



February 2015

# AVIATION SECURITY

## TSA Should Take Additional Action to Obtain Stakeholder Input when Modifying the Prohibited Items List

## Why GAO Did This Study

As part of its responsibilities for securing civil aviation, TSA ensures that all passengers and their accessible property are screened and prohibits individuals from carrying onto aircraft items that it determines to be a threat. TSA maintains a public list of such items, known as the Prohibited Items List, and updates it as necessary. In March 2013, TSA announced it would modify the PIL to allow small knives and certain sporting equipment onto aircraft, stating the change would result in more efficient security screening. However, several aviation industry groups opposed the decision, leading TSA to reverse its decision to implement the change. GAO was asked to review TSA's procedures for modifying the PIL.

This report examines, among other issues, (1) on what basis TSA modifies the PIL and the extent to which TSA assessed risk when considering recent modifications to the PIL, and (2) the extent to which TSA involved stakeholders when considering these modifications. GAO reviewed TSA's standard operating procedures, risk assessment, documentation of its decisions and stakeholder outreach, and interviewed TSA officials at six airports. This is a public version of a report with Sensitive Security Information that GAO issued in December 2014. Information TSA deemed sensitive has been redacted.

## What GAO Recommends

GAO recommends that TSA establish a formal process for soliciting input from relevant external stakeholders on proposed modifications to the PIL before making changes to it. DHS agreed with the recommendation.

View [GAO-15-261](#). For more information, contact Jennifer A. Grover at (202) 512-7141 or [groverj@gao.gov](mailto:groverj@gao.gov).

## AVIATION SECURITY

### TSA Should Take Additional Action to Obtain Stakeholder Input when Modifying the Prohibited Items List

## What GAO Found

Transportation Security Administration (TSA) officials stated that TSA considers four factors when determining whether to make modifications to the Prohibited Items List (PIL), but the agency did not fully assess risk when considering its recent proposed PIL modifications, as GAO has previously recommended. TSA generally considers the following four factors when determining whether to modify the PIL: (1) the security risks posed by each carry-on item, (2) opportunities to improve screening operations and passenger experience, (3) harmonization with international security standards and practices, and (4) stakeholder perspectives. While TSA considered these four factors when making its March 5, 2013, decision to allow small knives and certain sporting equipment on aircraft, TSA officials also reasoned that the proposed change could help screening personnel focus less on lower-threat items, such as small knives, and more on higher-threat items, such as explosives, thereby potentially increasing security for passengers. However, TSA did not conduct sufficient analysis to show that the increased risk of allowing small knives on aircraft—as determined in its risk assessment—would be offset by a resulting reduction in risk from improved screening for explosives. GAO has previously recommended that TSA strengthen its evaluation methods for operationally testing proposed modifications to checkpoint screening procedures, including changes to the PIL. However, TSA has not consistently implemented this recommendation. Conducting additional risk analysis would have allowed TSA to actually measure whether airport screeners would be better able to identify explosives if they no longer had to screen for small knives. GAO continues to believe that TSA should develop and apply sound evaluation methods when considering modifications to the PIL, as GAO recommended in April 2007.

TSA did not effectively solicit feedback on its 2013 PIL decision from relevant external stakeholders, some of whom subsequently expressed strong opposition to the decision to remove small knives from the PIL. For example, prior to announcing its decision, TSA did not coordinate with or obtain input from the Aviation Security Advisory Committee, which is TSA's primary external advisory group for aviation security matters and whose membership includes various airline industry associations. Some relevant stakeholders, such as flight attendant groups—from whom TSA did not adequately solicit feedback—subsequently expressed strong opposition to the proposal, which contributed to TSA reversing its decision to implement the change after having already trained screening personnel for its implementation. Having a defined process and associated procedures in place to communicate with relevant stakeholders earlier in the decision-making process could allow TSA to ensure appropriate consideration of their perspectives in the decision-making process. Use of a defined process and associated procedures could also allow TSA to better avoid rescission of any future changes after investing resources in training screening personnel and informing the general public of the change—as happened in the case of TSA's 2013 PIL decision.

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## Abbreviations

AFA	Association of Flight Attendants
AIT	advanced imaging technology
ALPA	Airline Pilots Association
ASAC	Aviation Security Advisory Committee
BDO	Behavior detection officer
DHS	Department of Homeland Security
ETD	explosives trace detection
FACA	Federal Advisory Committee Act
FAMS	Federal Air Marshal Service
FFDOA	Federal Flight Deck Officers Association
FLEOA	Federal Law Enforcement Officers Association
HSAC	Homeland Security Advisory Council
ICAO	International Civil Aviation Organization
ID	identification
IED	improvised explosive device
OSO	Office of Security Operations
OTWE	Office of Training Workforce and Engagement
PIL	Prohibited Items List
TSA	Transportation Security Administration
TSO	transportation screening officer
VAP	voluntarily abandoned property

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February 4, 2015

The Honorable Michael T. McCaul  
Chairman  
Committee on Homeland Security  
House of Representatives

The Honorable Frank A. LoBiondo  
Chairman  
Subcommittee on Aviation  
Committee on Transportation and Infrastructure  
House of Representatives

The Honorable John Katko  
Chairman  
Subcommittee on Transportation Security  
Committee on Homeland Security  
House of Representatives

The Honorable Richard Hudson  
House of Representatives

The Transportation Security Administration (TSA), within the Department of Homeland Security, is responsible for, among other things, securing the nation's civil aviation system while also facilitating the movement of passengers and commerce. One measure TSA uses to secure the aviation environment is to prohibit individuals from carrying into the sterile area of an airport or onto a commercial passenger aircraft any item that TSA has determined to be a threat to the aircraft and its passengers.<sup>1</sup> To help implement this measure, TSA maintains a list—the Prohibited Items List (PIL)—that identifies for the traveling public those items that may not be carried through an airport security checkpoint or on board an aircraft,

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<sup>1</sup>The sterile area is the portion of an airport defined in an airport's security program that provides passengers access to boarding aircraft and to which access is generally controlled by TSA through the screening of persons and property. See 49 C.F.R. § 1540.5. For purposes of this report, references to "commercial passenger aircraft" (or "aircraft" or "air carriers" in general) include U.S.- and foreign-flagged air carrier operations that, in accordance with their respective security programs, must ensure that all passengers are subject to an appropriate level of screening before traveling to, from, or within the United States. See generally 49 C.F.R. pts. 1544-46.

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and trains transportation security officers (TSO) to screen passengers entering the checkpoints for such items.<sup>2</sup> TSA ensures the PIL is effectively carried out and implemented at the checkpoint by TSOs who are trained on the use of various technologies and procedures to screen passengers and their accessible property for these prohibited items at airport checkpoints.<sup>3</sup>

Since assuming responsibility for aviation security from the Federal Aviation Administration following the terrorist attacks of September 11, 2001, TSA has enforced and made several modifications to the PIL. For example, in December 2005, TSA began permitting passengers to carry small scissors and tools onto aircraft based on its review of threat information that indicated these items do not pose a high risk to the aviation system, among other considerations.<sup>4</sup> At the time, some industry representatives raised concerns that allowing sharp objects onto planes would put flight crews at risk. Stakeholder concerns over TSA's decision to allow these objects onto aircraft resulted in Congress asking the TSA Administrator to testify on the agency's rationale for the change, and GAO to assess the impact of the change on public safety and screening operations. We reported on this assessment in April 2007.<sup>5</sup> Most recently, on March 5, 2013, as part of efforts to implement a risk-based security approach to passenger screening, TSA announced that it would further modify the PIL to allow passengers to carry small knives and certain

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<sup>2</sup>For purposes of this report, and unless otherwise indicated, any references to TSOs, who are TSA employees, include screeners employed by a private company providing security screening services as part of TSA's Screening Partnership Program. See 49 U.S.C. § 44920.

<sup>3</sup>For purposes of this report, we are focusing on those items for which TSA prohibits a passenger from carrying on his or her person or accessible property and not, for example, items prohibited from carriage in checked baggage.

<sup>4</sup>See 70 Fed. Reg. 72,930 (Dec. 8, 2005).

<sup>5</sup>We issued a report on the impact of the Prohibited Items List changes on public safety and screening operations in 2007. See GAO, *Aviation Security: TSA's Change to Its Prohibited Items List Has Not Resulted in Any Reported Security Incidents, but the Impact of the Change on Screening Operations Is Inconclusive*, [GAO-07-623R](#) (Washington, D.C.: Apr 25, 2007).

