHS has undertaken since 2001 regarding improving the ability to identify and sanction overstays. The accomplishments described in the report were completed primarily by CBP and OBIM (formerly the United States Visitor and Immigrant Status Indicator Technology (US-VISIT) Program). The efforts included:

- 2002 – Creation of the Arrival and Departure Information System (ADIS), which collects and matches biographic entry and exit data collected by DHS.
- 2003 – Creation of the US-VISIT program, whose mission was to consolidate the collection of entry and exit data, both biometric and biographic, of individuals traveling into and out of the United States by air, land, and sea.
- 2004 – Deployment of biometric entry capability at all air and sea POEs.[3]
- 2005 – Deployment of biometric entry capability at all land POEs (in secondary inspection facilities).[4]

[3] 69 Fed. Reg. 468 (January 5, 2004).
[4] 69 Fed. Reg. 53318 (August 31, 2004); 70 Fed. Reg. 54398 (September 14, 2005).

- 2004–2007 – Deployment of a pilot program collecting biometric data on departing passengers through use of kiosks located after the Transportation Security Administration (TSA) checkpoint or hand-held devices utilized at the airline gates.[5]
- 2007 – Establishment of the pre-departure Advance Passenger Information System (APIS) that requires air and sea carriers to provide accurate arrival and departure manifest information to CBP before boarding.[6]
- 2008 – Publication of a notice of proposed rulemaking[7] requiring the airlines to collect biometric data upon departure from the United States on behalf of DHS.
- 2009 – Deployment of a second pilot program[8] collecting biometric data on departing passengers at Detroit Metropolitan Wayne County and Hartsfield-Jackson Atlanta airports, based on two operational concepts: collection of biometric data by CBP officers in an airport jet bridge (Detroit Metropolitan Wayne County Airport) or by TSA officers at a TSA checkpoint (Hartsfield-Jackson Atlanta Airport).
- 2010 – Secretarial policy review to focus on enhancing the existing DHS biographic exit system, while simultaneously conducting research and development for a future biometric exit program.
- 2011 – Development of a DHS inter-Component working group to develop ways to enhance the ability of DHS to identify and sanction overstays; checks of all overstay records against National Targeting Center data; and checks of all overstay records against National Counterterrorism Center data.

The May 2012 report discussed future and proposed elements of enhancing the biographic exit capabilities, as well as the research and development into a biometric exit proposal. Updates on both programs are included in the following sections.

[5] 69 Fed. Reg. 468 (January 5, 2004); 69 Fed. Reg. 46556 (August 3, 2004).
[6] 72 Fed. Reg. 483449 (August 23, 2007).
[7] 73 Fed. Reg. 22065 (April 24, 2008).
[8] 74 Fed. Reg. 26721 (June 3, 2009).

# III. Progress on Enhanced Biographic Exit

The enhanced biographic exit program increases the ability of DHS to collect accurate biographic data and match those data to entry records to identify overstays, as well as provide additional methods of ensuring that overstays are sanctioned. The program is currently divided into three main elements: Overstay Validation and Vetting, Document Validation, and Land Entry/Exit program.

## A. Overstay Validation and Vetting

CBP, ICE, and OBIM have worked together to develop their enhanced biographic exit capabilities since the May 2012 report was released to Congress. That report described the pilot project in which 1.6 million unvetted potential overstay records[9] accumulated over a 7-year time period, would be checked against CBP's Automated Targeting System-Passenger (ATS-P), and other data, to determine if any of the existing potential overstay records posed a significant security threat. These records have all been reviewed and vetted. Through this activity, DHS identified specific records that were associated with a public safety or national security concern and referred those leads to ICE for further investigation. This was referred to as Phase 1 for Overstay Validation and Vetting, designed to better connect various sources of DHS data, to identify and sanction travelers of significant law enforcement interest more accurately and efficiently.

A beneficial byproduct of this effort was the identification of efficiencies and cost savings gained through automating this process, including the reduction in time of exchanging data between component systems. Through this new automated process, DHS Components identified ways in which to enrich data sources, enhance automated matching, eliminate gaps in travel history, and aggregate information from multiple systems.[10] As a result, ICE analysts are now able to more accurately and more quickly identify "true" overstay cases from potential ones.

