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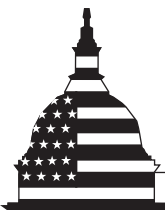
GAO

Testimony

Before the Subcommittee on Aviation Operations, Safety, and Security, Committee on Commerce, Science, and Transportation, U.S. Senate

AVIATION SECURITY

DHS Has Taken Steps to Enhance International Aviation Security and Facilitate Compliance with International Standards, but Challenges Remain

Statement of Steve Lord, Director
Homeland Security and Justice Issues

G A O

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AVIATION SECURITY

DHS Has Taken Steps to Enhance International Aviation Security and Facilitate Compliance with International Standards, but Challenges Remain

Why GAO Did This Study

The attempted December 25, 2009, terrorist attack and the October 2010 bomb attempt involving air cargo originating in Yemen highlight the ongoing threat to aviation and the need to coordinate security standards and practices to enhance security with foreign partners, a process known as harmonization. This testimony discusses the Department of Homeland Security's (DHS) progress and challenges in harmonizing international aviation security standards and practices and facilitating compliance with international standards. This testimony is based on reports GAO issued from April 2007 through June 2010, and ongoing work examining foreign airport assessments. For this work, GAO obtained information from DHS and the Transportation Security Administration (TSA) and interviewed TSA program officials, foreign aviation officials, representatives from international organizations such as the International Civil Aviation Organization (ICAO), and industry associations, about ongoing harmonization and TSA airport assessment efforts and challenges.

What GAO Recommends

In response to prior GAO recommendations that TSA, among other things, track the status of foreign airport assessments, DHS concurred and is working to address the recommendations. TSA provided technical comments on a draft of the information contained in this statement, which GAO incorporated as appropriate.

View GAO-11-238T or key components. For more information, contact Steve Lord at (202) 512-4379 or lords@gao.gov.

What GAO Found

In the wake of the December 2009 terrorist incident, DHS and TSA have strived to enhance ongoing efforts to harmonize international security standards and practices through increased global outreach, coordination of standards and practices, use of enhanced technology, and assessments of foreign airports. For example, in 2010 the Secretary of Homeland Security participated in five regional summits aimed at developing an international consensus to enhance aviation security. In addition, DHS and TSA have coordinated with foreign governments to harmonize air cargo security practices to address the statutory mandate to screen 100 percent of air cargo transported on U.S.-bound passenger aircraft by August 2010, which TSA aims to meet by 2013. Further, in the wake of the December 2009 incident, the Secretary of Homeland Security has encouraged other nations to consider using advanced imaging technology (AIT), which produces an image of a passenger's body that screeners use to look for anomalies such as explosives. As a result, several nations have begun to test and deploy AIT or have committed to deploying AIT units at their airports. Moreover, following the October 2010 cargo bomb attempt, TSA also implemented additional security requirements to enhance air cargo security. To facilitate compliance with international security standards, TSA assesses the security efforts of foreign airports as defined by ICAO international aviation security standards. In 2007, GAO reported, among other things, that TSA did not always consistently track and document host government progress in addressing security deficiencies identified during foreign airport assessments and recommended that TSA track and document progress in this area.

DHS and TSA have made progress in their efforts to enhance international aviation security through these harmonization efforts and related foreign airport assessments; however, a number of key challenges, many of which are beyond DHS's control, exist. For example, harmonization depends on the willingness of sovereign nations to voluntarily coordinate their aviation security standards and practices. In addition, foreign governments may view aviation security threats differently, and therefore may not consider international aviation security a high priority. Resource availability, which is a particular concern for developing countries, as well as legal and cultural factors may also affect nations' security enhancement and harmonization efforts. In addition to challenges facing DHS's harmonization efforts, in 2007 GAO reported that TSA experienced challenges in assessing foreign airport security against international standards and practices, such as a lack of available international inspectors and concerns host governments had about being assessed by TSA, both of which may affect the agency's ability to schedule and conduct assessments for some foreign airports. GAO is exploring these issues as part of an ongoing review of TSA's foreign airport assessment program, which GAO plans to issue in the fall of 2011.

Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to participate in today's hearing to discuss the Department of Homeland Security's (DHS) efforts to work with foreign partners to enhance international aviation security. The December 25, 2009, attempt to detonate an explosive during an international flight bound for Detroit, and the October 2010 discovery of explosive devices in air cargo packages bound for the United States from Yemen, provide vivid reminders that civil aviation remains a key terrorist target and highlight the importance of working with foreign partners to enhance international aviation security. In response to the December 2009 incident, the Transportation Security Administration (TSA) mandated enhanced security measures for air carriers at United States airports and for all international flights—prior to departure—bound for the United States.[1] Additionally, the President directed DHS to take a number of steps to enhance aviation security including strengthening international coordination on aviation security issues and pursuing enhanced screening technology, protocols, and procedures. Following the October 2010 bomb attempt in cargo originating in Yemen, TSA also implemented additional security requirements to enhance air cargo security.[2]

To this end, DHS has increased its ongoing efforts to work with foreign partners to coordinate security standards and practices among nations—a process known as harmonization. Harmonization, as defined by DHS, refers to countries' efforts to coordinate their security standards and practices to enhance security as well as the mutual recognition and acceptance of existing security standards and practices aimed at achieving the same security outcome.[3] TSA also facilitates compliance with existing international standards and practices by coordinating assessments of

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[1]See, for example, TSA, SD 1544-09-06E (Apr. 2, 2010); EA 1546-09-01D (Jan. 3, 2010).

[2]On November 8, 2010, DHS announced security measures in response to the Yemen incident. Specifically, TSA banned cargo originating from Yemen and Somalia from transport into the United States; banned the transport of cargo deemed high-risk on passenger aircraft; prohibited the transport of toner and ink cartridges weighing 16 ounces or more on passenger aircraft in carry-on and checked luggage; and required additional screening of high-risk cargo prior to transport on an all-cargo aircraft.

[3]For the purposes of this statement, "standards and practices" refers to statutory, regulatory and other requirements as well as any measures or practices imposed or followed by a country to secure its civil aviation system. This general term encompasses the International Civil Aviation Organization (ICAO) "standards and recommended practices" also referred to in this statement.

foreign airports with foreign nations. Through its foreign airport assessment program, and using international standards and recommended practices, TSA determines whether foreign airports that provide service to the United States are maintaining and carrying out effective security measures.

The Aviation and Transportation Security Act (ATSA), enacted into law shortly after the September 11, 2001, terrorist attacks, established TSA and gave the agency responsibility for securing all modes of transportation, including the nation's civil aviation system, which includes air carrier operations (domestic and foreign) to, from, and within the United States.[4] For example, ATSA requires that TSA provide for the screening of all passengers and property, including air cargo, transported on passenger aircraft.[5] ATSA further requires that a system be in operation to screen, inspect, or otherwise ensure the security of the cargo transported by all-cargo aircraft—aircraft that carry only cargo and no passengers—to, from, and within the United States.[6] TSA also assesses the effectiveness of security measures at foreign airports served by a United States air carrier, or from which a foreign air carrier serves the United States, at intervals deemed appropriate by the Secretary of Homeland Security.[7] TSA further requires that domestic and foreign air carriers with operations to, from, or within the United States establish and maintain TSA-approved security

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[4]See Pub. L. No. 107-71, 115 Stat. 597 (2001).

[5]See Pub. L. No. 107-71, § 110(b), 115 Stat. at 614-15 (codified as amended at 49 U.S.C. § 44901). The U.S. Customs and Border Protection (CBP) also plays a role in securing inbound cargo—cargo transported by U.S. and foreign air carriers from a foreign location to the United States—by selectively screening cargo upon its arrival in the United States. CBP has primary responsibility for preventing terrorists and implements of terrorism from entering the United States. CBP is currently coordinating with TSA to determine the feasibility of using CBP's Automated Targeting System—a system used by DHS to match travelers and goods against certain screening information and intelligence—to support TSA's efforts toward screening 100 percent of inbound air cargo. In discussing how a system to target certain shipments for screening will fit into TSA's overall plans to screen 100 percent of inbound air cargo, officials stated that ATS would provide an additional layer of scrutiny for all cargo entering the United States.

[6]See 49 U.S.C. § 44901(f) (requiring the system to be in operation as soon as practicable after the date of enactment—November 19, 2001—but without establishing a firm deadline).

[7]See 49 U.S.C. § 44907. While § 44907 requires that TSA conduct foreign airport assessments at intervals deemed necessary, in practice TSA may not perform an assessment of security measures at a foreign airport without permission from the host government.

programs and comply with any applicable security directives or emergency amendments to air carrier security programs.[8]

On a global basis, the International Civil Aviation Organization (ICAO), a specialized agency of the United Nations representing 190 countries, has established security standards and recommended practices to help ensure a minimum baseline level of international aviation security among member nations.[9] These international aviation security standards and recommended practices are detailed in Annex 17 to the Convention on International Civil Aviation, as adopted by ICAO. Although TSA security requirements generally encompass (and in several instances exceed) the ICAO standards and recommended practices, the ICAO standards and recommended practices are broad and open to different interpretations. As such, there are wide variations among the aviation security practices adopted by ICAO member nations. For example, some nations require passengers to remove their shoes for screening at airport passenger checkpoints while others do not. TSA officials stated that countries may utilize different approaches to achieve the same outcome and that DHS and TSA work closely with their international partners and with other U.S. agencies, such as the U.S. Department of State (State), to enhance existing international standards and practices through harmonization efforts.