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types of sporting equipment onto aircraft.<sup>6</sup> Several industry associations, including flight attendant associations, actively opposed the change, and on March 21, 2014, 133 Members of Congress signed a letter asking the TSA Administrator not to go through with implementing the change. On April 22, 2013, 3 days before the PIL change was to take effect, TSA postponed its implementation so it could obtain further input from various industry representatives and other stakeholder groups. On June 5, 2013, TSA announced that, after extensive engagement with various aviation stakeholder groups, it would not be implementing the proposed change and would continue to maintain and enforce the ban on these items as included on the current PIL.

In a 2007 report on TSA's changes to passenger screening procedures, we found that TSA had a reasonable approach to modifying checkpoint screening procedures, which include screening for prohibited items (referred to in this report as the PIL), but that TSA could strengthen its evaluation of proposed modifications to better justify its decisions.<sup>7</sup> For example, TSA stated that the purpose of its December 2005 decision to allow passengers to carry small scissors and tools onto aircraft was to shift TSO focus from items considered by TSA to pose a low threat (small scissors and tools) to items considered to pose a high threat, such as improvised explosive devices (IED), as well as better allocate TSA resources to implement other security measures that target IEDs.<sup>8</sup>

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<sup>6</sup>Specifically, TSA proposed to permit the carriage of knives that do not lock, have blades that are 2.36 inches or less in length, and are less than 0.5 inch in width, and do not have molded grip or nonslip handles, as well as novelty-sized toy bats, billiard cues, ski poles, hockey sticks, lacrosse sticks, and two golf clubs on their person or in their accessible property.

<sup>7</sup>See GAO, *Aviation Security: Risk, Experience, and Customer Concerns Drive Changes to Airline Passenger Screening Procedures, but Evaluation and Documentation of Proposed Changes Could Be Improved*, GAO-07-634 (Washington, D.C.: April 2007). In this report, references to the PIL include the checkpoint screening procedures TSOs implement to identify and screen for prohibited items as well as the interpretive rule published on occasion in the *Federal Register* and the list of prohibited items maintained on TSA's website—<http://www.tsa.gov/traveler-information/prohibited-items>—through which the traveling public is informed of those items that may or may not be carried through a screening checkpoint and on board an aircraft.

<sup>8</sup>See 70 Fed. Reg. at 72,930-31. Specifically, TSA modified the list of items prohibited and permitted on aircraft by allowing metal scissors with pointed tips and a cutting edge of 4 inches or less, as measured from the fulcrum, and certain small tools of 7 inches or less, including screwdrivers, wrenches, and pliers, to pass through the passenger screening checkpoint.

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However, we reported that TSA did not conduct the necessary analysis of the data it had collected to determine the extent to which the removal of small scissors and tools from the PIL could free up TSO resources to screen for higher-risk items, nor did TSA analyze other relevant factors such as the amount of time taken to search for small scissors and tools and the number of TSOs conducting these searches. As a result, we recommended that TSA, when operationally testing proposed modifications to its checkpoint screening procedures, such as the PIL, develop sound evaluation methods to assist it in determining whether proposed procedures would achieve their intended result, such as enhancing the agency's ability to better detect certain prohibited items, such as IEDs, and free up existing TSO resources. TSA concurred with the recommendation but has not fully implemented it.

Given the importance of TSA's PIL for aviation security and the safe and efficient movement of passengers and security operations, and in light of TSA's 2013 decision not to remove small knives and certain types of sporting equipment from the PIL, you asked us to assess the manner in which TSA considers making changes to the PIL. Accordingly, this report addresses the following questions: (1) On what basis does TSA modify the PIL, and to what extent did TSA assess risk and involve stakeholders when assessing whether to remove small knives and certain sporting equipment from the PIL? (2) How are transportation security officers trained to implement modifications to the PIL at the checkpoint?

This report is a public version of the prior sensitive report that we provided to you. TSA deemed some of the information in the prior report as Sensitive Security Information, which must be protected from public disclosure.<sup>9</sup> Therefore, this report omits sensitive information about TSA's risk assessment of various prohibited items. Although the information provided in this report is more limited and less specific, it addresses the same questions as the sensitive report. Also, the overall methodology used for both reports is the same.

To determine the basis upon which TSA decides to modify the PIL, we reviewed and assessed TSA's criteria and process for making changes to the list, including the factors TSA uses to guide its decision making. We obtained documentation and interviewed agency officials about proposed

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<sup>9</sup> See 49 C.F.R. pt. 1520.



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modifications, including how TSA considered risk information, stakeholder perspectives, and impact on the efficiency of airport operations and customer service during its process for considering changes to the PIL. Specifically, to assess the extent to which TSA considered risk in its most recent proposal to modify the PIL to allow small knives and certain types of sporting equipment aboard aircraft, we reviewed documentation—including decision memos—detailing the risk assessment conducted by TSA that led to its March 5, 2013, decision to remove small knives from the PIL. For the purposes of this report we will refer to this proposed PIL change as the “small knives” PIL change. We evaluated TSA’s risk assessment of the PIL detailed in this documentation against Department of Homeland Security (DHS) guidance on managing and assessing risk to determine the extent to which TSA’s risk assessment aligned with established risk management principles.<sup>10</sup> We also interviewed TSA officials from the Office of Security Operations and the Office of the Chief Risk Officer to discuss details of how they conducted the risk assessment that resulted in the small knives decision. In addition, to aid our understanding of how TSA modifies checkpoint screening procedures—such as the PIL—or to understand how it trains TSOs when making modifications, we obtained and reviewed TSA’s standard operating procedures related to passenger checkpoint screening to determine TSA’s process for screening for prohibited items.<sup>11</sup> Last, to obtain the perspectives of TSA airport personnel on PIL modifications, including their involvement in the modification process, and the impact of PIL modifications on field operations, we visited six airports of varying sizes to include two category X airports and one each from categories I through

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<sup>10</sup>Department of Homeland Security, *National Infrastructure Protection Plan: Partnering to Enhance Protection and Resiliency* (Washington, D.C.: January 2009). DHS subsequently updated its *National Infrastructure Protection Plan* in 2013 (*National Infrastructure Protection Plan: Partnering for Critical Infrastructure Security and Resilience* [Washington, D.C.: 2013]); however, we evaluated the 2009 version of the plan since that was the version in effect when TSA was performing its risk assessment of the PIL.

<sup>11</sup>TSA has developed passenger checkpoint screening standard operating procedures that establish the processes and standards by which TSOs are to screen passengers and their carry-on items at screening checkpoints. TSA requires that all screeners, whether employed by TSA or by a private company as part of the Screening Partnership Program, follow the same standard operating procedures.

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IV.<sup>12</sup> Although our selection of airports is not a representative sample of airports, this variance in size allowed us to gain perspectives from airports with different levels of passenger throughput. During our visits, we interviewed federal security directors, TSA security managers, supervisors, TSOs, and airport officials regarding their views on the impacts of TSA's proposed modifications of the PIL on airport security.

To assess the extent to which TSA considered the views of stakeholders in its most recent decision to modify the PIL, we contacted seven relevant stakeholder groups—including commercial aviation organizations, industry groups, and federal law enforcement. We contacted these groups to determine the extent to which TSA consulted with them prior to the public announcement of its most recent decision to remove small knives from the PIL, including their overall perspectives on the PIL and TSA's process for modifying it.<sup>13</sup> Also, we reviewed documentation such as stakeholder comments on TSA's intra-agency online forum for employee feedback, TSA's stakeholder meeting minutes, and other summaries detailing contact with stakeholders. Additionally, we interviewed TSA headquarters officials to determine their processes for coordinating with aviation stakeholders prior to announcing changes to the PIL. We evaluated TSA's process and practices regarding coordination with stakeholders against internal control standards for information and communications that include coordination with external

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<sup>12</sup>TSA classifies commercial airports in the United States into one of five security risk categories (X, I, II, III, and IV) based on various factors, such as the total number of takeoffs and landings annually, the extent of passenger screening at the airport, and other security considerations. In general, category X airports have the largest number of passenger boardings, and category IV airports have the smallest. The six airports we visited were (1) Athens Ben Epps Airport (Athens, GA), (2) Augusta Regional Airport (Augusta, GA), (3) Dallas/Fort Worth International Airport (Texas), (4) Hartsfield-Jackson Atlanta International Airport (Atlanta, GA), (5) Love Field Airport (Dallas, TX), and (6) Waco Regional Airport (Waco, TX). We did not visit any airports participating in the Screening Partnership Program as part of this review. For purposes of this report, the term "commercial airports" encompasses all airports operating in accordance with TSA-approved security programs. See 49 C.F.R. pt. 1542.

<sup>13</sup>Specifically, we contacted (1) Airlines for America (representing airline executives), (2) Airports Council International-North America (representing regional and state government owners/operators of commercial airports), (3) the Association of Flight Attendants, (4) the Airline Pilots Association (ALPA), (5) FlyersRights.org (a fliers' rights consumer group), (6) the Federal Law Enforcement Officers Association (FLEOA), and (7) the Federal Flight Deck Officers Association (FFDOA).