For Phase 2 of Overstay Validation and Vetting, a variety of initiatives were implemented with two overall objectives in mind. The first objective is to vet the potential overstay population to identify threats. This would maintain Phase 1 activity in ensuring that all potential overstay records are immediately checked against certain derogatory data to quickly identify individuals who may pose a threat to public safety or are of national security concern. The second objective is to provide faster enforcement action on prioritized threats. Once threats are identified, ICE agents have information on which action can be taken.

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[9] "Unvetted overstay records" are those records that are identified by the automated system, ADIS, as possible overstays, but that still require further manual review to determine whether the person truly is an overstay in addition to other factors, such as criminal history, other immigration law violations, address in the United States, alias, etc.

[10] Department analysts are currently required to manually search different systems to determine whether a person has truly overstayed the terms of his or her admission. As an example, an individual could have lawfully changed his or her status within the United States and thus not departed when his or her original admission would have required. Not having all of the required USCIS information readily available within ADIS is a "gap" that these enhancements will help fill.

The Phase 2 deployment for Overstay Validation and Vetting was implemented on April 9, 2013. This multi-pronged effort included:

- **Automation of the flow of information among ADIS, ATS-P, and LeadTrac.** ADIS (currently managed by OBIM), ATS-P (managed by CBP), and the LeadTrac system (managed by ICE) now have seamless, automated flow of information among the three systems. The purpose of connecting them is to ensure that targeting information can be used to best prioritize overstay cases of the most importance and to take advantage of ATS-P held information to better monitor departures from the United States. Before April 9, 2013, all transfers had to be done manually, which was time consuming and inefficient. The connectivity also allows for continuous vetting of ADIS data for overstay leads, ensuring that newly introduced threat information can be included in the analysis and quickly provided to ICE agents.
- **Use of ATS-P to enhance name matching for overstay vetting.** CBP now is able to leverage the existing ATS-P matching algorithms, which allow for more accurate matching to derogatory records.
- **Development of a Basic ICE Overstay "Hot List."** CBP has created an operational dashboard for ICE analysts that aggregates data from several source systems, allowing ICE analysts to easily view information for lead analysis. This has eliminated the manual process of exchange of data among OBIM, CBP, and ICE.
- **Enhancement of ADIS/IDENT/CLAIMS 3, and Student and Exchange Visitor Information System (SEVIS) interfaces.** OBIM now has improved connectivity between ADIS and IDENT (the DHS biometric storage and matching service), CLAIMS 3 (a DHS immigration benefits database, managed by USCIS), and SEVIS (the DHS foreign student database, managed by ICE). This ensures ADIS has a more complete picture of information held by DHS and closes out many false positive overstay cases, saving time and money and allowing for better allocation of DHS resources.

Collectively, the Phase 2 deployment provides increased efficiency by reducing technical operations support and processing time, combined with faster and more secure processing and transfer of data. It also reduces workload by decreasing the number of overstay cases requiring manual review (through fewer false positives) and overall more efficiently allocates resources. Phase 2 creates more flexibility/agility by reducing time and increasing DHS's ability to quickly react to changes in the threat environment on the basis of intelligence received. This increases the ability of DHS to react appropriately concerning vetting of overstay records.

CBP, ICE, and OBIM continue to move forward on Phase 3 of Overstay Validation and Vetting. The goals of Phase 3 are to enhance the changes underway in Phase 2 and modernize ADIS. By mid-2014, DHS will develop and deploy:

- **Unification of Overstay Case Management Process.** By building a data exchange interface between ADIS and ICE's LeadTrac's modernized system, overstay case management work will be migrated to one analyst platform for DHS. ADIS will benefit from enhanced overstay case management updates from both the ICE Overstay Analysis Unit and Counterterrorism and Criminal Exploitation Unit.