My testimony today discusses DHS's progress and challenges in enhancing international aviation security standards and practices through harmonization efforts and facilitating compliance with ICAO standards and recommended practices. My comments are based, in part, on our prior reports and testimonies issued from April 2007 through June 2010 addressing the security of the passenger and air cargo transportation

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[8]See 49 U.S.C §§ 44903, 44906; 49 C.F.R. pts. 1544-46. TSA also conducts security inspections of foreign and United States–based air carriers with service to the United States from foreign countries to ensure compliance with applicable security requirements, including those set forth in the air carriers' TSA-approved security programs.

[9]ICAO is responsible for the safe, orderly, and efficient development of international civil aviation. ICAO was formed following the 1944 Convention on International Civil Aviation (the Chicago Convention). Signatory nations to the ICAO convention agree to cooperate with other member states to meet standardized international aviation measures. An ICAO standard is a specification for the safety or regularity of international air navigation, with which member states agree to comply; whereas, a recommended practice is any desirable specification for safety, regularity, or efficiency of international air navigation, with which member states are strongly encouraged to comply. Member states are expected to make a genuine effort to comply with recommended practices.

system.[10] For these reports, we reviewed relevant documents related to the programs reviewed and interviewed cognizant DHS and TSA officials. In addition, we obtained updated information in September 2010 on TSA's efforts to address recommendations we made in 2007 to improve its foreign airport assessments program. More detailed information on our scope and methodology appears in our published reports.

This statement is also partly based on observations from our work—conducted from April 2010 through November 2010—assessing the progress that DHS and its component agencies have made in enhancing international aviation, and ongoing work assessing TSA's foreign airport assessment program, which will be issued next year. To conduct this work we reviewed relevant documents related to TSA's passenger screening, air cargo security, and foreign airport assessment programs including TSA aviation security policies and procedures, as well as ICAO aviation security standards and recommended practices, and working group documents. We also interviewed cognizant DHS and TSA program officials, foreign aviation officials from Australia, Canada, the European Union (EU), France, the United Kingdom, and the Netherlands, and representatives from international organizations such as ICAO and international aviation industry associations. While information obtained from our interviews with foreign aviation officials and aviation industry representatives cannot be generalized beyond those contacted because we did not use a probability sampling method to select these officials for interviews, the officials we interviewed provided important perspectives

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[10]See GAO, *Aviation Security: Progress Made but Actions Needed to Address Challenges in Meeting the Air Cargo Screening Mandate*, GAO-10-880T (Washington, D.C.: Jun. 30, 2010); *Aviation Security: TSA Has Made Progress but Faces Challenges in Meeting the Statutory Mandate for Screening Air Cargo on Passenger Aircraft*, GAO-10-446 (Washington, D.C.: Jun. 28, 2010); *Aviation Security: TSA Is Increasing Procurement and Deployment of the Advanced Imaging Technology, but Challenges to This Effort and Other Areas of Aviation Security Remain*, GAO-10-484T (Washington, D.C.: Mar. 17, 2010); *Homeland Security: Better Use of Terrorist Watchlist Information and Improvements in Deployment of Passenger Screening Checkpoint Technologies Could Further Strengthen Security*, GAO-10-401T (Washington, D.C.: Jan. 27, 2010); *Aviation Security: DHS and TSA Have Researched, Developed, and Begun Deploying Passenger Checkpoint Screening Technologies, but Continue to Face Challenges*, GAO-10-128 (Washington, D.C.: Oct. 7, 2009); *Aviation Security: Preliminary Observations on TSA's Progress and Challenges in Meeting the Statutory Mandate for Screening Air Cargo on Passenger Aircraft*, GAO-09-422T (Washington, D.C.: Mar. 18, 2009); *Aviation Security: Foreign Airport Assessments and Air Carrier Inspections Help Enhance Security, but Oversight of These Efforts Can Be Strengthened*, GAO-07-729 (Washington, D.C.: May 11, 2007); and *Aviation Security: Federal Efforts to Secure U.S.-Bound Air Cargo Are in the Early Stages and Could Be Strengthened*, GAO-07-660 (Washington, D.C.: Apr. 30, 2007).

on efforts to enhance international aviation security. All of our prior work, as well as the results of our ongoing work, used for this statement was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

DHS Has Made Progress in Harmonizing International Aviation Security and Facilitating Compliance through Foreign Airport Assessments, but Can Further Strengthen Assessment Efforts

DHS Has Made Progress in Its Efforts to Harmonize International Aviation Security Standards and Practices

DHS has increased its global outreach efforts. Historically, DHS and its components, working with State, have coordinated with foreign partners on an ongoing basis to promote aviation security enhancements through ICAO and other multilateral and bilateral outreach efforts. For example, DHS and TSA have coordinated through multilateral groups such as the European Commission and the Quadrilateral Group—comprising the United States, the EU, Canada, and Australia—to establish agreements to develop commensurate air cargo security systems. On a bilateral basis, the United States has participated in various working groups to facilitate coordination on aviation security issues with several nations, such as those that make up the EU, Canada, and Japan. The United States has also established bilateral cooperative agreements to share information on

security technology with the United Kingdom, Germany, France, and Israel, among others.[11] In addition, TSA has finalized agreements with ICAO to provide technical expertise and assistance to ICAO in the areas of capacity building and security audits, and serves as the United States' technical representative on ICAO's Aviation Security Panel and the panel's various Working Groups.