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stakeholders.<sup>14</sup> With respect to the decision to allow small knives on aircraft, we also evaluated TSA actions on stakeholder coordination against its internal decision memos citing the importance of, and need for, full coordination with certain aviation stakeholder groups.

To determine how TSOs are trained to implement modifications to the PIL once they are approved, we obtained documentation and interviewed agency officials from TSA's Office of Training and Workforce Engagement about the steps TSA takes to ensure that TSOs are informed of modifications to the PIL and trained to implement them at passenger checkpoints. We reviewed training materials, including briefing documents and training aids, used to prepare TSOs to implement the small knives decision. During our airport visits, we also obtained the perspectives of TSA personnel at the airports on how they are prepared to implement changes to the PIL. Because we did not select TSA employees and airports at random for our interviews, the views obtained during these visits are not generalizable to TSA operations at all airports nationwide. However, the information we obtained from these interviews provided insight into the views various TSA employee groups have of the training programs TSA provides for TSOs leading up to a change to the PIL.

We conducted this performance audit from January 2014 to February 2015, 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.

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## Background

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### TSA Authority

As part of its responsibilities for civil aviation security, TSA enforces law and regulations requiring that passengers be screened to ensure that potential weapons, explosives, and incendiaries are not carried into an

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<sup>14</sup>GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: November 1999).

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airport sterile area or on board a passenger aircraft.<sup>15</sup> To provide the general public with guidance on the types of property TSA policy prohibits from being brought into airport sterile areas and on board aircraft, TSA publishes, and on occasion has updated, an interpretive rule in the Federal Register—known as the PIL—that, among other things, lists items prohibited from being carried on a passenger’s person or in the passenger’s accessible property into airport sterile areas and into the cabins of passenger aircraft.<sup>16</sup> TSA also maintains a current list of prohibited items on its public website.<sup>17</sup> The list is not intended to be exhaustive, and TSOs may exercise discretion, informed by the categories and examples included in the PIL and their standard operating procedures, to prohibit an individual from carrying an item through the checkpoint if in the screener’s determination the item could pose a threat to transportation (i.e., whether it is or could be a weapon, explosive, or incendiary) regardless of whether it is or is not on the PIL. TSA has divided prohibited items into nine categories. Table 1 provides a description of the items included in the nine categories. Individuals are prohibited from carrying these items into an airport sterile area or on board an aircraft either in their carry-on bags or on their person.

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<sup>15</sup>See 49 U.S.C. §§ 44901-02 (providing that all passengers and property be screened prior to boarding aircraft and that air carriers may not transport passengers who do not consent to a search of their person or property). See also 49 C.F.R. §§ 1540.111, 1544.201.

<sup>16</sup>In general, interpretive rules are issued by an agency to clarify or explain existing laws or regulations and do not create substantive or new obligations upon affected parties. TSA first issued an interpretive rule listing prohibited items in February 2003. See 68 Fed. Reg. 7444 (Feb. 14, 2003). In addition to listing prohibited items, the interpretive rule informs the general public of permitted items as well as items prohibited in an airport sterile area but that are permitted in checked baggage. See 70 Fed. Reg. at 72,933-94.

<sup>17</sup>This information is available (and updated) via TSA’s website, at <http://www.tsa.gov/traveler-information/prohibited-items>.

**Table 1: Categories and Descriptions of Prohibited Items as of December 8, 2014**

<b>Category of prohibited item</b>	<b>Description of items included in the category</b>
Sharp objects	Box cutters; ice axes and ice picks; knives, except for plastic or round-bladed butter knives; meat cleavers; razor-type blades, including box cutters, razor blades not in a cartridge (excluding safety razors); sabers; all scissors except those that are not metal and do not have pointed tips, and which have a blade length less than 4 inches as measured from the fulcrum; swords
Sporting goods	Baseball bats, bows and arrows, cricket bats, golf clubs, hockey sticks, lacrosse sticks, pool cues, ski poles, spearguns
Guns and firearms	Ammunition; BB guns; compressed air guns, including paintball markers; firearms; flare guns; flares; gun lighters; gunpowder, including black powder and percussion caps; parts of guns and firearms; pellet guns; realistic replicas of firearms; starter pistols
Martial arts and self-defense items	Billy clubs, blackjacks, brass knuckles, kubatons, Mace/pepper spray, martial arts weapons, nightsticks, nunchucks, stun guns/shocking devices, throwing stars
Tools	Axes and hatchets; cattle prods; crowbars; hammers; drills and drill bits, including cordless portable power drills; saws, including cordless portable power saws; other tools greater than 7 inches in length, including pliers, screwdrivers, and wrenches
Explosive materials	Blasting caps, dynamite, fireworks, flares in any form, hand grenades, plastic explosives, realistic replicas of explosives
Flammable Items	Aerosols, any, except for personal care or toiletries in limited quantities; fuels, including cooking fuels and any flammable liquid fuel; gasoline; gas torches; lighter fluid; torch lighters; strike-anywhere matches; flammable paints; turpentine and paint thinner; realistic replicas of incendiaries
Disabling chemicals and other dangerous items	Chlorine for pools and spas; fire extinguishers and other compressed gas cylinders; liquid bleach; spillable batteries, except those in wheelchairs; spray paint; tear gas
Other Items	Gel-type candles, flammable liquid, gel, or aerosol

Source: Transportation Security Administration. | GAO-15-261

## Passenger Checkpoint Screening

At passenger screening checkpoints, TSOs inspect individuals and property as part of the passenger screening process to deter and prevent the carriage of any unauthorized explosive, incendiary, weapon, or other

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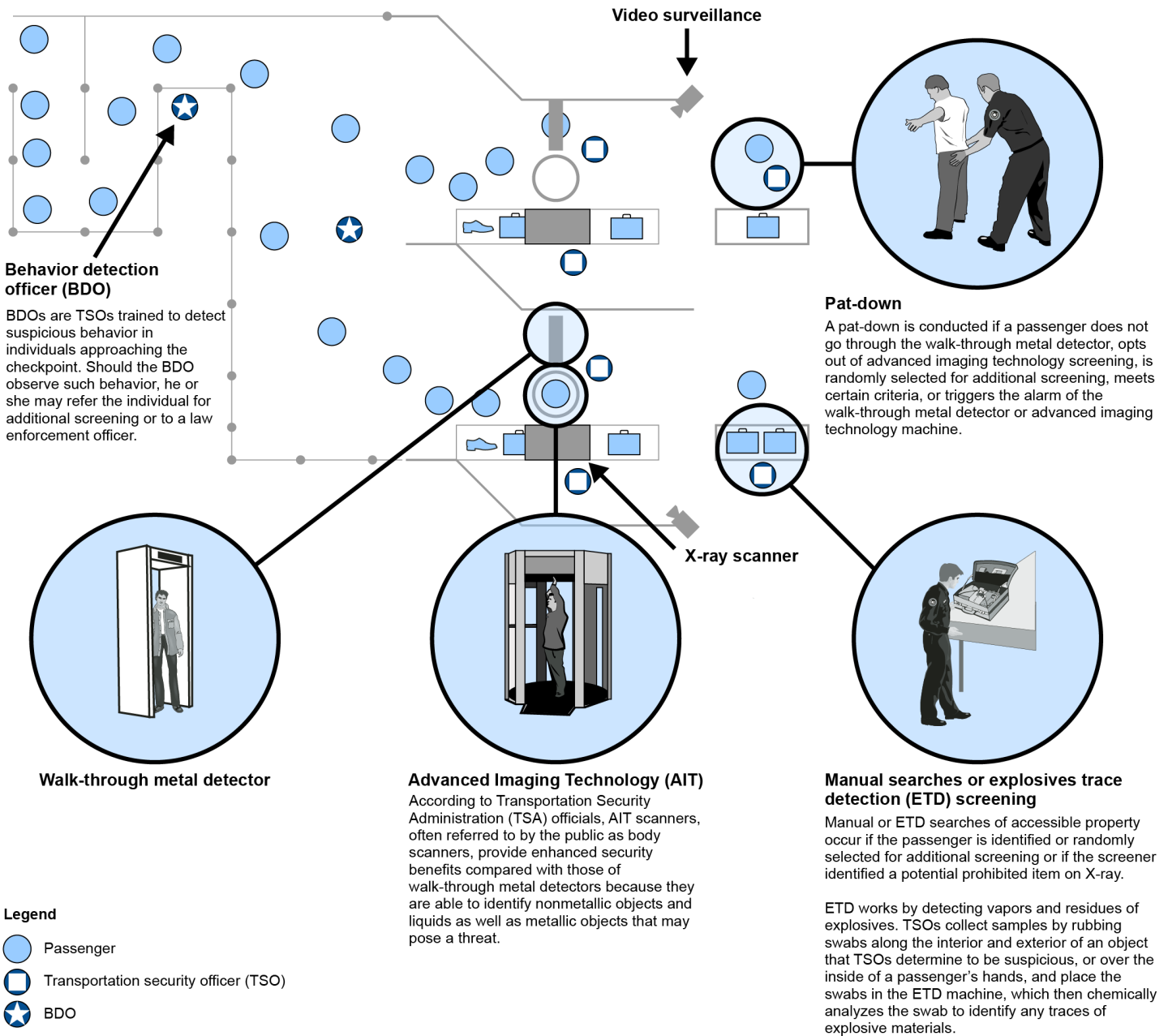
items included on the PIL into the sterile area or on board an aircraft.<sup>18</sup> As shown in figure 1, TSOs use the following methods, among others, to screen passengers:

- X-ray screening of property,
- Advanced imaging technology scanners (often referred to by the public as body scanners) or walk-through metal detector screening of individuals,
- pat-down screening of individuals,
- physical search of property,
- trace detection for explosives, and
- behavioral observation.

