

Section 7

US AVIATION SECURITY

September 2004



CIVIL AVIATION SECURITY FINANCING STUDY		7
United States aviation security		

7	United States aviation security.....	217
7.1	Summary	217
7.2	Introduction.....	218
7.3	Aviation security providers in the US.....	218
7.4	Key legislation prior to 11 September 2001	219
7.5	Key legislation post 11 September 2001	219
7.5.1	Key characteristics of the ATSA	220
7.5.2	Transportation Security Administration (TSA)	221
	7.5.2.1 Background.	221
	7.5.2.2 TSA's progress.	221
7.6	US aviation security funding mechanisms	223
7.6.1	Government funding of US aviation security.....	223
	7.6.1.1 TSA funding.....	223
	7.6.1.2 FY2002	224
	7.6.1.3 FY2003	224
	7.6.1.4 FY2004	224
	7.6.1.5 Aviation Security Technical Corrections and Improvement Act	225
	7.6.1.6 Flight 100 – Century of Aviation Reauthorisation Act.....	225
	7.6.1.7 Other financial assistance provided to airports	226
	7.6.1.8 Financial assistance to carriers	227
7.6.2	Charges levied by the US Government.....	228
7.6.3	September 11 Security Fee (Passenger)	229
7.6.4	Aviation Security Infrastructure Fee (Air Carrier Fee)	229
7.7	Obligations on foreign carriers	230
7.8	Potential Vulnerabilities Remaining within the US Aviation Security System	230
7.8.1	Air cargo security.....	230
7.8.2	General aviation security	231
7.8.3	Airport perimeter security	232
7.9	US aviation security - summary	232

List of Figures

Figure 7-1: TSA budget request and actual spend FY 2002 – 2004.....	223
Figure 7-2: TSA FY2004 budget breakdown.....	225
Figure 7-3: Projected Airport Funding (Letters of Intent)	226
Figure 7-4: Carrier compensation payments (top 20 US carriers)	227
Figure 7-5: Aviation security charges.....	229
Figure 7-6: Total US government funding (2002 - 2004)	233

7 United States aviation security

7.1 Summary

US aviation security – the role of the government

- The events of 11 September 2001 focused attention on how aviation security was being provided and regulated in the United States (US). This attention revealed numerous shortcomings that prompted increased scrutiny of not only the *level* of aviation security being provided but also *how* it was being provided in the US.
- The US Government reacted by ensuring that more resources were devoted to providing aviation security as well as to research and development activities that should lead to improvements in aviation security in the future.
- Since 11 September 2001, aviation security in the US has undergone dramatic change. The most visible change is that the federal government has assumed direct responsibility from the carriers and airports for the actual provision and funding of aviation security. With the enactment of Air Transportation Security Act (ATSA) in November 2001, a single body, the Transportation Security Administration (TSA) assumed overall responsibility for aviation security within the US.
- The US government has recognised that it has an important role to play in aviation security. The federal role has moved from the setting and monitoring of security standards to one of financing and implementing the standards. This substantial enlargement of governmental involvement is in contrast to the public-private partnerships that dominate the implementation of aviation security standards in Europe. The Private Security Screening Pilot Program running at 5 US airports (2002 to 2005) will have an input in determining the future organisational structure of aviation security in the US.

Funding US aviation security

- In an attempt to overcome the serious vulnerabilities within aviation security, as exposed by the events of 11 September 2001, the financial assistance provided by the US government has increased considerably. The US government is estimated to have provided assistance of almost \$32bn to the US aviation industry from FY 2002 to FY 2004.
- The passenger security fees created by ATSA, which were intended to pay for the costs of aviation security, are not expected to cover the costs of providing the increased security measures. At the moment the US Government is financing the shortfall of around \$2.5bn in FY 2004.

US aviation security – still some way to go

- Despite the significant resources and efforts expended, vulnerabilities within the system still remain, the most significant of which is in the area of air cargo where only now the industry's attention and resources are being focused. Publication of the TSA's Air Cargo Strategic plan together with the \$85m funding to implement it will go some way to reduce the vulnerabilities in this area.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

7.2 Introduction

This section of the report provides an outline of the major bodies that provide aviation security within the US. The main aviation security related legislation enacted both before and after 11 September 2001 is also reviewed. This section also examines the increased financing of security measures and the particular legal and financing mechanism adopted by the United States (US). Finally, the funding of specific aviation security programmes providing substantial financial assistance to US industry stakeholders, including air carriers and airports is outlined.

7.3 Aviation security providers in the US

Historically, 3 main bodies have provided aviation security in the US:

- Carriers.
- Airports.
- The Federal Aviation Administration (FAA).

Before 11 September 2001, providing aviation security was the responsibility of the air carriers and airports. Government, via the FAA, primarily performed a regulatory and supervisory role.

Depending on the organisational structure of the particular airport, the security screening of passengers and baggage (carry-on and hold) was either the responsibility of the airport or carrier. These activities were frequently contracted out to private companies who provided screening personnel at security checkpoints.