In the wake of the December 2009 incident, DHS increased its outreach efforts. For example, to address security gaps highlighted by the December incident, DHS has coordinated with Nigeria to deploy Federal Air Marshals on flights operated by U.S. carriers bound for the United States from Nigeria. Further, in early 2010, the Secretary of Homeland Security participated in five regional summits—Africa, the Asia/Pacific region, Europe, the Middle East, and the Western Hemisphere—with the Secretary General of ICAO, foreign ministers and aviation officials, and international industry representatives to discuss current aviation security threats and develop an international consensus on the steps needed to address remaining gaps in the international aviation security system.[12] Each of these summits resulted in a Joint Declaration on Aviation Security in which, generally, the parties committed to work through ICAO and on an individual basis to enhance aviation security. Subsequently, during the September 2010 ICAO Assembly, the 190 member states adopted a Declaration on Aviation Security, which encompassed the principles of the Joint Declarations produced by the five regional summits.[13] Through the declaration, member states recognized the need to strengthen aviation security worldwide and agreed to take nine actions to enhance international cooperation to counter threats to civil aviation, which include, among other things

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[11]For example, in January 2010 the United States signed an Agreement on Science and Technology Cooperation with New Zealand to establish a framework to encourage, develop, and facilitate bilateral coordination in science and technology by means that include, but are not limited to, facilitating a systematic exchange of technologies, personnel, and information, as well as collaborating to develop technologies and prototype systems that assist in countering present and anticipated terrorist actions.

[12]Regional summits were held in Abuja, Nigeria; Tokyo, Japan; Mexico City, Mexico; Abu Dhabi, United Arab Emirates, and Toledo, Spain. In addition, the Secretary of Homeland Security and the ICAO Secretary General met with industry representatives from the International Air Transport Association (IATA) in Geneva, Switzerland.

[13]ICAO's member states—the Assembly—meet at least once every 3 years, at which time members establish ICAO policy for the following 3 years.

- strengthening and promoting the effective application of ICAO Standards and Recommended Practices, with particular focus on Annex 17, and developing strategies to address current and emerging threats;
- strengthening security screening procedures, enhancing human factors, and utilizing modern technologies to detect prohibited articles and support research and development of technology for the detection of explosives, weapons, and prohibited articles in order to prevent acts of unlawful interference;
- developing and implementing strengthened and harmonized measures and best practices for air cargo security, taking into account the need to protect the entire air cargo supply chain; and
- providing technical assistance to states in need, including funding, capacity building, and technology transfer to effectively address security threats to civil aviation, in cooperation with other states, international organizations and industry partners.

TSA has increased coordination with foreign partners to enhance security standards and practices. In response to the August 2006 plot to detonate liquid explosives on board commercial air carriers bound for the United States, TSA initially banned all liquids, gels, and aerosols from being carried through the checkpoint and, in September 2006, began allowing passengers to carry on small, travel-size liquids and gels (3 fluid ounces or less) using a single quart-size, clear plastic, zip-top bag. In November 2006, in an effort to harmonize its liquid-screening standards with those of other countries, TSA revised its procedures to match those of other select nations. Specifically, TSA began allowing 3.4 fluid ounces of liquids, gels, and aerosols onboard aircraft, which is equivalent to 100 milliliters—the amount permitted by the EU and other countries such as Canada and Australia. This harmonization effort was perceived to be a success and ICAO later adopted the liquid, gels, and aerosol screening standards and procedures implemented by TSA and other nations as a recommended practice.

TSA has also worked with foreign governments to draft international air cargo security standards. According to TSA officials, the agency has worked with foreign counterparts over the last 3 years to draft Amendment 12 to ICAO's Annex 17, and to generate support for its adoption by ICAO members. The amendment, which was adopted by the ICAO Council in November 2010, will set forth new standards related to air cargo such as requiring members to establish a system to secure the air

cargo supply chain (the flow of goods from manufacturers to retailers).[14] TSA has also supported the International Air Transport Association's (IATA) efforts to establish a secure supply chain approach to screening cargo for its member airlines and to have these standards recognized internationally.[15] Moreover, following the October 2010 bomb attempt in cargo originating in Yemen, DHS and TSA, among other things, reached out to international partners, IATA, and the international shipping industry to emphasize the global nature of transportation security threats and the need to strengthen air cargo security through enhanced screening and preventative measures. TSA also deployed a team of security inspectors to Yemen to provide that country's government with assistance and guidance on their air cargo screening procedures.