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<sup>18</sup>TSOs must deny passage beyond the screening checkpoint to any individual or property that has not been screened or inspected in accordance with passenger screening standard operating procedures. See 49 C.F.R. § 1540.107(a). See also §§ 1544.201(c) and 1546.201(c) (requiring, in general, that air carriers refuse to transport any individual who does not consent to a search or inspection of his or her person and property).

**Figure 1: Passenger Screening Checkpoint for Prohibited Items**



Source: GAO analysis of TSA information; Art Explosion (clip art). | GAO-15-261

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TSA has developed checkpoint screening standard operating procedures that establish the process and standards by which TSOs are to screen passengers and their carry-on items at the screening checkpoint. According to TSA standard operating procedures, passengers may be screened through the use of a walk-through metal detector, advanced imaging technology scanner, or a pat-down. Passengers are also generally required to divest their property, including the removal of shoes and outer garments, and empty their pockets. During this screening process, TSOs look for any prohibited or dangerous items on a passenger or among the passenger's property.

Ordinarily, passenger screening at the checkpoint begins when the individual divests and places his or her accessible property on the X-ray conveyor belt or hands such property to a TSO. A TSO then reviews images of the property running through the X-ray machine and looks for signs of prohibited items. The passengers themselves are typically screened via a walk-through metal detector or an advanced imaging technology scanner, and passengers have the option to request screening by a pat-down if they do not wish to be screened via the advanced imaging technology scanner. TSA uses additional screening techniques on a random basis to provide an additional layer of security. These additional screening techniques, referred to as an Unpredictable Screening Process, are prompted automatically by the walk-through metal detector, which picks out a certain percentage of passengers at random to be selected for additional screening. For example, TSA uses explosives trace detection (ETD) to swab the hands or property of passengers on a random basis to screen for explosives.

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## Modifications to the Prohibited Items List

According to TSA officials, because of statutory and other considerations, TSA has revised the PIL six times since its inception in February 2003 (see table 2). In general, TSA modifies the PIL as necessary when circumstances prompt the agency to revise the items listed as prohibited from being carried into an airport sterile area or on board an aircraft. For example, in 2005, TSA modified the PIL in response to a statutory requirement to prohibit passengers from carrying any type of lighter on their person or in their accessible property on board aircraft.<sup>19</sup> Later that

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<sup>19</sup>See Pub. L. No. 108-458, § 4025, 118 Stat. 3638, 3724 (2004); 70 Fed. Reg. 9877 (Mar. 1, 2005). Pursuant to a subsequent statutory requirement, TSA again modified the PIL to permit the carriage of certain lighters on board aircraft. See Pub. L. No. 109-295, § 530, 120 Stat. 1355, 1383 (2006); 72 Fed. Reg. 40,262 (July 24, 2007).



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year, TSA also modified the PIL to allow passengers with ostomates to carry small ostomy scissors with them onto aircraft because the agency had heard from persons with ostomies that they avoid flying, in part, because they are not allowed to carry the scissors they need onto the aircraft.<sup>20</sup> In 2006, TSA further modified its policy with respect to permitted and prohibited items in response to a specific terrorist threat by initially prohibiting the carriage of liquids, gels, and aerosols on board an aircraft, and subsequently permitting passengers to carry limited amounts of liquids, gels, and aerosols on board an aircraft in a manner prescribed by the agency.

In some cases, TSA implements short-term, immediate changes in response to specific security threats that affect what passengers are allowed to carry on board aircraft. For example, from February 6, 2014, through March 6, 2014, during the 2014 Winter Olympic Games in Sochi, Russia, TSA directed air carriers flying between the United States and the Russian Federation to disallow passengers from carrying any liquids, gels, or aerosols on board aircraft.<sup>21</sup> To implement this requirement, TSA issued a security directive (applicable to U.S.-flagged air carriers) and an emergency amendment (applicable to foreign-flagged carriers), directing, among other things, that air carriers operating between the United States and the Russian Federation ensure that the identified security measures are carried out for the specified period of time. Whereas TSA implements changes to security measures at U.S. airports directly through instruction and training of TSOs, TSA does not have direct operational responsibility for or control over security screening at airports abroad. As a result, when TSA determines that circumstances warrant the implementation of additional security measures, often of an immediate need and limited duration, and for which it must rely upon the air carriers to ensure that

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<sup>20</sup>See 70 Fed. Reg. 51,679 (Aug. 31, 2005). As described in the *Federal Register*, a person with an ostomate has undergone a surgical procedure known as an ostomy, which involves creating an opening in the person's abdomen for the purposes of attaching a collection pouch for human waste. The pouch must be changed regularly with the use of ostomy scissors. As modified, passengers are permitted to carry ostomy scissors with pointed tips and an overall length of 4 inches or less, when accompanied by a functioning ostomate supply kit.

<sup>21</sup>See TSA Security Directive 1544-14-02 (Feb. 6, 2014) and TSA Emergency Amendment 1546-14-01 (Feb. 6, 2014) (imposing additional security requirements on U.S. and foreign air carrier operations, respectively, to and from the Russian Federation). The security directive and emergency amendment did permit the carriage of medication in liquid, gel, or aerosol form.

such measures are carried out, TSA generally accomplishes this by issuing security directives and emergency amendments and, as circumstances permit, in coordination and consultation with host governments, the International Civil Aviation Organization (ICAO), and other affected parties.<sup>22</sup>

**Table 2: Modifications Made to the Prohibited Items List (PIL) of Carry-on Items**

Effective date of modification	PIL modification
February 28, 2003	Clarification on lighters: TSA corrected its original interpretive rule (published February 14, 2003) permitting passengers to carry onto aircraft only “non-refillable” lighters. TSA noted that it had erroneously included the word “non-refillable” to describe liquefied gas lighters and that both refillable and non-refillable lighters are equivalent from a security perspective. TSA maintained the same limit of no more than two such lighters per passenger as indicated in the original interpretive rule.
March 1, 2005	Prohibition of lighters: In accordance with the Intelligence Reform and Terrorism Prevention Act of 2004, TSA reviewed and modified the interpretive rule to prohibit the carriage of all lighters when in an airport sterile area or on board an aircraft. Although the law specifically required the prohibition on butane lighters, TSA explained that most lighters previously permitted were butane lighters and that it is difficult, and often impossible, for screeners to distinguish between lighters that are fueled with butane and lighters that are fueled by some other flammable gas or liquid.
August 29, 2005	Allowance of ostomy scissors: TSA modified the interpretive rule to allow onto an airplane medical ostomy scissors with pointed tips with an overall length, including blades and handle, of 4 inches or less, when accompanied by a functioning ostomate supply kit. Among other reasons, TSA explained that the change was consistent with other exceptions TSA has created to address medical needs in other scenarios, including syringes, needles, and other devices used by individuals in the treatment of diabetes.