- **Enhancement of the ADIS/TSA Alien Flight School Program (AFSP) Data Exchange.** ICE uses ADIS to flag overstays who are enrolled in the AFSP. These data exchanges will be done in an automated way instead of manually.
- **Continued Enhancement of ADIS/SEVIS Interface.** This will ensure ADIS has the most complete picture of information held by DHS and the most accurate picture of overstays possible; it will close out many false positive overstay cases, saving time and money and allowing for better allocation of DHS resources. Additional data elements and updates to data processing will be implemented.
- **Improved Matching Algorithms.** Lawrence Livermore National Labs Matching will complete a detailed analysis and provide recommendations as to how to fully incorporate biometric identifiers into biographic matching for all transaction types. This will enrich biographic matching capabilities by utilizing the confidence of biometrics, and will significantly enhance the ADIS/IDENT interface deployed during Phase 2.
- **Data Integration.** Building on Phase 2, data transfers among CBP, OBIM, and ICE systems will be streamlined and further automated.
- **Enhance the Overstay Hotlist** – Building on Phase 2, CBP will expand capability, including the use of additional law enforcement and counterterrorism data in the Hotlist for ICE.
- **User-Defined Rules Development.** Capability will be developed for end users (ICE agents) to create rule sets within ATS-P as threats evolve; capability will allow for prioritization of overstays meeting certain criteria.

The Overstay Validation and Vetting effort has proven to be valuable in more quickly and accurately identifying overstays. It has strengthened data requirements, identified overstays of national security concern, and automated manual efforts. As DHS and CBP proceed into Phase 3, we will keep the committees apprised of this information as the program moves forward.

## B. Document Validation

Individuals regularly attempt to travel using fraudulent documents, including imposters attempting to use valid documents, documents that have been altered, and fake documents. Air carriers may unwittingly transmit this incorrect passenger manifest information to CBP; this fraudulent information inhibits CBP's ability to properly vet the traveler for security and law enforcement concerns and hinders DHS's ability to match arrival and departure records.

CBP's Document Validation program will compare carrier-submitted pre-departure manifest data to issuance information. Through Document Validation, incorrect visa information submitted in a manifest will be identified before the issuance of a boarding pass, preventing individuals from traveling on expired, revoked, or fraudulent visas. Interactive response messaging advises the carrier when the traveler:

- Is Authorized to Board – pre-departure manifest information matches a source record.
- Could not be Validated – no matching source record is found; carrier must correct.
- Should not be Boarded – matching source record is found but adverse information exists.
- Is Pending Review – source record is found but requires documentary review.

CBP recommends that the carrier only board travelers that receive an "Authorized to Board" message. Although CBP cannot prohibit boarding as TSA does through the Secure Flight program, CBP will issue a recommendation to the carrier when significant concerns are identified. Carriers who board an individual against this recommendation may be subject to fines and additional expenses associated with returning the inadmissible passenger.

Document Validation is being developed and deployed through several phases. CBP is currently in the first phase, which is validation of visas (both immigrant and nonimmigrant). Subsequent phases will include validation of additional types of U.S.-issued travel documents. Currently, one airline is using document validation for 34 weekly flights, with two additional airlines activating test flights in the fall of 2013. Outreach to all air carriers has started, and the carriers fully support implementing Document Validation.

As CBP deploys Document Validation, it will need to request additional funding to cover the cost of subsequent phases of Document Validation (beyond the first phase) and seek regulatory authority to mandate carrier compliance. Although CBP does not today have the legal authority to prohibit boarding as TSA does through Secure Flight, CBP is able to fine carriers that provide inaccurate APIS manifest information or that board passengers who do not have appropriate documentation. CBP expects airlines to fully participate because carriers have a financial incentive to do so.

## C. Land Entry/Exit Program

Recording the exit of travelers departing the United States is especially challenging in the land environment, given the lack of physical infrastructure in departure lanes at the land ports. There are no inspection booths or facilities at departure lanes comparable to those for entry lanes. For example, the port at San Ysidro, California, is the largest entry-exit port for travelers coming to or leaving the United States. It has 25 entry lanes for vehicular traffic and approximately 4 for exit. For this reason, DHS has explored options for the recording of a foreign national's departure that does not rely on significant infrastructure development. Congress has recognized the difficulties inherent in development of exit capabilities in the land environment.

### 1. U.S.-Canadian Border

As described in the May 2012 report, the *Beyond the Border* Declaration[11] gave DHS an opportunity to develop a low-cost way to collect exit information along the northern border of the United States. The *Beyond the Border* Declaration involves a series of commitments made by the United States and Canada to exchange data for a number of border enforcement and immigration security initiatives; one of these is that the United States and Canada will serve as the exit function for the other country by exchanging entry records. Land entries into one country will serve as exit records from the other.