In addition, TSA has focused on harmonizing air cargo security standards and practices in support of its statutory mandate to establish a system to physically screen 100 percent of cargo on passenger aircraft—including the domestic and inbound flights of United States and foreign passenger operations—by August 2010.[16] In June 2010 we reported that TSA has made progress in meeting this mandate as it applies to domestic cargo, but faces several challenges in meeting the screening mandate as it applies to inbound cargo,[17] related, in part, to TSA's limited ability to regulate foreign entities.[18] As a result, TSA officials stated that the agency would not be able to meet the mandate as it applies to inbound cargo by the August 2010 deadline. We recommended that TSA develop a plan, with milestones, for how and when the agency intends to meet the mandate as it applies to inbound cargo. TSA concurred with this recommendation and, in June 2010, stated that agency officials were drafting milestones as part of a plan

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[14]According to ICAO officials, ICAO member states have yet to vote on final approval of Amendment 12. If approved by ICAO members, Amendment 12 to Annex 17 will become effective in March 2011 and applicable in July 2010.

[15]IATA is an international trade body that represents 230 airlines comprising 93 percent of scheduled international air traffic. IATA's approach, called Secure Freight, is an attempt to create an air cargo industry comprising certified secure operators in secure supply chains operating to international cargo security standards recognized by relevant state authorities. A pilot test of the Secure Freight program began in the first half of 2010.

[16]Pub. L. No. 110-53, § 1602, 121 Stat. 266, 477-80 (2007) (codified at 49 U.S.C. § 44901(g)).

[17]For the purposes of this statement, domestic cargo refers to cargo transported by air within the United States and from the United States to a foreign location by both United States and foreign-based air carriers.

[18]GAO-10-446; GAO-10-880T.

that would generally require air carriers to conduct 100 percent screening by a specific date. At a November 2010 hearing before the Senate Committee on Commerce, Science, and Transportation, the TSA Administrator testified that TSA aims to meet the 100 percent screening mandate as it applies to inbound air cargo by 2013.

In November 2010 TSA officials stated that the agency is coordinating with foreign countries to evaluate the comparability of their air cargo security requirements with those of the United States, including the mandated screening requirements for inbound air cargo on passenger aircraft. According to TSA officials, the agency has begun to develop a program that would recognize the air cargo security programs of foreign countries if TSA deems those programs provide a level of security commensurate with TSA's programs. In total, TSA plans to coordinate with about 20 countries, which, according to TSA officials, were selected in part because they export about 90 percent of the air cargo transported to the United States on passenger aircraft. According to officials, TSA has completed a 6-month review of France's air cargo security program and is evaluating the comparability of France's requirements with those of the United States. TSA officials also said that, as of November 2010, the agency has begun to evaluate the comparability of air cargo security programs for the United Kingdom, Israel, Japan, Singapore, New Zealand, and Australia, and plans to work with Canada and several EU countries in early 2011. TSA expects to work with the remaining countries through 2013.

TSA is working with foreign governments to encourage the development and deployment of enhanced screening technologies. TSA has also coordinated with foreign governments to develop enhanced screening technologies that will detect explosive materials on passengers. According to TSA officials, the agency frequently exchanges information with its international partners on progress in testing and evaluating various screening technologies, such as bottled-liquid scanner systems and advanced imaging technology (AIT).[19] In response to the December 2009 incident, the Secretary of Homeland Security has emphasized through outreach efforts the need for nations to develop and deploy enhanced security technologies.

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[19]AITs produce an image of a passenger's body that security personnel use to look for anomalies, such as explosives. See GAO-10-484T.

Following TSA's decision to accelerate the deployment of AIT in the United States, the Secretary has encouraged other nations to consider using AIT units to enhance the effectiveness of passenger screening globally. As a result, several nations, including Australia, Canada, Finland, France, the Netherlands, Nigeria, Germany, Poland, Japan, Ukraine, Russia, Republic of Korea, and the UK, have begun to test or deploy AIT units or have committed to deploying AITs at their airports. For example, the Australian Government has committed to introducing AIT at international terminals in 2011. Other nations, such as Argentina, Chile, Fiji, Hong Kong, India, Israel, Kenya, New Zealand, Singapore, and Spain are considering deploying AIT units at their airports. In addition, TSA hosted an international summit in November 2010 that brought together approximately 30 countries that are deploying or considering deploying AITs at their airports to discuss AIT policy, protocols, best practices, as well as safety and privacy concerns.