<sup>22</sup>TSA regulations contemplate the issuance of security directives and emergency amendments as circumstances warrant. See 49 C.F.R. §§ 1544.305 (authorizing the issuance of security directives to U.S.-flagged air carriers) and 1546.105(d) (authorizing the issuance of emergency amendments to foreign-flagged carriers). When TSA determines that circumstances may warrant changes of a more permanent or long-term nature, it will coordinate with ICAO and other international organizations, host governments, and other affected parties to facilitate such changes. ICAO is a United Nations Specialized Agency established in 1944 upon the signing of the Convention on International Civil Aviation (also known as the Chicago Convention) that works with the convention’s 191 member states and global aviation organizations to develop international standards and recommended practices that states reference when developing their legally enforceable national civil aviation regulations. Nations that are members of ICAO agree to cooperate with other member states to meet standardized international aviation security measures

December 22, 2005	Small scissors and small tools: TSA revised the interpretive rule to allow passengers to carry onto aircraft metal scissors with pointed tips and a cutting edge 4 inches or less as measured from the fulcrum, as well as small tools such as screwdrivers, wrenches, pliers, and other tools 7 inches or less. These items were added to the corresponding permitted items list (plastic scissors and scissors with blunt tips were already permitted). Among other reasons, TSA explained that the change would enable TSA to reallocate screening resources to more effectively search for items that present a greater threat, such as explosives. This is the most recent publication of the interpretive rule in the Federal Register.
November 21, 2006	Liquids, gels, and aerosols: After an initial emergency ban on all liquids, gels, and aerosols, TSA subsequently permitted them in 3.4-ounce travel size containers that must all fit in a 1-quart-size, clear plastic, zip-top bag.
August 4, 2007	Allowance of all lighters: In accordance with the Department of Homeland Security Appropriations Act, 2007, TSA modified its policy and would no longer enforce the statutory ban on carrying butane lighters through the checkpoint and onto an aircraft. TSA explained that, on the basis of intelligence-driven threat assessments, it determined butane lighters and other types of lighters do not pose a significant threat to aviation security, and that TSA resources would be better spent screening for items such as explosive and firearms. The prohibition on micro-torches and gas torches remained in effect.

Source: GAO review of Federal Register notices and Transportation Security Administration (TSA) documentation. | GAO-15-261

Note: TSA did not publish the initial 2006 liquids, gels, and aerosols ban or its decision to permit liquids, gels, and aerosols in limited amounts stated in the Federal Register, but alerted the public to this change through updating its public website, working with air carriers to advertise the change, and posting signs in airports.

## TSA Considers Several Factors when Modifying the PIL, but Did Not Fully Assess Risk or Stakeholder Perspectives when Evaluating Its Small Knives Proposal

### TSA Considers Several Factors when Evaluating Potential PIL Modifications

TSA officials told us that when evaluating whether or not to change the PIL, they generally consider the following four factors: (1) the security risks posed by each item on the current PIL or potential item to be added, (2) opportunities a potential change may have to improving checkpoint screening and passenger experience, (3) harmonization with international aviation security standards and recommended practices published by ICAO, and (4) stakeholder perspectives on the change. For example, as part of a broader set of potential changes related to adopting a risk-based security approach to passenger screening, TSA formed a working group

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in 2011 to conduct a risk-based review of the PIL; assessed the individual risk posed by each PIL item; and then considered how removing a particular item, or set of items would present opportunities, constraints, and challenges for TSA security operations at the checkpoint.<sup>23</sup> TSA officials stated they then considered how any changes would affect TSA personnel costs and passenger experience such as likely screening throughput time if TSA personnel no longer had to screen for particular items. TSA then evaluated how interested parties such as Congress, airlines, and flight attendants would respond to permitting particular items on board an aircraft. TSA also considered ICAO guidance on prohibited items and took into account whether any changes it made to the PIL would further align TSA's guidelines for prohibiting items with ICAO standards and recommended practices.<sup>24</sup>

TSA officials told us that TSA does not have policies that require a specific process to be followed or a specific set of criteria to be used

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<sup>23</sup>The review of the PIL was initiated in response to questions asked of the TSA Administrator about risk-based security at his confirmation hearing. TSA officials told us that the agency's March 5, 2013, decision to revise the PIL to remove small knives and certain sporting equipment from the PIL stemmed from the broader review conducted in 2011 in which a TSA working group composed of multiple TSA offices conducted a risk-based analysis of the PIL. Among the seven recommendations presented by the working group was a recommendation to remove small knives and other low-threat items from the PIL, including certain types of sporting equipment, because doing so would lead to a reduction in the amount of time TSOs spent identifying and processing items that may not pose a significant threat to transportation, would better harmonize the PIL with international aviation security standards, and would increase checkpoint throughput and use screening resources more effectively.

<sup>24</sup>TSA compares items on its prohibited items list with items on comparable guidance issued by ICAO. Specifically, ICAO's Annex 17 to the Convention on International Civil Aviation prescribes standards and recommended practices to which member states agree to conform or to which they will endeavor to conform. ICAO: *Annex 17 to the Convention on International Civil Aviation—International Standards and Recommended Practices* (9th ed., March 2011). With respect to prohibited items, Standard 4.1.1 provides that "[e]ach contracting State shall establish measure to prevent weapons, explosives, or any other dangerous devices, articles, or substances, which may be used to commit an act of unlawful interference, the carriage or bearing of which is not authorized, from being introduced, by any means whatsoever, on board an aircraft engaged in civil aviation." ICAO's current *Aviation Security Manual* contains guidance on how member states may comply with Annex 17 and recognizes that the methods contained therein are based on generally recognized practices and procedures common within the international civil aviation industry but are not the only means of compliance. ICAO: *Aviation Security Manual*, (8th ed. 2011). Appendix 45 of the security manual includes a prohibited items list, which includes a prohibition on knives with blades of more than 6 centimeters (approximately 2.36 inches).

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when evaluating potential modifications to the PIL, since the circumstances for each potential PIL change are unique. Officials stated the steps they take when considering a modification often vary depending on the nature of the proposed revision.<sup>25</sup> In its 2011 review of the PIL, TSA's working group addressed these factors as follows:

**Impacts on security risk:** The working group evaluated the risk to transportation security presented by each prohibited item by assessing the likelihood of an adversary successfully using the item to achieve different terrorist objectives. TSA assigned risk ratings of high, medium, low, or none to each item on the PIL for each terrorist objective. TSA assessed the levels of risk posed by small knives for each terrorist objective.<sup>26</sup>

**Impacts on screening operations:** The working group also considered how the removal of small knives would affect checkpoint screening operations. For example, TSA estimated, using historical data prior to 2009, that approximately half of all nonfirearm, nonincendiary voluntarily abandoned property (VAP) left behind at the checkpoint consisted of small knives with blades shorter than 2.36 inches.<sup>27</sup> TSA concluded that

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<sup>25</sup>In a March 2013 letter to Congress, the TSA Administrator detailed the full set of criteria he considered in making the decision to permit small knives on board aircraft: (1) the latest intelligence and threat information from the U.S. intelligence and law enforcement communities as to how terrorists are trying to attack the United States and how that has changed since September 11, 2001; (2) the potential increased risk to passengers, flight crew, federal air marshals, and the TSA workforce; (3) how a change to the prohibited items list to permit an item would affect security operations for TSA employees and the traveling public, particularly at the checkpoint; (4) whether the change would increase the risk of a successful terrorist attack to bring down an aircraft; (5) how TSA's current policy aligned with international security standards; (6) how the knives change aligned with TSA's goal to provide the most effective security in the most efficient way; and (7) concerns raised by the flying public and Congress to apply more common sense to aviation security.

<sup>26</sup> TSA assessed small knives to be a high risk for certain types of attacks on passengers and crew in the cabin, as well as criminal acts involving individual passengers. The remainder of its assessment was Sensitive Security Information.

<sup>27</sup>VAP includes prohibited items surrendered at airport checkpoints by passengers. TSA discontinued in 2009 the requirement that TSA's airport security managers track the number of voluntarily abandoned items left by passengers at TSA checkpoints for certain prohibited items categories because, according to TSA officials, collecting the data placed an administrative burden on supervisory TSOs at passenger screening checkpoints, and TSA decided the supervisors' attention would be better spent on other security-related tasks.

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TSOs spent a disproportionate amount of their time searching for these items. TSA reasoned that removing small knives from the PIL would have a positive impact on screening operations since TSOs would no longer have to detect and deal with small knives at the checkpoint, reducing direct and indirect personnel costs, increasing passenger throughput, and reducing distractions to TSOs. TSA also concluded that not requiring TSOs to screen for small knives would in turn improve their ability to screen for higher-threat items, such as IEDs, and thus reduce risk overall. For example, the TSA risk assessment cited a research study focused on how success rates for screening items vary based on what screeners look for.<sup>28</sup> TSA cited the study in support of its assertion that TSOs would be more successful identifying IEDs if they did not have to screen for small knives.<sup>29</sup>

**Harmonization with international standards and guidance:** TSA also considered the harmonization of the PIL with ICAO standards and recommended practices. TSA concluded that making certain changes to the PIL, such as removing small knives, could better harmonize its policies with ICAO guidance. Specifically, ICAO guidance provides that member states should consider prohibiting knives with blades of more than 6 centimeters (approximately 2.36 inches) from being carried on board aircraft. TSA concluded that there would be operational and policy benefits from harmonizing the PIL with ICAO guidance because greater harmony among the various countries promotes greater cooperation on all security issues. Further, TSA asserted that inconsistencies between the PIL and the ICAO guidance could create confusion for passengers when items were allowed onto aircraft in one country, but prohibited in another.