Airports were responsible for law enforcement and general security in the airport vicinity, including exterior areas, parking areas, the airport perimeter, and interior areas up to the security checkpoints. The airports also hired law enforcement officers to man the security checkpoints.

The FAA was responsible for providing threat information; establishing security policies, regulations and protocols; conducting security audits of carriers and airports; supporting research and development of security technology; and overseeing the installation of security equipment and devices in airports.¹

Prior to 11 September 2001, the general public were able to access the air side departure areas in US airports.

¹ Source: Coughlin, Cohen, and Kahn, Aviation Security and Terrorism: A Review of the Economic Issues, 2002.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

7.4 Key legislation prior to 11 September 2001

In the period up to September 2001, aviation security policy in the US was the responsibility of the FAA, an agency within the Department of Transport (DoT).

Studies and legislation throughout the 1990s identified and attempted to improve² long-standing vulnerabilities within aviation security in the US. Legislation introduced was reactive in nature and linked to specific events. Key events included:

- The bombing of Pan Am Flight 103 over Lockerbie in Scotland, which led to the passing of the **Aviation Security Improvement Act of 1990**. This legislation was aimed at raising employment, education and training standards for screening and other airport security personnel.
- In 1996, the crash of TWA Flight 800 off New York's Long Island led to the creation of the **White House Commission on Aviation Safety and Security**.

This Commission recommended the use of new screening technologies and equipment as well as the development of uniform performance standards for training and testing screeners.

- The US Congress also passed legislation: the **FAA Reauthorisation Act of 1996** and the **Omnibus Consolidated Appropriations Act of 1997**.

These acts provided funding to implement many of the White House Commission's recommendations. For example, over the 4 years prior to 2000, Congress provided the FAA with \$1 billion for aviation security. Roughly one-third of this funding was for the purchase and deployment of security equipment at airports. Finally, the **Airport Security Improvement Act of 2000** required additional actions to improve aviation security.³

7.5 Key legislation post 11 September 2001

In response to the terrorist attacks of 11 September 2001, the US Government radically changed how aviation security is performed and managed within the US.

These changes are contained in the Aviation and Transportation Security Act (ATSA) signed into US law on 19 November 2001.

The most significant change imposed by ATSA was that for the first time, aviation security in the US would become a direct Federal responsibility and managed by a single agency – the Transportation Security Administration (TSA) - initially as part the Department of Transportation.

This section examines two important aspects of US aviation security:

- The **Aviation and Transportation Security Act (ATSA)** – particularly the key characteristics of the new legislation.
- The **Transportation Security Administration (TSA)** – looking at the structure, initiatives and developments of this recently formed agency. The funding of TSA activities since its formation is also outlined.

² Source: General Accounting Office, 1 April 2003, GAO-03-616T.

³ Coughlin, Cohen, and Kahn, Aviation Security and Terrorism: A Review of the Economic Issues, 2002.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

7.5.1 Key characteristics of the ATSA

Enactment of the Aviation and Transportation Security Act (ATSA) on 19 November 2001 meant that, for first time in US history, aviation security was the responsibility of one branch of government.

The Act has a number of key characteristics (Appendix C provides more detail); these include the requirement for:

- The appointment of an Under Secretary for Security to head the TSA.
- The screening of all passengers and property carried on board a passenger aircraft by 31 Dec 2002.
- Screening activity at airports to become a Federal responsibility and undertaking.
- The establishment of Federal Security Managers at each US airport, responsible for overseeing screening and other duties.
- The extension of the Federal Air Marshal program.

The final legislation required that all airports switch to federal security screeners within one year with the option to hire private screening companies after three years. This workforce, introduced to airports as they became qualified, was to be fully deployed by 19 November 2002.

The legislation stipulates that the screeners must be US citizens and must be subjected to background checks.

A pilot programme was established that would allow five airports (one in each airport security risk category) to hire private screeners one year after the legislation's enactment. The private screening companies must be owned and controlled by a US citizen.

The TSA was also charged with ensuring sufficient explosive detection systems were made available to screen all checked baggage at US airports by 31 December 2002.

The Act also contains a number of other characteristics:

- Authorises the DoT to reimburse airports for their additional costs of complying with increased security measures post September 11 2001.
- Expands the scope of the DoT's research and development activities related to aviation security.
- Requires strengthening of cockpit doors and raising the quality of passenger and baggage screening.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

7.5.2 Transportation Security Administration (TSA)

7.5.2.1 Background

Established by the enactment of the ATSA, the **Transportation Security Administration (TSA)** became an agency within the Department of Transportation.⁴ On inception, the TSA assumed overall responsibility for transportation security within the US. The overall objective of the TSA is to protect all of the US' transportation systems (including aviation) "to ensure freedom of movement for people and commerce".⁵

The act also shifted security screening responsibilities from the carriers to the TSA and established a series of requirements to strengthen aviation security, many of them with mandated implementation deadlines.⁶ Responsibility for the screening activity at airports was considered of paramount importance and emphasised in the DoT's 'Budget for fiscal year 2003' publication, where they stated "the TSA was created to be responsible for airport passenger screening at every US airport with commercial air services".⁷

The key deadlines stated in ATSA included:

- Deployment of federal screening personnel at 429 commercial airports across the US by 19 November 2002
- The use of explosive detection technology at these airports to screen every piece of aircraft hold baggage for explosives by not later than 31 December 2002. However, the Homeland Security Act subsequently allowed TSA to grant waivers of up to 1 year to airports that would not be able to meet the December 2002 deadline.