However, as discussed in our March 2010 testimony, TSA's use of AIT has highlighted several challenges relating to privacy, costs, and effectiveness that remain to be addressed.[20] For example, because the AIT presents a full-body image of a person during the screening process, concerns have been expressed that the image is an invasion of privacy.[21] Furthermore, as noted in our March 2010 testimony, it remains unclear whether the AIT would have been able to detect the weapon used in the December 2009 incident based on the preliminary TSA information we have received.[22] We will continue to explore these issues as part of our ongoing review of TSA's AIT deployment, and expect the final report to be issued in the summer of 2011.[23]

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[20]GAO-10-484T.

[21]In October 2010 TSA adopted "enhanced pat down" procedures for passengers who decline to be screened using the AIT, which have also raised privacy concerns.

[22]GAO-10-484T.

[23]Our ongoing review of TSA's procurement and deployment of AIT units is requested by Senator George V. Voinovich and Representative John Mica, Ranking-Republican Member, House Committee on Transportation and Infrastructure.

DHS Has Made Progress in Its Efforts to Facilitate Compliance with ICAO Standards through Foreign Airport Assessments but Can Further Strengthen Its Efforts

TSA conducts foreign airport assessments. TSA efforts to assess security at foreign airports—airports served by U.S. aircraft operators and those from which foreign air carriers operate service to the United States—also serve to strengthen international aviation security. Through TSA's foreign airport assessment program, TSA utilizes select ICAO standards to assess the security measures used at foreign airports to determine if they maintain and carry out effective security practices.[24] TSA also uses the foreign airport assessment program to help identify the need for, and secure, aviation security training and technical assistance for foreign countries. In addition, during assessments, TSA provides on-site consultations and makes recommendations to airport officials or the host government to immediately address identified deficiencies. In our 2007 review of TSA's foreign airport assessment program,[25] we reported that of the 128 foreign airports that TSA assessed during fiscal year 2005, TSA found that 46 (about 36 percent) complied with all ICAO standards, whereas 82 (about 64 percent) did not meet at least one ICAO standard.[26]

In our 2007 review we also reported that TSA had not yet conducted its own analysis of its foreign airport assessment results, and that additional controls would help strengthen TSA's oversight of the program. Moreover, we reported, among other things, that TSA did not have controls in place to track the status of scheduled foreign airport assessments, which could make it difficult for TSA to ensure that scheduled assessments are completed. We also reported that TSA did not consistently track and

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[24]For the purposes of this testimony we refer to both standards and recommended practices as standards. TSA officials said that when conducting airport assessments they focus on 17 ICAO standards the agency deems most critical. TSA assessment teams coordinate with State to arrange briefings for host government and airport officials at the beginning of an assessment and to schedule exit briefings for the officials at the end of the assessment, during which a synopsis of the assessment results is presented. TSA also coordinates with State to provide aviation security training to host nations. For example, State uses TSA instructors to teach an airport security course that is provided to officials from host nations through the department's Anti-Terrorism Assistance (ATA) program.

[25]GAO-07-729.

[26]For the 82 foreign airports that did not meet at least 1 ICAO standard, the average number of standards not met was about 5, and the number of standards not met by an individual airport ranged from 1 to 22. The most common area of noncompliance for foreign airports was related to quality control—mechanisms to assess and address security vulnerabilities at airports. After the Secretary of Homeland Security determined that 2 of the 128 foreign airports TSA assessed were not maintaining and carrying out effective security measures, DHS notified the general public of these determinations by the Secretary in accordance with 49 U.S.C. § 44907(d). In 2007 TSA assessed security against 86 of 106 ICAO aviation security standards and practices.

document host government progress in addressing security deficiencies identified during TSA airport assessments. As such, we made several recommendations to help TSA strengthen oversight of its foreign airport assessment program, including, among other things, that TSA develop controls to track the status of foreign airport assessments from initiation through completion; and develop a standard process for tracking and documenting host governments' progress in addressing security deficiencies identified during TSA assessments. TSA agreed with our recommendations and provided plans to address them. Near the end of our 2007 review, TSA had begun work on developing an automated database to track airport assessment results.[27] In September 2010 TSA officials told us that they are now exploring ways to streamline and standardize that automated database, but will continue to use it until a more effective tracking mechanism can be developed and deployed. We plan to further evaluate TSA's implementation of our 2007 recommendations during our ongoing review of TSA's foreign airport assessment program, which we plan to issue in the fall of 2011.