[11] United States-Canada Beyond the Border: A Shared Vision for Perimeter Security and Economic Competitiveness, Action Plan, December 2011. Accessible at http://www.whitehouse.gov/sites/default/files/us-canada_btb_action_plan3.pdf.

If a traveler enters Canada from the United States across our shared land border, the Canada Border Services Agency (CBSA) transmits that entry data back to CBP, which uses the data as the record of the individual's departure from the United States. In return, the United States does the same for Canada. Through this mechanism, each country has achieved a land exit solution by working together and negating the need for costly new physical infrastructure or processes that could interfere with the flow of travel or trade in the border region.

There are three phases for the entry/exit information system described in *Beyond the Border*. In the first phase, Canada and the United States implemented a pilot project exchanging entry data for third-country nationals, permanent residents of Canada, and U.S. lawful permanent residents, who entered either country through four common land ports.[12] The two countries exchanged biographic entry data only on third-country nationals and permanent residents, not U.S. or Canadian citizens. The first phase of the project was deployed on time from September 30, 2012, until January 16, 2013.

The results exceeded expectations in terms of the ability of both countries to reconcile entry and exit records. Canada reconciled 94.5 percent of the records received from the United States, while the United States reconciled 97.4 percent of the records received from Canada. This means that the United States is able to verify the exit of a significant number of individuals, which will only increase in subsequent phases. CBP expects that these percentages will increase in subsequent phases with the inclusion of all land POEs at the northern border and as the causes for any non-reconciliation in this phase are better identified and subsequently rectified. On May 14, 2013, CBP and CBSA published a joint report for the first phase of this entry/exit project.[13]

In the second phase of the project, which was deployed on time on June 30, 2013,[14] Canada and the United States expanded the program exchanging the entry data for third-country nationals, permanent residents of Canada, and U.S. lawful permanent residents in the United States, to entry points at *all* automated common land ports.[15] As a result of these exchanges, the United States now has a fully functioning land border exit system on its northern border for non-U.S. and non-Canadian citizens. Specific data in terms of overstays identified and other metrics will be available in the coming months.

By June 30, 2014, Canada and the United States will implement the third phase of the project, expanding the program to include the exchange of entry data for all travelers (including U.S. and Canadian citizens) who enter through any automated common land ports on the northern border. Overall, this initiative is expected to enhance the ability to identify departures and successfully match entry and exit records at the land border for the first time.

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[12] The four locations were Peace Arch, Pacific Highway, Rainbow Bridge, and Queenstown/Lewiston.
[13] http://www.cbp.gov/xp/cgov/newsroom/news_releases/national/05142013_6.xml
[14] http://www.cbp.gov/xp/cgov/newsroom/news_releases/national/07032013.xml
[15] An automated land border port is one in which data are collected electronically. Automated land ports currently collect well over 99 percent of the traffic of third-country nationals on both sides of the border.

**2. U.S.-Mexican Border**

Given the successes in development with the U.S.-Canada entry/exit program, CBP is seeking to develop a similar program with the Government of Mexico and determine what options exist in terms of collection of biographic information on the southern border. CBP is currently developing a plan that will analyze the existing opportunities and short- and long-term options for the development of exit capability.

There are stark differences between the northern and southern borders that will make a land entry/exit program on the southern border more challenging. Unlike Canada, Mexico does not have fixed physical structures at every major POE on its border with the United States to process travelers entering Mexico, nor does it have data collection procedures similar to the United States and Canada. Additionally, Mexico accounts for approximately 70 percent of the total land border crossings. In FY 2012, 234 million travelers crossed into the United States through a land POEs. Of the 234 million, 162 million entered through the southern border with Mexico.

Despite these obstacles, CBP will continue to research the potential for outbound data collection at the southern border, including: collection of usable departure information as part of existing CBP outbound enforcement processes, such as "pulse and surge" operations[16]; feasibility of the exchange of any available data with the Mexican Government concerning travelers who enter Mexico at certain POEs; and feasibility of the exchange of any available data with the Mexican Government concerning travelers who are processed at facilities in the interior of Mexico.

CBP will keep the committees updated on any progress toward a similar data exchange on the southern border of the United States.