Some aviation security responsibility remained with the FAA, particularly related to the security of air traffic, and administration of the Airport Improvement Program (AIP). The AIP is used to fund capital improvements at airports including some security enhancements (e.g. terminal modifications to accommodate explosives detection equipment). Details of AIP funding are outlined later in this section.⁶

7.5.2.2 TSA's progress

The establishment of the TSA initiated major change within the aviation security system in the US. Since 11 September 2001, the TSA has made considerable progress towards meeting the congressional mandates designed to increase aviation security.

More details outlining the TSA's progress can be found at Appendix D. The major achievements are as follows:

- **Appointment of Under Secretary of Transportation for Security:** On 22 November 2002, US Congress confirmed the appointment of the Under Secretary of Transportation for Security, within the Department of Transportation. On March 1, 2003, the Under Secretary became the

⁴ On 1 March 2003, the TSA was transferred from the DoT into the Border and Transportation Security directorate of newly established Department of Homeland Security (DHS). The DHS has overall responsibility for all security related matters within the US. (Source: 2003 Budget in Brief, US DoT).

⁵ Source: TSA website.

⁶ GAO-03-1150T, Aviation Security Progress and Challenges, 9 September 2003.

⁷ Source: DOT website, the Budget for Fiscal Year 2003.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

first Administrator for the TSA. On the same day, the TSA moved from the DoT to the newly created Department of Homeland Security (DHS).⁸

- **Screener hiring and training:** By the end of 2002, the TSA had hired, trained and deployed around 65,000 passenger and baggage screeners. All of the personnel were trained to operate to consistent, standardised security protocols.⁹
- **100% hold baggage screening:** Before 11 September 2001, only 5% of hold baggage was being inspected at US airports. Most of the inspected bags were carried on international flights. Today, 100% of hold baggage (equating to an estimated 1 billion bags) is screened each year.
- **Federal Air Marshal (FAM) programme:** Prior to 11 September 2001, 33 FAMs were assigned to international flights only. After 11 September 2001, law enforcement officers from other Government agencies were loaned to the DoT and trained as FAMs, allowing the program to quickly expand.

These loaned law enforcement personnel have now been replaced with permanent FAM staff, and the number of FAMs significantly increased. Today they are assigned to high-risk flights. The actual number of FAMs is deemed classified information.

- **Cockpit Door reinforcement:** Prior to 11 September 2001, there were no reinforced doors on US aircraft. All US aircraft now have reinforced doors fitted.
- **Federal Security Directors (FSDs):** Prior to 11 September 2001, the role of FSD did not exist. Some 158 FSDs now assist with the provision of unified airport security.
- **Federal Flight Deck Officers (FFDOs):** Prior to 11 September 2001 no FFDOs were employed; today this figure is in the hundreds. This program allows qualified volunteer commercial passenger carrier pilots to serve as FFDOs to defend the cockpit of an aircraft against acts of criminal violence or air piracy. FFDOs are permitted to carry guns in undertaking this responsibility.
- **Use of Technology:** The TSA is also initiating and developing efforts that focus on the use of technology and information to improve aviation security.

One effort under development, the next-generation Computer Assisted Passenger Pre-screening System (CAPPS II) would use national security and commercial databases to identify passengers who could pose risks for additional screening. Concerns about privacy rights will need to be addressed before this system is implemented. CAPPS II is currently under review.

- **Private Security Screening Pilot Program:** On 18 June 2002, the Under Secretary of Transportation of Security announced that 5 airports would participate in a Private Security Screening Pilot Program.¹⁰ A requirement of ATSA, this programme is intended to test the feasibility of having private contractors perform federally supervised passenger and property screening at airports. The 2-year programme will take place at the following airports: San Francisco International, Kansas City International, Greater Rochester International (New York), Jackson Hole (Wyoming) and Tupelo (Mississippi). The TSA will invite tenders as well as award

⁸ Source: TSA website, biography.

⁸ Source: GAO-03-1150T, Progress Since September 11, 2001, and the Challenges Ahead, 9 September 2003.

⁹ Source: TSA website, 'Then and Now' Charts, 16 Oct 2003.

¹⁰ US Dot Press Release, 18 June 2002.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

and administer the contracts. The TSA will also evaluate the contractors' performance as well as work with the contractors to ensure the highest level of security is provided.