Challenges Related to the Harmonization Process and TSA's Foreign Airport Assessment Program May Affect DHS's Progress

Challenges Related to Harmonization

A number of key challenges, many of which are outside of DHS's control, could impede its ability to enhance international aviation security standards and practices. Agency officials, foreign country representatives, and international association stakeholders we interviewed said that these challenges include, among other things, nations' voluntary participation in harmonization efforts, differing views on aviation security threats, varying global resources, and legal and cultural barriers. According to DHS and TSA officials, these are long-standing global challenges that are inherent in

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[27]GAO-07-729.

diplomatic processes such as harmonization, and will require substantial and continuous dialogue with international partners. As a result, according to these officials, the enhancements that are made will likely occur incrementally, over time.

Harmonization depends on voluntary participation. The framework for developing and adhering to international aviation standards is based on voluntary efforts from individual states. While TSA may require that foreign air carriers with operations to, from, or within the United States comply with any applicable U.S. emergency amendments to air carrier security programs, foreign countries, as sovereign nations, generally cannot be compelled to implement specific aviation security standards or mutually accept other countries' security measures.[28] International representatives have noted that national sovereignty concerns limit the influence the United States and its foreign partners can have in persuading any country to participate in international harmonization efforts. As we reported in 2007 and 2010, participation in ICAO is voluntary.[29] Each nation must initiate its own involvement in harmonization, and the United States may have limited influence over its international partners.

Countries view aviation security threats differently. As we reported in 2007 and 2010, some foreign governments do not share the United States government's position that terrorism is an immediate threat to the security of their aviation systems, and therefore may not view international aviation security as a priority.[30] For example, TSA identified the primary threats to inbound air cargo as the introduction of an explosive device in cargo loaded on a passenger aircraft, and the hijacking of an all-cargo aircraft for its use as a weapon to inflict mass destruction. However, not all foreign governments agree that these are the primary threats to air cargo or believe that there should be a distinction between the threats to passenger air carriers and those to all-cargo carriers. According to a prominent industry association as well as foreign government representatives with whom we spoke, some countries view aviation security enhancement efforts differently because they have not been a target of previous aviation-based terrorist incidents, or for other

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[28]See 49 U.S.C § 44906; 49 C.F.R. pt. 1546.

[29]GAO-07-660 and GAO-10-446.

[30]GAO-07-660 and GAO-10-446.

reasons, such as overseeing a different airport infrastructure with fewer airports and less air traffic.

Resource availability affects security enhancement efforts. In contrast to more developed countries, many less developed countries do not have the infrastructure or financial or human resources necessary to enhance their aviation security programs. For example, according to DHS and TSA officials, such countries may find the cost of purchasing and implementing new aviation security enhancements, such as technology, to be prohibitive. Additionally, some countries implementing new policies, practices, and technologies may lack the human resources—for example, trained staff—to implement enhanced security measures and oversee new aviation security practices. Some foreign airports may also lack the infrastructure to support new screening technologies, which can take up a large amount of space. These limitations are more common in less developed countries, which may lack the fiscal and human resources necessary to implement and sustain enhanced aviation security measures. With regard to air cargo, TSA officials also cautioned that if TSA were to impose strict cargo screening standards on all inbound cargo, it is likely many nations would be unable to meet the standards in the near term. Imposing such screening standards in the near future could result in increased costs for international passenger travel and for imported goods, and possible reductions in passenger traffic and foreign imports. According to TSA officials, strict standards could also undermine TSA's ongoing cooperative efforts to develop commensurate security systems with international partners.

To help address the resource deficit and build management capacity in other nations, the United States provides aviation security assistance—such as training and technical assistance—to other countries. TSA, for example, works in various ways with State and international organizations to provide aviation security assistance to foreign partners. In one such effort, TSA uses information from the agency's foreign airport assessments to identify a nation's aviation security training needs and provide support. In addition, TSA's Aviation Security Sustainable International Standards Team (ASSIST), comprised of security experts, conducts an assessment of a country's aviation security program at both the national and airport level and, based on the results, suggests action items in collaboration with the host nation. State also provides aviation security assistance to other countries, in coordination with TSA and foreign partners through its Anti-Terrorism Assistance (ATA) program. Through this program, State uses a needs assessment—a snapshot of a country's antiterrorism capability—to evaluate prospective program participants and provide needed training,

equipment, and technology in support of aviation security, among other areas.[31] State and TSA officials have acknowledged the need to develop joint coordination procedures and criteria to facilitate identification of global priorities and program recipients. We will further explore TSA and State efforts to develop mechanisms to facilitate interagency coordination on capacity building through our ongoing work.