[16] "Pulse and Surge" are strategies whereby CBP officers monitor outbound traffic on the U.S. southern border. See Testimony of Commissioner Alan Bersin, U.S. Commissioner of Customs and Border Protection, before the Senate Caucus on International Narcotics Control, March 9, 2011. Accessible at http://www.dhs.gov/news/2011/03/09/testimony-commissioner-alan-bersin-us-customs-and-border-protection-senate-caucus. Although the purpose of "pulse and surge" is to counter traffic in drugs, currency, and firearms into Mexico, data collected during these operations could be used to create departure records for foreign nationals.

# IV. Progress on Biometric Exit

The May 2012 report summarized the history of the biometric exit pilot programs already undertaken by DHS, the lessons learned from pilot programs, and the DHS shift to researching emerging technologies for a biometric exit program. DHS learned from pilot programs that an exit system must seamlessly integrate biometric collection into existing traveler procedures and travel industry business processes. Deploying a solution that is inconvenient to travelers is not likely to be successful and will be met with passenger and private-sector resistance.

Additionally, an exit system must effectively control labor costs. In previous pilots, labor costs were the most significant expense and the majority of the cost in implementing a biometric exit capability. It is necessary to identify a biometric technology and collection process that can collect biometrics at a location that gives the highest assurance that the traveler departed, without requiring significant staffing to support biometric collection. Lastly, the pilot programs reinforced the principle that impacts should be minimized on the airlines and travel authorities. DHS Components must be able to work collaboratively with the carriers and facility operators to ensure a successful biometric air exit program that does not slow or adversely affect lawful travel.

DHS shifted its approach to research emerging technologies for a biometric exit program and turned to DHS S&T, in collaboration with CBP, to conduct further evaluation and testing. As part of this effort, DHS S&T will expand collaboration with the National Institute for Standards and Technology to evaluate new operational concepts based on new biometric technologies (not previously available for testing in pilots), and inform the design of more effective, cost-effective, and affordable approaches. DHS S&T will conduct testing activities within a formative evaluation framework, including process, outcome, and cost components to allow comprehensive analysis of the costs and benefits associated with both enhanced biographic exit and biometric exit. In addition, DHS S&T will engage private industry to accelerate the development of cost-effective technologies that will meet DHS's needs.

The May 2012 report also provided a schedule toward implementation of such a program, from testing in 2015 toward deployment by 2016–2018, if feasible. The following subsections summarize the progress DHS has made in the biometric exit program since then.

## A. Apex Agreement

CBP and DHS S&T have created an Apex Project titled Air Entry/Exit Re-Engineering (AEER) to assist CBP in addressing its challenges, as well as to enable DHS to meet the mandate for a biometric air exit capability. Apex Programs are DHS S&T initiatives that focus on cross-cutting or multi-disciplinary efforts, which are initially requested by DHS Components and are of a high priority, high value, and urgent nature.

The purpose of the AEER Project is to analyze, develop, test, pilot, and evaluate integrated approaches to biometrically confirm the departure of non-U.S. citizens at U.S. airports, as well as

to introduce more efficient traveler facilitation processes and effective biometric technologies to screen travelers entering the United States. Although current legislation focuses on biometric exit, improvements must be made to the end-to-end process, from entry to exit, to be most effective.

As an Apex agreement, DHS S&T has authorized funding to support the underlying operations and will spend approximately $11 million in FY 2013 on this effort.

The goals of the project are to: 1) develop recommended approaches and implement technologies for cost-effective and integrated Air Exit biometric capabilities; and 2) identify and implement technologies and enhancements to existing airport Air Entry operations for inspecting and examining travelers entering the United States. Deliverables under the Apex agreement include development and testing of multiple candidate biometric exit concepts. The program also will include computer modeling and simulation of biometric air exit processes to evaluate potential candidates, and economic analyses of impacts on operations.

## B. Baseline for Biometric Exit

DHS, under S&T leadership, conducted operational surveys of U.S. international airports from April through August 2013. The visits are reviewing existing operations and airport facilities in order to factor them into upcoming analysis and testing. DHS S&T is visiting major international airports in the following cities:

- Atlanta
- Chicago
- Las Vegas
- Los Angeles
- Miami
- New York
- San Francisco
- Washington

The surveys will depict a baseline of the "as-is" operational processes and capacity and provide the operational requirements and capability gaps. Results will be analyzed to identify and prioritize which parts of the Air Entry/Exit process are potential areas of opportunity to introduce different processes or new technologies that will help CBP facilitate traveler entry and implement a biometric exit capability.