**Stakeholder perspectives:** The TSA working group also noted the need to coordinate with stakeholders on some of the options for modifying the PIL, as these options were likely to cause concern among some of these groups, if implemented. For example, for the working group's proposed recommendation to remove small knives from the PIL, TSA officials noted past concerns from stakeholders over the prospect of allowing small

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<sup>28</sup> Joshua Rubinstein, *Remote Screening Human Factors Study Test and Evaluation Report*, a report prepared for the U.S. Department of Homeland Security, Transportation Security Administration, June 2009.

<sup>29</sup> We did not assess the methodology of this study.

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knives or other items on board aircraft and stated that coordination and collaboration with key stakeholders would be a critical success factor for implementation. They also noted that stakeholder support would be greatly enhanced by a unified approach to communicating to stakeholder groups that TSA planned to shift its resource focus from finding small knives to other efforts that would result in better security.

Although TSA recognized that allowing small knives on planes would raise the potential risk of other terrorist aircraft scenarios, TSA concluded the change would not raise the overall risk of catastrophic aircraft destruction. However, rather than make an immediate decision about changing the PIL, TSA elected to suspend working group activities and delay making any decisions while it focused greater attention and TSA resources on other emerging risk-based security initiatives, such as the Known Crewmember and expedited passenger screening programs.<sup>30</sup> TSA resumed working group evaluations of the PIL in July 2012.

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### TSA Did Not Fully Assess Risk Prior to Its Decision to Remove Small Knives from the PIL

As previously discussed, TSA used its risk assessment to conclude that overall risk to aviation security would be lowered by allowing small knives onto aircraft because security screeners would be able to better focus on identifying higher-risk items, such as IEDs. However, TSA did not conduct sufficient analysis to show that removing small knives would ultimately reduce risk and improve checkpoint screening.

TSA's reasoning for its decision to remove small knives from the PIL was to further align the PIL with ICAO guidance on prohibited items, decrease time spent rescreening or searching bags for these items, and better enable its TSOs to focus more attention on higher-threat items, such as IEDs, thereby potentially increasing security. DHS guidance for managing and assessing risk states that risk assessments should evaluate all the risk scenarios considered by the assessment.<sup>31</sup> In its risk assessment, TSA assessed the risk posed by small knives for each terrorist objective;

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<sup>30</sup>Expedited screening programs provide streamlined security screening to certain travelers who TSA has determined to pose a low risk to aviation security. For more information, see GAO, *Aviation Security: Rapid Growth in Expedited Passenger Screening Highlights Need to Plan Effective Security Assessments*, [GAO-15-150](#) (Washington D.C.: December 2014).

<sup>31</sup>*National Infrastructure Protection Plan: Partnering to Enhance Protection and Resiliency* (Washington, D.C.: January 2009).

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however, it did not complete data collection or an evaluation to determine whether TSOs would actually be better able to identify high-risk items, such as IEDs, if they were not looking for small knives. Furthermore, the research cited by TSA did not evaluate a situation where screeners had to differentiate between knives with blades greater or less than 2.36 inches in length, as proposed by TSA. Without conducting a more valid evaluation of the actual proposed change, TSA could not sufficiently evaluate whether the added risk of allowing small knives onto aircraft would be offset by a reduction in risk achieved through improved screening for IEDs. Such an analysis would have allowed TSA to actually measure whether airport screeners would be better able to identify explosives if they no longer had to screen for small knives, and better determine whether the added risk of allowing small knives onto aircraft would be offset by potential efficiencies in screening for explosives.

Moreover, 25 of 35 TSOs (including supervisory TSOs) and 8 of the 10 Transportation Security Managers we interviewed during visits to six airports did not agree that allowing small knives on planes would have helped them better screen for IEDs, as TSA concluded in its risk assessment. Four TSOs and 1 supervisory TSO we interviewed noted that the exact size of a knife is difficult to ascertain on an X-ray. Therefore, these 4 TSOs and the supervisor believed they would have to open bags in many instances and physically measure the knife to make sure it conformed to TSA's definition of a permissible knife, which, according to TSA's definition, was a nonfixed blade less than 2.36 inches and not exceeding a 0.5 inch in width with no locking mechanism, and no molded grip or nonslip handle. TSA officials told us that the training provided to TSOs specified that each TSO was expected to use his or her judgment in determining, based on the X-ray image, whether a knife was permissible or not.

We previously recommended in 2007 that TSA strengthen its evaluation of proposed modifications to the PIL and other checkpoint screening procedures to better justify its decisions. Specifically, in April 2007, we found that TSA did not conduct the necessary analysis to support its 2005 decision to remove small scissors (4 inches or less) and certain tools (7



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inches or less) from the PIL.<sup>32</sup> As with TSA's more recent rationale for removing small knives from the PIL, TSA stated that the reason for its decision to remove small scissors and tools was to shift TSO focus from items considered by TSA to pose a low threat to items considered to pose a high threat, such as IEDs, as well as to better allocate TSA resources to implement other security measures that target IEDs. However, we found that TSA did not conduct the necessary analysis to determine the extent to which removing small scissors and tools from the PIL could improve TSO performance in detecting higher-threat items, nor did TSA analyze other relevant factors such as the amount of time taken to search for small scissors and tools and the number of TSOs conducting these searches. As a result, we recommended that TSA, when operationally testing proposed modifications to its checkpoint screening procedures, such as the PIL, develop sound evaluation methods to assist it in determining whether proposed procedures would achieve their intended result, such as enhancing the agency's ability to better detect prohibited items, and free up existing TSO resources.<sup>33</sup>

While TSA concurred with our recommendation, it has not fully implemented it. Specifically, since we issued our 2007 report, TSA has conducted at least two operational tests to evaluate the effects of proposed standard operating procedure changes to X-ray screening and ETDs.<sup>34</sup> However, TSA has not consistently demonstrated improvements in its data collection and evaluation methods associated with making PIL modifications. The small knives decision demonstrated that TSA has continued to make such changes without conducting more robust data collection and evaluation. We continue to believe that TSA should apply sound evaluation methods to assist in determining whether to make

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<sup>32</sup>Specifically, TSA modified the list of items prohibited and permitted on aircraft by allowing metal scissors with pointed tips and a cutting edge of 4 inches or less, as measured from the fulcrum, and small tools of 7 inches or less, including screwdrivers, wrenches, and pliers, to pass through the passenger screening checkpoint. See 70 Fed. Reg. 72,930 (Dec. 8, 2005).

<sup>33</sup>[GAO-07-634](#).

<sup>34</sup>TSA conducted one evaluation on proposed X-ray screening procedures and one test on a proposed ETD procedure. Regarding the X-ray procedure change, TSA collected and analyzed the necessary data to determine whether the X-ray screening procedures would improve passenger throughput. However, in its evaluation of ETD devices, TSA was not able to provide documentation that explained the intended purpose of the proposed ETD procedure, the type of data TSA planned to collect, or how the data would be used.

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changes to standard operating procedures, as we recommended in April 2007. Without sound evaluation methods, TSA will be limited in its ability to determine whether proposed modifications to standard operating procedures—such as the PIL—will result in the intended risk reduction, for example, by enhancing the agency’s ability to better detect IEDs and other high-risk items.

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### TSA Did Not Adequately Obtain Stakeholder Perspectives when Evaluating Its Small Knives Proposal

TSA consulted both internal and external stakeholders during development of its decision to remove small knives from the PIL, but it did not adequately consult with several external aviation stakeholder groups. Some of these groups later raised strong objections after TSA publicly announced the change. GAO’s *Standards for Internal Control in the Federal Government* states that an organization’s management should ensure there are adequate means of communicating with, and obtaining information from, external stakeholders that may have a significant impact on the agency’s operations and its achievement of organizational goals. These internal control standards further state that management is responsible for developing detailed policies, procedures, and practices to fit its agency’s operations and to ensure that they are built into, and an integral part of, operations.<sup>35</sup> Moreover, TSA’s risk assessment and other planning documents leading up to its proposal to remove small knives from the PIL called for full coordination and collaboration with key external stakeholders who might have reservations about the change before moving forward with any revisions to the PIL.

In coordinating with stakeholders, TSA primarily consulted with internal groups who, according to TSA, were generally supportive overall of the proposed revision. Specifically, TSA’s efforts to coordinate with internal groups included the following:

- The TSA “Idea Factory”: Provides for online comments from TSA personnel with “likes” and “dislikes” similar to those on Facebook. According to TSA, results received from April 2011 through December 2012 indicated that some TSA personnel, including screeners, thought that removing small knives would be a good idea and would improve their ability to screen for IEDs.