Despite these improvements, many acknowledge that vulnerabilities in the system still remain. General aviation security, airport perimeter security and in particular air cargo are 3 key areas where concerns have been raised. These are outlined later in this report.

The TSA also faces longer-term management and organisational challenges to sustain enhanced aviation security. One of the most important of these challenges involves financing the increased aviation security requirements and controlling costs.

7.6 US aviation security funding mechanisms

In this section, the current funding mechanisms used to finance TSA expenditure and other aviation security activities in the US are outlined. These can be split into 2 main groups:

- Government funding.
- Taxes (fees levied by the US Government).

7.6.1 Government funding of US aviation security

The US aviation industry has historically been a major recipient of Federal funds. After 11 September 2001, the amount provided increased dramatically in an attempt to improve security across the country.

Outlined below are some of the ongoing and one-off funding programmes provided to the US aviation industry to finance improved aviation security.

7.6.1.1 TSA funding

In response to the 11 September 2001 attacks, the TSA has been granted significant funds to implement the major improvements to security within the US.

Figure 7-1: TSA budget request and actual spend FY 2002 – 2004

	FY 2002 \$ billion	FY 2003 \$ billion	FY 2004 \$ billion
Original Budget	\$ 1.3 *	\$ 4.8 *	\$4.82 ***
Actual Spend	\$ 4.8	\$ 7.1	tbc
Variation	\$ 3.5	\$ 2.3	
Aviation Spend	\$ 4.5 **	\$ 6.1 **	\$4.2****

Sources:

*TSA Budget FY 03 Budget in Brief.

**TSA Factsheet, September 11, 2003.

***FY 2004 Budget Briefing, 3 February 2003.

**** FAO-03-1150T Aviation Security Progress and Challenges, pg 20.

Note: The fiscal year for the US Government begins on 1 October and ends on 30 September.

The key financial aspects of the TSA's expenditure over the last 3 fiscal years are summarised below. The FY 2002 and FY 2003 budgets included many large start-up costs, including the purchase and

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

installation of explosives detection equipment. Although these costs will not re-occur in FY 2004, savings are envisaged to be partially offset by recurring costs for maintenance and administration.¹¹

In total, the TSA has had a minimum funding of \$14.8bn for the 3 fiscal years to 30 September 2004.

7.6.1.2 FY2002

The TSA's original total budget for 2002 was \$1.3 billion. Actual spend came to \$4.8 billion, \$4.5 billion of which was attributed to aviation related activities.

A major part of this budget spend was attributed to the TSA taking over screening contracts from airports. From 19 November 2001, screening personnel became Federal employees.

7.6.1.3 FY2003

During FY 2003, the TSA continued implementing their aviation security programme. The budget requested for FY2003 was \$ 4.8 billion, with actual spend during this period increasing to \$7.1 billion, of which \$ 6.1 billion (86%) was attributed to aviation related activities.

7.6.1.4 FY2004

According to the TSA's budget request presentation of 3 February 2003,¹² the TSA requested \$4.82 bn for FY 2004.

Of the \$4.82 bn, approximately \$4.22 bn is allocated to aviation security funding. This represents almost 88% of TSA's budget request and reinforces its primary objective as aviation security provider.

The budget request includes allowance for estimated fee collections of \$2.2bn raised through a combination of passenger and air carrier fees authorised by the ATSA. For the purposes of this report, it has been assumed that the \$4.22 bn is net of the \$2.2bn; therefore funds available to the TSA's FY 2004 are estimated to be around \$6.42 bn.

The following table summarises TSA's budget for aviation security activities for FY2004.

¹¹ Source: TSA website, 13 May 03.

¹² Source: TSA website, 3 February 03.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

Figure 7-2: TSA FY2004 budget breakdown

Activity	Budget (\$m)	% of total
Passenger screening		1,799
Screener payroll	1,360	75.6%
Screener hiring and servicing	153	8.5%
Screener training	72	4.0%
Checkpoint equipment and support	57	3.2%
Private screening contracts	112	6.2%
Computer Assisted Passenger System II	35	1.9%
Registered traveller initiative	5	0.3%
Gate screener initiative	5	0.3%
Baggage screening		944
Screener payroll	798	84.5%
Screener training	46	4.9%
EDS/ETD maintenance	100	10.6%
Security direction and enforcement		1472
Federal Air Marshals	600	40.8%
Airport staff and IT support	575	39.1%
State and local law enforcement support	225	15.3%
K-9 units	17	1.2%
Federal Flight Director Officers	25	1.7%
Air cargo security	20	1.4%
Other	10	0.7%
Aviation Security	4,215	87.4%
Total TSA Budget	4,820	

Source: TSA Fiscal Year 20004 Budget Briefing 3 February 2003

7.6.1.5 Aviation Security Technical Corrections and Improvement Act

The Aviation Security Technical Corrections and Improvement Act approved funding of \$500m for financing security related terminal modifications, which helps to pay for explosive detection system machines at airports. This legislation has not yet been adopted.