Legal and cultural factors can also affect harmonization. Legal and cultural differences among nations may hamper DHS's efforts to harmonize aviation security standards. For example, some nations, including the United States, limit, or even prohibit the sharing of sensitive or classified information on aviation security procedures with other countries. Canada's Charter of Rights and Freedoms, which limits the data it can collect and share with other nations, demonstrates one such impediment to harmonization. According to TSA officials, the United States has established agreements to share sensitive and classified information with some countries; however, without such agreements, TSA is limited in its ability to share information with its foreign partners. Additionally, the European Commission reports that several European countries, by law, limit the exposure of persons to radiation other than for medical purposes, a potential barrier to acquiring some passenger screening technologies, such as AIT.[32]

Cultural differences also serve as a challenge in achieving harmonization because aviation security standards and practices that are acceptable in one country may not be in another. For example, international aviation officials explained that the nature of aviation security oversight varies by country—some countries rely more on trust and established working relationships to facilitate security standard compliance than direct government enforcement. Another example of a cultural difference is the

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[31]The needs assessment, performed by State personnel along with a team of interagency subject-matter experts, is conducted at several levels, including tactical capabilities (people and resources), operational management capabilities (overall management and ability), and strategic capabilities.

[32]According to the European Commission, these countries are the Czech Republic, France, Germany, and Italy. GAO has not independently verified these potential legal impediments. Both TSA and the European Commission report that use of the two types of AIT units deployed will expose individuals to low doses of radiation. For example, the x-ray dose received from the backscatter system is equivalent to the radiation received in two minutes of airplane flight, while the energy projected by the millimeter wave system is 100,000 times less than a cell phone transmission.

extent to which countries accept the images AIT units produce. AIT units produce a full-body image of a person during the screening process; to varying degrees, governments and citizens of some countries, including the United States, have expressed concern that these images raise privacy issues. TSA is working to address this issue by evaluating possible display options that would include a "stick figure" or "cartoon-like" form to provide enhanced privacy protection to the individual being screened while still allowing the unit operator or automated detection algorithms to detect possible threats. Other nations, such as the Netherlands, are also testing the effectiveness of this technology.

Although DHS has made progress in its efforts to harmonize international aviation security standards and practices in key areas such as passenger and air cargo screening, officials we interviewed said that there remain areas in which security measures vary across nations and would benefit from harmonization efforts. For example, as we reported in 2007,[33] the United States requires all passengers on international flights who transfer to connecting flights at United States airports to be rescreened prior to boarding their connecting flight.[34] In comparison, according to EU and ICAO officials, the EU has implemented "one-stop security," allowing passengers arriving from EU and select European airports to transfer to connecting flights without being rescreened. Officials and representatives told us that although there has been ongoing international discussion on how to more closely align security measures in these and other areas, additional dialogue is needed for countries to better understand each others' perspectives. According to the DHS officials and foreign representatives with whom we spoke, these and other issues that could benefit from harmonization efforts will continue to be explored through ongoing coordination with ICAO and through other multilateral and bilateral outreach efforts.

Challenges Related to TSA's Foreign Airport Assessment Program

Our 2007 review of TSA's foreign airport assessment program identified challenges TSA experienced in assessing security at foreign airports against ICAO standards and recommended practices, including a lack of

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[33]GAO-07-729.

[34]For example, a passenger traveling from Frankfurt, Germany, to Chicago, Illinois, and changing planes in New York City, must be rescreened, along with the passenger's checked baggage, prior to boarding the connecting flight to Chicago. See 49 U.S.C. § 44901(a), which requires that TSA provide for the screening of such passengers.

available inspector resources and host government concerns, both of which may affect the agency's ability to schedule and conduct assessments for some foreign airports.[35] We reported that TSA deferred 30 percent of its scheduled foreign airport visits in 2005 due to the lack of available inspectors, among other reasons.[36] TSA officials said that in such situations they sometimes used domestic inspectors to conduct scheduled foreign airport visits, but also stated that the use of domestic inspectors was undesirable because these inspectors lacked experience conducting assessments in the international environment.[37] In September 2010 TSA officials told us that they continue to use domestic inspectors to assist in conducting foreign airport assessments and air carrier inspections—approximately 50 domestic inspectors have been trained to augment the efforts of international inspectors. We also previously reported that representatives of some foreign governments consider TSA's foreign airport assessment program an infringement of their authority to regulate airports and air carriers within their borders. Consequently, foreign countries have withheld access to certain types of information or denied TSA access to areas within an airport, limiting the scope of TSA's assessments. We plan to further assess this issue, as well as other potential challenges, as part of our ongoing review of TSA's foreign airport assessment program, which we plan to issue in the fall of 2011.

Mr. Chairman, this completes my prepared statement. I look forward to responding to any questions you or other members of the committee may have at this time.

Contacts and Acknowledgments

For additional information about this statement, please contact Stephen M. Lord at (202) 512-4379 or lords@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement.

In addition to the contact named above, staff who made key contributions to this statement were Steve D. Morris, Assistant Director; Carissa D.

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[35]GAO-07-729.

[36]This included visits for both airport assessments and air carrier inspections. See GAO-07-729.

[37]Domestic inspectors are inspectors who typically conduct security inspections at U.S. airports.

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