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<sup>35</sup>[GAO/AIMD-00-21.3.1](#).

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- **TSA National Advisory Council:** An internal employee advisory committee representing TSA employees at various levels, including management, supervisors, and TSOs. An ad hoc subcommittee of this council reviewed the PIL in July 2012 and recommended removing small knives.
  - **Administrator Pistole's informal discussions with TSOs:** According to TSA, Administrator Pistole visited several airports, starting with a town hall meeting at Charlotte Douglas International Airport in December 2012, to gather input on the small knives proposal. TSA officials stated that, during these meetings, TSOs were supportive of the knives proposal and thought it would improve their ability to screen for explosive devices.
  - **Federal Air Marshal Service (FAMS):** In February 2013, FAMS provided TSA management with comments that led to the small knives decision being more restrictive than TSA executives had originally considered. Specifically, the decision no longer allowed fixed or locking blades, or tactical or combat knives, regardless of length. FAMS officials stated they were generally opposed to allowing small knives on aircraft, but their concerns were mitigated by TSA management's revision of the proposal.

TSA also reached out to some external stakeholder groups who, according to TSA, were also supportive of the decision to eliminate small knives, including the Airline Pilots Association, Families of September 11, and DHS's Homeland Security Advisory Council (HSAC).<sup>36</sup> In addition, the TSA Administrator discussed possible changes to the Prohibited Items List in various appearances before Congress from 2010 to 2012 where he expressed the belief that screening personnel should concentrate on items that can cause catastrophic destruction of an aircraft. However, TSA did not discuss the proposal and solicit feedback from other relevant external stakeholders prior to its announcement. For example, TSA did not coordinate with or obtain input from the Aviation Security Advisory Committee (ASAC), which is its primary external advisory group for aviation security matters and whose membership

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<sup>36</sup>The Homeland Security Advisory Committee is a group formed to advise the DHS Secretary on all matters related to homeland security, including aviation security.

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includes various airline industry associations.<sup>37</sup> Also, some relevant stakeholders—from whom TSA did not adequately solicit feedback—subsequently expressed strong opposition to the proposal, which contributed to TSA reversing its decision to implement the proposal. For example, TSA did not adequately consult with flight attendant groups during development of the small knives proposal, including the Association of Flight Attendants—an ASAC member—and the Coalition of Flight Attendant Unions. Specifically, in a November 30, 2012, phone call primarily regarding another matter, TSA informed the AFA president that it was also planning to modify the PIL to remove small knives. AFA officials disagreed with this decision. However, this conversation occurred after TSA had developed the proposal for the decision over the preceding months. Shortly after this meeting, the TSA Administrator approved the decision to remove small knives from the PIL, which was followed by the March 5, 2013, public announcement of the decision.

In response to feedback received after its March 5, 2013, public announcement of the small knives decision, TSA conducted a classified briefing with the ASAC. TSA officials met with the ASAC on April 22, 2013, more than a month after TSA's March 5, 2013, public announcement of its proposed change and just prior to its planned implementation date of April 25, 2013, and briefed ASAC members on the announced change. Immediately following this meeting, and on the basis of input received by ASAC members and other stakeholders, the TSA Administrator announced a delay in implementation of the change to allow the agency additional time to more fully coordinate with various external stakeholders groups and incorporate additional input on the change. Following the ASAC briefing and announcement of the delay, TSA held similar briefings with other stakeholder groups including the Victims of Pan Am Flight 103 and the National Air Disaster Alliance/Foundation. On June 5, 2013, the TSA Administrator announced that on the basis of extensive engagement with the ASAC and other

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<sup>37</sup>The Aviation Security Advisory Committee charter establishes the committee under the authority of 6 U.S.C. § 451. This committee is established in accordance with and must operate under the provisions of the Federal Advisory Committee Act (FACA), Title 5 United States Code, Appendix. The Federal Aviation Administration originally chartered the ASAC in 1989 to advise it on matters of aviation security by providing the viewpoints of aviation security experts across the private sector and government. TSA assumed management responsibility for the ASAC following enactment of the Aviation and Transportation Security Act, which established TSA as the federal entity responsible for civil aviation security, in November 2001. See Pub. L. No. 107-71, 115 Stat. 597 (2001).

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stakeholder groups, including law enforcement officials and passenger advocates, TSA would continue to enforce the current PIL and not go forward with the decision to remove small knives from the list.

As described earlier, TSA management officials stated that they do not have a formal policy or a specific process for evaluating PIL modifications; this also means that they have no specific requirements for coordinating with stakeholders during development of potential revisions to the PIL. TSA officials stated that if some of the steps for stakeholder coordination defined in other TSA processes for emergency amendments and security directives had been in place for PIL changes—such as obtaining key stakeholder input when developing a security policy change—they may have helped to ensure better stakeholder coordination during consideration of the knives change. For example, TSA officials stated that, in hindsight, meeting with the ASAC and having more in-depth discussions with flight attendants during internal deliberations over modifying the PIL would have improved their efforts to fully coordinate and ensure they appropriately obtained and considered all key stakeholder perspectives. TSA officials also stated that they would have benefited from broader engagement earlier in the process with external groups, such as the ASAC and flight attendants. In the case of the small knives decision, the officials added that this broader and more timely engagement could have provided additional insight into the breadth and depth of potential concerns associated with removing certain items from the PIL.

Clear processes outlining the appropriate types of stakeholders to consult—including when in the process stakeholders should be consulted—could help ensure that TSA's process for determining PIL changes is effective and efficient. For example, having clearly defined processes for stakeholder coordination could ensure that TSA fully obtains and considers stakeholder views—consistent with internal control standards and TSA's planning documents—that could help mitigate potential inefficiencies resulting from reversing policy decisions. Going forward, a formal process to ensure the solicitation of input from relevant external stakeholders on proposed changes to the PIL, including when in the PIL modification process TSA officials are to coordinate with such stakeholders, would help provide reasonable assurance that TSA has a more complete understanding of stakeholder perspectives earlier in the decision-making process. This could help avoid rescission of those changes after investing resources in training TSOs and informing the general public of the change, as was the case with the proposed change to remove small knives from the PIL.

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## TSA Utilizes a Variety of Approaches for Preparing TSOs to Implement Revisions to the PIL at Passenger Screening Checkpoints

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### TSA Customizes TSO Training to Fit the Unique Nature and Complexity of Each PIL Revision

According to TSA personnel from the Office of Training Workforce and Engagement (OTWE), TSA evaluates on a case-by-case basis what training tools it will use to ensure TSOs are adequately trained to implement a change to the PIL.<sup>38</sup> However, TSA typically provides TSOs with one or more of the following methods to prepare and train them to implement a PIL change:

- Online training—This type of training is web-based and may be completed by the TSOs either individually or as a group. This training may include test questions to assess the TSOs' mastery of the material.
- Instructor-led classroom training—Training personnel conduct formal classroom training with multiple TSOs.
- Informational briefings, bulletins, and memos—These include oral briefings by TSA trainers or supervisors in addition to notifications TSA headquarters sends to field personnel. These methods may be used to notify the field personnel of standard operating procedure changes or other matters. Trainers conduct briefings at the beginning of a TSO shift or may do so at another designated time, such as following a formal training session. The notifications sent by TSA headquarters may include “read and sign” memos, in the case of

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<sup>38</sup>Although screeners employed by TSA (TSOs) and employed by private contractors as part of TSA's Screening Partnership Program must adhere to the same standard operating procedures and training requirements, we did not evaluate the delivery or effectiveness of training provided to screeners employed by private contractors for purposes of this report.

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standard operating procedure changes, or may be presented online for other important matters.

TSA training personnel stated that they maintain a flexible approach by using different methods to prepare TSOs to implement PIL changes since the changes have differed in their complexity, and therefore some PIL changes require less training and preparation than others. TSA training personnel stated they work closely with the Office of Security Operations (OSO) to determine the proper approach to prepare TSOs to implement each change. As an example of how the training approach can vary based on the nature of the PIL change, the TSA training officials cited the 2005 change to prohibit all lighters from sterile areas or aircraft as one that required less TSO preparation, in terms of training, compared with the 2013 proposal to remove small knives. This was because the small knives proposal encompassed more variables with regard to which knives could be allowed (e.g., length of knife, type of knife, etc.) and therefore required more evaluation and judgment on the part of the TSOs to implement and operationalize the change correctly. By contrast, for the lighters change, TSOs simply had to know they would not allow any lighters past the checkpoint.