7.6.1.6 Flight 100 – Century of Aviation Reauthorisation Act

The FAA Reauthorisation bill is a piece of legislation that must be passed by Congress approximately every 3 years in order to keep the FAA operating. The Act provides for carrier service improvements and promotes airport development. Most of the bill's authorisations extend for the 4 year period of 2004 to 07 with some extending beyond this time frame.

This bill "authorises several new programs including reimbursing airports and carriers up to \$4.1 billion over 5 years for certain security activities; reimbursing general aviation entities up to \$100 million over 5 years for security costs and lost revenue."¹³

¹³ House Budget Committee, Volume 3, Number 3, 11 June 2003.

7.6.1.7 Other financial assistance provided to airports

- **Airport Improvement Programme (AIP)**

The FAA manages a programme of Grants-in-Aid for the planning and development of US airports, including grants for security, safety, capacity and noise-reduction projects.

This programme is more commonly known as the Airport Improvement Programme (AIP).

From 1999 to 2001, US airports received a total of \$2.4 billion in federal grants. Airports Council International (ACI) estimates that terminal modification projects to accommodate the new explosives detection systems required to screen checked baggage will cost a total of about \$3 billion to \$5 billion over the next 5 years.¹⁴

The increased importance of aviation security is highlighted by the fact that during FY 2002, from a total of \$3.3bn in AIP grants, some \$561m (17%) was used to fund airport security projects. This represented an increase by a factor of ten compared to the previous fiscal year (ending 30 September 2001), when expenditure on aviation security related projects totalled \$56.6m.¹⁵

AIP funding for FY 2002 and 2003 totalled \$3.3bn and \$3.4bn respectively.¹⁶

- **Letters of Intent**

Over 3 rounds of negotiations, the DHS has also signed a number of Letters of Intent with 8 major US airports; this funding is worth over \$950m.

These investments are for the installation of explosive detection systems integrated into the airport's baggage handling system. The projected funding is allocated to airports as outlined in the table below:

Figure 7-3: Projected Airport Funding (Letters of Intent)

Airport	Projected Funding (\$millions)
Seattle - Tacoma	\$159
Boston - Logan	\$104
Dallas- Fort Worth	\$87
Denver International	\$67
Las Vegas McCarran)	\$93.75
Los Angeles International	\$256.4
Phoenix – Sky Harbor	\$91.5
Atlanta - Hartsfield	\$93.75
Total	\$952.9

As part of these agreements, the TSA will pay 75% of permitted costs over a 3-4 years period while airports agree to cover the remaining portion of those costs. Permitted capital improvement costs include preliminary site preparations, structural reinforcement to support new equipment, electrical works, heating, air conditioning and other environmental improvements, as well as

¹⁴ Source: GAO-03-497T, Airport Finance, Past Funding Levels May Not Be Sufficient to Cover Airports' Planned Capital Development 25 February 2003.

¹⁵ Source: GAO-03-497T, Airport Finance, Past Funding Levels May Not Be Sufficient to Cover Airports' Planned Capital Development 25 February 2003.

¹⁶ GAO-03-497T, As above.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

conveyor belts, tables and physical enhancements necessary to operate an in line baggage screening system.¹⁷

- **TSA Grants for Airport Terminal Security Enhancements.**

On 16 December 2003, the TSA announced that eight airports have been awarded \$7.8 million in grants for Airport Terminal Security Enhancements. These grants are designed for airports to work with industry to deploy the newest, most advanced technology commercially available to enhance aviation security. The TSA anticipates awarding additional grants for a total of \$17 million.¹⁸

7.6.1.8 Financial assistance to carriers

- **Compensation to US carriers**

In May 2003, the TSA reimbursed \$2.4bn to 66 US air carriers for expenses and revenue forgone related to aviation security. The financial aid was distributed in proportion to the amount of security related fees that eligible carriers have paid the TSA since February 2002.¹⁹

Subsequent payments have been made to carriers and at present a total of \$4.6 bn has been provided. The following figure summarises the amounts of financial compensation provided by the TSA to US carriers up to 10 October 2003.²⁰

Figure 7-4: Carrier compensation payments (top 20 US carriers)

		Total Compensation to Date	
Carrier Name		\$ Millions	% of Total
		at 10 Oct 2003	
1	United Air Lines	774.22	16.69 %
2	American Carriers	693.98	14.96 %
3	Delta Air Lines	635.73	13.71 %
4	Northwest Airlines	428.09	9.23 %
5	Continental Airlines	361.47	7.79 %
6	US Airways	306.94	6.62 %
7	Southwest Airlines	282.81	6.10 %
8	TWA Airlines	144.14	3.11 %
9	American West Airlines	116.71	2.52 %
10	Federal Express Corporation	100.68	2.17 %
	Sub-Total	\$ 3,844.77	83%
	Others	\$ 793.59	17%
	Total Payments (total carriers 427)	\$ 4,638.36	

Source: Air Transportation Safety and System Stabilisation Act

¹⁷ Source: TSA, 7 July 2003.