## C. Outreach to Carriers and Airports

Since February 2013, DHS also has begun its outreach to airlines and airports, seeking their assistance for biometric air exit testing. DHS has requested operating guidelines from airlines, to minimize the impact any future pilot test would have on live exit testing. Discussions with airports, airport authorities, airlines, and specific industry organizations are ongoing.

## D. Biometric Exit Test Capability

DHS S&T is establishing an Air Entry/Exit Demonstration/Test Bed to test biometric entry and exit concepts in a laboratory setting to include simulated scenarios that will mimic operationally relevant environments. The design was completed and a test location identified in May 2013 (in Landover, Maryland). The test capability is expected to be available by the end of calendar year 2013 with biometric entry and exit testing commencing in early calendar year 2014.

# V. Agency Realignment

P.L. 113-6 created a new structure within DHS for operational control of the entry/exit and overstay analysis programs. Entry/exit policy and operations were moved from US-VISIT to CBP. The overstay analysis function was moved from US-VISIT to ICE. The remaining parts of the US-VISIT program became OBIM.

There are several implications to the shifting of functions. CBP now maintains the overall entry/exit mission for DHS. ICE now conducts analysis of overstays on the basis of data collected by appropriate DHS Components and placed in ADIS. OBIM now focuses primarily on biometrics and supporting components as biometric capabilities are introduced. Overall, operational work in this mission area now resides exclusively in operational components, which in turn rely on other parts of DHS for support. CBP fully supports this realignment, embraces the new entry/exit mission, and will work to continue the efforts discussed to improve the existing nationwide entry/exit system with the goal of further enhancing the integrity of the U.S. immigration system.

Because of the extensive planning that occurred over the past year, the transitions of staff to CBP and ICE (as directed in the FY 2013 full-year appropriations bill) were successful and are now complete. CBP created an entry/exit transformation office, which is developing specified deliverables to implement an entry/exit program over the coming months and years. CBP will work closely with ICE, OBIM, and other parts of DHS to further this important mission.

# VI. Conclusion

CBP is committed to providing to the American public an immigration system with operational integrity. An integral component of this effort is to have an exit system that enables DHS to better identify and sanction those who overstay their period of lawful admission to the United States.

CBP is advancing aggressively to enhance our existing capabilities. CBP is improving its data collection upon departure, improving its ability to match entry and exit records, and developing technology and procedures to take immediate action against overstays who meet national security and public safety criteria. In addition, CBP is developing new sources of exit data and is taking administrative action, at a minimum, for all overstays identified. CBP is progressing on a fiscally conservative, thoughtful, and responsible path to deploy a comprehensive biographic and biometric entry/exit system.

CBP and DHS S&T continue to advance the research and development for potential biometric air exit program options and are identifying operational concepts that are feasible in the current environment at U.S. airports and seaports. CBP and DHS S&T will begin testing concepts in early calendar year 2014, which will significantly inform future efforts.

Overall, DHS has significantly improved the existing entry/exit system throughout all operational environments and will further the biographic efforts while working toward a feasible biometric solution. DHS will continue to keep Congress apprised of its efforts in developing an immigration system that has the full confidence of the American people.

# VII. Appendix—Acronyms

| Acronym | Definition |
|---|---|
| ADIS | Arrival and Departure Information System |
| AEER | Air Entry/Exit Re-Engineering |
| AFSP | Alien Flight School Program |
| APIS | Advance Passenger Information System |
| ATS-P | Automated Targeting System-Passenger |
| CBP | U.S. Customs and Border Protection |
| CBSA | Canada Border Services Agency |
| DHS | Department of Homeland Security |
| FY | Fiscal Year |
| ICE | U.S. Immigration and Customs Enforcement |
| OBIM | Office of Biometric Identity Management |
| POE | Port of Entry |
| S&T | Science and Technology Directorate (DHS) |
| SEVIS | Student and Exchange Visitor Information System |
| TSA | Transportation Security Administration |
| US-VISIT | United States Visitor and Immigrant Status Indicator Technology |
| USCIS | U.S. Citizenship and Immigration Services |