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### TSA Used Web-Based Training and Briefings to Prepare TSOs to Implement the PIL Change to Remove Small Knives

In developing training for the rollout of the small knives decision, TSA required all TSOs to complete web-based training, individually or as a group, covering the specifics of the change.<sup>39</sup> TSA's web-based training was followed by a "training brief" that a TSA trainer would provide either (1) immediately following a web-based training group session or (2) as part of a "shift brief" at the beginning of TSOs' work period (after completion of the web-based session) in order to allow TSOs to ask questions and gain clarity on the specifics of the PIL change. TSA required TSOs to complete all training within a 20-day window prior to the planned implementation of the approved knives proposal.

TSA's web-based training sessions on the knives decision included images that provided examples of knives and sporting equipment that would not be allowed under the new guidelines. As shown in figure 2,

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<sup>39</sup>As stated previously, we did not review training provided to screeners at airports participating in the Screening Partnership Program. According to TSA officials, screeners at airports participating in the Screening Partnership Program receive training comparable to and in accordance with TSA training requirements.

these examples included illustrations of knives that would not be allowed into secure areas or on board aircraft because of their size (length greater than 2.36 inches, width greater than 0.5 inch) and design features (e.g., locking blades, hand-molded grip, etc.) of knives that should be prevented from being carried into sterile areas and on board aircraft. In addition, the training included X-ray images to train TSOs on what an allowed and a disallowed knife would look like on the screen. TSA's web-based training also covered the new procedures associated with knives that TSOs were to follow at the checkpoint, such as requiring travelers to remove any knives they may be carrying from their carry-on baggage or their person so that these items may be screened separately. Last, the web training tested TSOs in their knowledge of the new guidelines for the upcoming PIL change.

**Figure 2: Web-Based Training Image of Knives Prohibited in the Transportation Security Administration's Planned April 25, 2013, Change to the Prohibited Items List (Not Implemented)**



**A knife is prohibited if:**

- The blade is longer than 6 centimeters or 2.36 inches in length
- The blade width is more than half an inch at its widest point
- The knife has a fixed blade or locks firmly when in use—no matter what the length
- The knife has a hand-molded grip or a non-slip handle

Source: TSA. | GAO-15-261



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Similar to the web-based training, TSA's training brief included example images of allowed/disallowed knives and sporting equipment. The training brief also included coverage of the revised standard operating procedures associated with this PIL change.

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## Conclusions

Proposals to add or remove items from TSA's PIL can have critical impacts, not just for the security of millions of air travelers each year, but on the efficiency and effectiveness of passenger screening at airport security checkpoints and perceptions of risk by external stakeholders. Making determinations about potential PIL changes can take time and extensive consideration on the part of TSA as the agency balances its aviation security goals with efficient passenger throughput. While we commend TSA's efforts to consider the risk posed by each item on the PIL, and potential screening efficiencies that may be created by allowing small knives and other items to be carried onto aircraft, conducting the analyses to demonstrate the potential efficiencies and to show that such efficiencies would offset the added risk presented by allowing small knives to be carried on board aircraft would help ensure that critical changes to the PIL will have the intended impact on both security and efficiency. These types of analyses would be consistent with the previous recommendation we made that TSA should strengthen its evaluation of proposed modifications to checkpoint screening procedures. Further, TSA stated in its risk assessment and other planning documents that it would be critical to involve stakeholders in its deliberations regarding the change to the PIL. However, by not taking the necessary steps to sufficiently consult with relevant external stakeholders who may be directly affected by the proposal to allow small knives onto aircraft, TSA ultimately reversed its decision to implement the small knives change to the PIL after having already publicly announced its decision and invested resources in training and implementation. Developing a formal process for stakeholder coordination when making changes to the PIL would help to ensure that TSA's decisions to change the PIL are fully informed by stakeholder perspectives, and help to ensure the efficient use of agency resources when revising and implementing PIL policies.

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## Recommendation for Executive Action

To help ensure its proposed PIL modifications fully account for the views of key external stakeholders in the aviation industry, we recommend that the Transportation Security Administration's Administrator establish a formal process to ensure the solicitation of input from relevant external stakeholders on proposed changes to the PIL, including when in the PIL

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modification process TSA officials are to coordinate with such stakeholders, before deciding to make a PIL change.

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## Agency Comments and Our Response

We provided a draft of this report to DHS for comment. DHS provided written comments, which are summarized below and reproduced in full in appendix I. TSA concurred with our recommendation and described actions planned to address it. In addition, DHS provided written technical comments, which we incorporated into the report as appropriate. In concurring with our recommendation, DHS agreed with the need for a formal process to ensure the solicitation of input from relevant external stakeholders on proposed changes to the PIL. DHS stated that TSA's senior leadership team works year-round to build and maintain strategic partnerships with various stakeholders to develop policy, share best practices, and participate in setting industry security standards, among other things, and that a formal process for making changes to the PIL will build upon these activities to ensure relevant stakeholders are offered the opportunity to engage with TSA and inform its decisions. DHS stated that a formal process should also make stakeholder engagement more disciplined and concise and result in decisions that are viable and acceptable. TSA has identified the Office of Security Policy and Industry Engagement and the Office of Security Operations as the appropriate offices to create such a process and plans for them to work closely with the Office of Intelligence and Analysis, the Office of the Chief Risk Officer, and the Office of Chief Counsel. TSA plans to create such a formal process by November 30, 2015. This process, when fully implemented, should address the intent of our recommendation.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to the appropriate committees and the Secretary of Homeland Security. In addition, the report will be available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-7141 or [groverj@gao.gov](mailto:groverj@gao.gov). Contact points for our Office

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of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix III.

A handwritten signature in black ink that reads "Jennifer Grover". The signature is written in a cursive, flowing style.

Jennifer Grover  
Director  
Homeland Security and Justice Issues

# Appendix I: Comments from the Department of Homeland Security

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



**Homeland  
Security**

January 15, 2015

Jennifer A. Grover  
Director, Homeland Security & Justice Issues  
U.S. Government Accountability Office (GAO)  
441 G Street, NW  
Washington, DC 20548

Re: GAO-15-261, "AVIATION SECURITY: TSA Should Take Additional Actions to Obtain Stakeholder Input when Modifying the Prohibited Items List"

Dear Ms. Grover:

Thank you for the opportunity to review and comment on this draft report. The U.S. Department of Homeland Security (DHS) appreciates the U.S. Government Accountability Office's (GAO's) work in planning and conducting its review and issuing this report.

DHS welcomes GAO's commendation of the Transportation Security Administration's (TSA's) efforts to consider the risk posed by each item on the Prohibited Items List (PIL), and potential screening efficiencies that may be created by allowing small knives and other items to be carried onto aircraft. The Department agrees that establishing a formal process could increase acceptance and viability of future PIL decisions and expedited passenger screening initiatives. TSA's Office of Security Policy and Industry Engagement (OSPIE) is working to create such a process.

TSA's senior leadership team works year-round to build and maintain strategic partnerships with senior level transportation operators, trade associations, other Federal agencies, and international partners. Together they develop policy, establish a shared understanding of risk and vulnerability gaps, share best practices, communicate risk reduction measures, provide authoritative and timely guidance to industry and government sector organizations, participate in setting industry security standards, and access industry feedback to policies and directives. A formal process for changes to the PIL will build upon these activities to ensure that relevant stakeholders are offered the opportunity to engage with us and inform our decisions. A formal process should also make stakeholder engagement more disciplined and concise and result in decisions that are viable and acceptable.

The draft report contained one recommendation with which the Department concurs. Specifically, GAO recommended that TSA's Administrator:

**Recommendation:** Establish a formal process to ensure the solicitation of input from relevant external stakeholders on proposed changes to the PIL, including when in the PIL modification process TSA officials are to coordinate with such stakeholders, before deciding to make a PIL change.

**Response:** Concur. TSA agrees with the recommendation to establish a formal process ensuring solicitation of input from stakeholders on proposed changes to the PIL. OSPIE and TSA's Office of Security Operations will work closely with TSA's Office of Intelligence and Analysis, Office of the Chief Risk Officer, and Office of Chief Counsel to create this process. Estimated Completion Date: November 30, 2015.

Again, thank you for the opportunity to review and comment on this draft report. Technical comments were previously provided under separate cover. Please feel free to contact me if you have any questions. We look forward to working with you in the future.

Sincerely,



Jim H. Crumpacker, CIA, CFE  
Director  
Departmental GAO-OIG Liaison Office

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# Appendix II: GAO Contact and Staff Acknowledgments

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## GAO Contact

Jennifer A. Grover, 202-512-7141, [GroverJ@gao.gov](mailto:GroverJ@gao.gov)

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## Staff Acknowledgments

In addition to the contact named above, Chris Ferencik (Assistant Director), Dan Rodriguez (Analyst-in-Charge), Mike Harmond, Brendan Kretzschmar, Thomas Lombardi, Stanley Kostyla, Susan Hsu, Kathryn Godfrey, Linda Miller, and Eric Hauswirth made key contributions to this report.

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