¹⁸ TSA Press Release, 16 December 2003.

¹⁹ TSA Press Release, 16 April 2003.

²⁰ TSA Press Release, 16 April 2003.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

It is important to note that although this programme provides relief to all US carriers, the top 10 carriers received \$3.8 bn, which represents 83% of the total funds. The top 20 carriers received \$4.3 bn in compensation representing some 91% of total available funds.

To further assist the US aviation industry, the DHS suspended passenger and carrier fees from June to September 2003 in an attempt to boost the weak financial position of US carriers. This suspension applied to both US and foreign carriers.

- **Others Payments to Carriers**

- Cockpit door reinforcement:

On 24 September 2003, the TSA announced an additional \$100m had been set aside to compensate carriers for costs associated with reinforcing cockpit doors. The TSA is coordinating the disbursement of this funding with a similar but already established program at the FAA.

To ensure the funding is appropriately used, the FAA announced that funding would be dependent on the level of modification, i.e. from level 1 - simple modification to level 5 - installation of new doors, with funding distributed as follows:²¹

- 30% when the design is authorised.
- 40% after completion of the first aircraft installation.
- 30% after the modifications are installed in the last aircraft.

- Federal Flight Deck Officers:

In April 2003, the TSA has made available an additional \$8m to continue funding the Federal Flight Deck Officer (FFDO) programme. This programme is aimed at training pilots as federal law enforcement officers authorised to carry guns in the cockpit.²²

7.6.2 Charges levied by the US Government

The US government currently levies two fees: one is a charge on the passenger and the other a charge on the carrier. These charges are:

- The **September 11 Security Fee (passenger fee)**.
- The **Aviation Security Infrastructure Fee (carrier fee)**.

Both fees are intended to contribute to the Federal government's costs of providing aviation security services.

²¹ TSA Press Release, 24 Sept 2003.

²² TSA Press Release, 17 April 2003.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

7.6.3 September 11 Security Fee (Passenger)

Authorised by ATSA, the September 11 Security Fee imposes a charge of \$2.50 (per passenger per segment).

Although the ATSA allows the TSA to charge up to a maximum of \$5.00 per passenger per one-way trip basis and \$10 per round-trip, the charge has been set at 50% of the maximum level (i.e. \$2.50 per passenger per segment) since its introduction on 1 February 2002.

The fee is collected by the carrier (domestic or foreign), having been paid by the passenger in the ticket price, and then passed on to the TSA on a monthly basis.²³

7.6.4 Aviation Security Infrastructure Fee (Air Carrier Fee)

Effective from the 18th February 2002 the fee is carrier specific and dependent on passenger and baggage screening costs incurred by the carrier in 2002.²⁴ Levied on both domestic and foreign carriers the carriers are responsible for forwarding the appropriate amount to the TSA on a monthly basis.

Figure 7-5: Aviation security charges

Effective 1 January 2003	Rate (US\$)	Unit basis
Federal Security Surcharge	\$2.50* (maximum of \$5 per one-way trip and \$10 per round trip)**	Per departing passenger from US airports
Air Carrier Security Fee	Carrier-Specific	Domestic/International Enplanement

Sources:

*TSA, 31 December 2001

**DoT Interim Rule, Aviation security Infrastructure Fees, page 5.

For FY 2002 (ending 30 September 2002), the DoT budget office estimated that \$900 million would be raised from passenger and air carrier fees.²⁵ The following year, 2003, the TSA estimated that this figure would rise to \$2.2 bn.²⁶ This would appear to be far short of the \$6.1 bn the TSA eventually spent.

Recognising the issue of profitability for US carriers, between 1 June 2002 and 30 September 2002, US Congress suspended both fees. This suspension was expected to save carrier passengers and carriers an estimated \$700 million, according to a statement from the TSA.

For FY 2004, the DoT's Inspector General reported that the security fees are estimated to generate only \$1.7 bn in FY 2004²⁷. Given the amount consumers already pay in aviation taxes, the US General Accounting Office (GAO) do not believe the fee could be raised enough in the immediate future to cover TSA's costs without impacting the aviation industry's attempts to improve yields and return to profitability.²⁸

²³ Source, TSA, 31 December 01 / DoT Interim Rule, Aviation security Infrastructure Fees.

²⁴ TSA, 31 December 01 / DoT Interim Rule, Aviation security Infrastructure Fees.

²⁵ DOT 130-01, Dec 31, 2001.

²⁶ TSA, 4 February 2003.

²⁷ GAO-03-1150T, Aviation Security Progress and Challenges, September 2003.

²⁸ GAO, Key Budget Issues Facing the Transportation Security Administration, 17 April 2002.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

In November 2003, the TSA published a notice in the Federal register seeking comments on possible methodologies to revise the Aviation Security Infrastructure Fee. A number of submissions have subsequently been received by the TSA from interested parties including US and foreign carriers.

7.7 Obligations on foreign carriers

In January 2003, the FAA published new standards to protect cockpits from intrusion and attacks. This required US carriers to install reinforced doors to around 7,000 aircraft by 9 April 2003.²⁹

ICAO's High Level Ministerial Conference on Aviation Security in Montreal in February 2002 resulted in the adoption of a worldwide standard for cockpit doors and provisions for monitoring the passenger cabin from the cockpit. ICAO set a deadline of November 2003 for installing new doors, seven months after the FAA deadline for US carriers.

On the 19 June 2002, the FAA published a final ruling requiring foreign carriers to install new approved cockpit doors on aircraft serving the US by 9 April 2003; the same deadline set for US carriers almost 6 months earlier. The FAA ruling also required that foreign aircraft serving the US must have the Phase 1 fixes³⁰ installed by 20 August 2002 providing just a 60-day notice to foreign operators.

The rule also required that the cockpit door must be closed and locked at all times whilst the aircraft is airborne.

There are currently around 130 carriers authorised to operate to the US with the FAA ruling affecting approximately 1,921 foreign aircraft. If the FAA determines non-compliance on the part of a foreign carrier, it can proceed with enforcement actions which can lead to temporary suspension of air services by the carrier into the US.

7.8 Potential Vulnerabilities Remaining within the US Aviation Security System

The US authorities and industry alike have put considerable effort and funding into improving the security of aviation as a whole.

Despite these efforts, industry experts and TSA officials recognise a number of areas may still be vulnerable to attack. These areas relate to air cargo, general aviation and airport perimeter security.³¹

7.8.1 Air cargo security

Both the US GAO and the DoT have reported that risks exist in the security of cargo carried on board commercial passenger and all-cargo aircraft. Potential security risks associated with air cargo include the introduction of undetected explosive and incendiary devices in cargo placed on board aircraft; the shipment of undeclared or undetected hazardous materials on board aircraft; and aircraft hijackings and sabotage by individuals with access to cargo aircraft.³²

To address some of the risks associated with air cargo, the ATSA requires that all cargo carried on board commercial passenger aircraft is screened and that the TSA have a system in place as soon as practicable to screen, inspect or otherwise ensure the security of cargo on all-cargo aircraft. In August

²⁹ US Department of State, 11 January 2002.

³⁰ FAA ruling on cockpit doors defines Phase 1 fixes as installation of steel bars and locking devices.

³¹ GAO-03-1150T Aviation Security Progress and Challenges, 9 September 2003.

³² For example, On 15 November 1979, an explosive device contained in a parcel shipped by US mail exploded on board an American Airlines flight; on 7 April 1994, a Federal Express employee attempted to hijack a company plane and crash it into the company's headquarters. GAO-03-30 (Washington, DC 3 December 2002).

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

2003, the Congressional Research Service reported that less than 5% of cargo placed on passenger aircraft is physically screened.

The TSA's primary approach to ensuring air cargo security and safety and to complying with the cargo-screening requirement in the Act is the 'known shipper' programme. This allows shippers that have established business histories with air carriers or freight forwarders" to ship cargo on aircraft. However, weaknesses have been identified in the known shipper program and in the TSA's procedures for approving freight forwarders"³³

The TSA has taken a number of actions to enhance cargo security, such as implementing a database of known shippers (October 2002). The database is the first phase in developing a cargo-profiling system similar to the Computer Assisted Passenger Pre-screening System (CAPPS II). However in December 2002, the US GAO reported that additional operational and technological measures, such as checking the identity of individuals making cargo deliveries, have the potential to improve air cargo security in the near term.³⁴ In September 2003,³⁵ the GAO reported that the TSA lacks a comprehensive plan with long-term goals and performance targets for cargo security, time frames for completing security improvements and risk-based criteria for prioritising actions to achieve those goals.

The GAO went on to recommend that air cargo in the US should incorporate a risk management approach, include a list of security priorities and set deadlines for completing actions. The TSA agreed with these recommendations and has recently developed an air cargo strategic plan. On 26 September 2003, the TSA were granted \$85 million in funding related to air cargo security in FY 2004. This will enable it to begin implementing critical elements of this plan.

The plan is "threat-based and risk-managed, with the goal to screen 100 percent of high-risk cargo"³⁶. The TSA has identified 3 major elements to this approach:

- Strengthening the current Known Shipper Program through enhanced measures to verify shipper legitimacy.
- Developing a cargo "pre-screening"/profiling system that targets shipments based on a set of rules to flag suspicious shipments.
- Instituting targeted inspections of identified suspicious cargo utilising explosive detection systems (EDS), electronic trace detection (ETD) equipment, canine teams or other approved methods.

7.8.2 General aviation security

Since 11 September 2001, the TSA has taken limited action to improve general aviation (GA) security, leaving it potentially more vulnerable than commercial aviation.³⁷ GA pilots are not screened before takeoff and the contents of GA aircraft are not screened at any point. In the US, there are more than 200,000 privately owned aircraft, located at more than 19,000 airports across the country.

³³ US GAO, Aviation Security: Vulnerabilities and potential Improvements for the Air Cargo System, GAO-03-344, 2 December 2002.

³⁴ GAO-03-344, Vulnerabilities and Potential Improvements for the Air Cargo System, December 2002.

³⁵ GAO-03-1150T, Aviation Security Progress and Challenges, September 2003.

³⁶ TSA Press Release, Air Cargo Security Fact Sheet, 29 September 2003.

³⁷ GAO-03-1150T Aviation Security Progress and Challenges, September 2003.

CIVIL AVIATION SECURITY FINANCING STUDY	7
United States aviation security	

In the last 5 years around 700 aircraft have been stolen from GA airports,³⁸ indicating a potential weakness that could be exploited by terrorists.

The FAA has since issued a notice with voluntary guidance for flight schools and businesses that provide services for aircraft and pilots at GA airports. GAO reported in June 2003 that the TSA was working with industry stakeholders to close potential security gaps in GA. However, GAO stated in its September 2003 (Aviation Security Progress and Challenges) report that the stakeholders have not been able to reach a consensus on the actions required to improve security in GA. GA industry representatives such as the Aircraft Owners and Pilots Association oppose any operational restrictions to GA aircraft and believe that small aircraft do not pose a significant risk to the country. Work continues in this field

7.8.3 Airport perimeter security

Airport perimeters present a potential vulnerability by providing a route for individuals to gain unauthorised access to aircraft and secure areas of airports. A recent incident at New York's Kennedy International Airport highlights this issue. In August 2003, boaters wandered onto the airside secure area after their boat became beached. Recent attacks with shoulder-fired missiles on aircraft in both Kenya and Iraq have also highlighted the vulnerability of airport perimeters.

7.9 US aviation security - summary

The events of 11 September 2001 focused attention on how aviation security was being provided and regulated in the US. This attention revealed numerous shortcomings that prompted increased scrutiny of not only the *level* of aviation security being provided but also *how* it was being provided in the US.

The US Government reacted by ensuring that more resources were devoted to providing aviation security as well as to research and development activities that should lead to improvements in aviation security in the future.

Since 11 September, aviation security in the US has undergone dramatic change. The most visible change is that the federal government has assumed direct responsibility from the carriers and airports for the actual provision and funding of aviation security. With the enactment of ATSA, a single body, the TSA assumed overall responsibility for aviation security within the US.

The US government has recognised that it has an important role to play in aviation security. The federal role has moved from the setting and monitoring of security standards to one of financing and implementing the standards. This substantial enlargement of governmental involvement is in contrast to the public-private partnerships that dominate implementation of aviation security standards in Europe. The Private Security Screening Pilot Program running at the 5 US airports (2002 - 2005) will be important in determining the future organisational structure for aviation security in the US.

In an attempt to overcome the serious vulnerabilities within aviation security, as exposed by the events of 11 September 2001, the financial assistance provided by the US government has increased considerably. The US government are estimated to have provided financial assistance of almost \$32 billion to the US aviation industry from FY 2002 to FY 2004. The figure below summarises the main components of this funding.

³⁸ GAO-03-1150T Aviation Security Progress and Challenges, September 2003.

Figure 7-6: Total US government funding (2002 - 2004)

	Total Funding 2002 – 2004 \$ billion
TSA actual and forecast (aviation only)	\$14.8
Aviation Security Technical Corrections and Improvement Act	\$ 0.5
Flight 100 – Century of Aviation Reauthorisation Act	\$ 4.1
Airport Improvement Program (AIP)	\$ 6.7
Letters of intent	\$ 1.0
Carrier compensation payments	\$ 4.6
Cockpit door reinforcement payments to carriers	\$ 0.1
Total	\$ 31.8

Much of this government funding was to assist with improvements to passenger and baggage screening activities. These improvements included both capital expenditure and personnel costs as a result of the new requirements under the ATSA.

Airports, needing to improve security and/or structural improvements to support new equipment, received significant financial assistance from the US government through both the letters of intent and the AIP.

Carriers also benefited from this government funding, receiving a total of \$4.6bn (to October 2003) in terms of compensation payments from the US government. This compensation was for expenses and revenue forgone as a result of security improvements.

The Flight 100 – Century of Aviation Reauthorisation Act also reimbursed airports and carriers for security costs and lost revenue.

The passenger security fees created by ATSA, which were intended to pay for the costs of aviation security, are not expected to cover the costs of providing the increased security measures. At the moment the US Government is financing the shortfall that in FY 2004 is expected to be some \$2.5billion.

Despite the significant resources and efforts expended, vulnerabilities within the system still remain, the most significant of which is in the area of air cargo where the industry's attention and resources are now being focused. Publication of the TSA's Air Cargo Strategic plan together with the \$85 million funding to help begin implementation of the plan will go some way to reduce the vulnerabilities in this area.