



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

# **Annual Report to Congress on Civil Aviation Security**

**January 1, 1994 - December 31, 1994**

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Washington, D.C. 20591

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Report of the Administrator of the  
Federal Aviation Administration to  
the United States Congress pursuant  
to Section 44938, Title 49,  
Transportation

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## **I. INTRODUCTION**

### ***A. Strategic Goals***

This report is submitted pursuant to Title 49, U.S.C., Sections 44938 and 44907 (formerly Sections 315(a), 316(k), and 1115(c) of the Federal Aviation Act of 1958, as amended.

The Federal Aviation Administration's (FAA) mission in aviation security is to protect the users of commercial air transportation against terrorist and other criminal acts. Because terrorists seek to destroy public confidence in the safety of air travel and disrupt this vital segment of the U.S. and world economies, the continued growth of commercial air transportation hinges on the success of aviation security. Protecting the air traffic control infrastructure--FAA facilities and equipment, and the employees who operate them--is also part of that same mission. The FAA also assists in interdiction of drugs and narcotics coming into the United States.

The responsibility for aviation security is a shared one, and so are its costs. The FAA continuously assesses threats, assigns measures for both current and increased threat situations through regulations, and works with the aviation industry to implement those measures, using enforcement action where necessary. The aviation industry, through its managers and employees, implements those measures. Air carriers are responsible for applying security measures to passengers, service and flightcrews, baggage, and cargo--in short, everyone and everything that enters the aircraft. Airports are responsible for maintaining a secure ground environment and providing

local law enforcement support. The cooperation of passengers and shippers is also needed.

Aviation security is a national and international mission. The FAA's efforts concentrated on U.S. airports, U.S. air carriers wherever they fly, and foreign carriers serving the United States. The FAA also works closely with other governments in raising the minimum level of security provided by all air carriers and airports, regardless of nationality. As carriers share or interchange codes, equipment, personnel, management, and investment, global aviation increasingly requires global cooperation in security.

In carrying out its mission, the FAA:

- (1) distinguishes between baseline measures required under "normal" threat conditions and more stringent measures needed to meet increased threats;
- (2) determines corresponding measures based upon threat levels in accordance with the Aviation Security Contingency Plan;
- (3) concentrates its measures--and those of the industry--on particularly vulnerable parts of the aviation system in any given situation;
- (4) seeks the optimal mixture of people, equipment and procedures, to incorporate advanced technology wherever practical;
- (5) involves all parties, groups, or organizations that have a stake in security in the design and application of those measures; finally, and most importantly;

(6) realistically tests and implements aviation security measures to ensure that they are working, and to make adjustments where necessary.

***B. Implementation of the Aviation Security Improvement Act of 1990***

The Aviation Security Improvement Act (ASIA) (P.L. 101-604) (now Title 49 U.S.C, Section 44931), enacted November 16, 1990, is perhaps the most comprehensive legislative action taken to improve all aspects of aviation security. It mandates many regulatory actions affecting several agencies, requires new reports, creates new organizations and staffing requirements, and empowers the FAA to promote and strengthen aviation security through an expedited, more focused research and development (R&D) program. The FAA identified 38 actions in the law to be taken by the agency.

By the end of 1994, FAA had completed all but 2 of the 38 statutory mandates when it set employment and training standards, issued the last report to Congress on Airport Vulnerability, and certified an explosives detection system (EDS). The only remaining mandates are (1) implementation of a requirement for criminal history and background checks, and (2) deployment of a certified EDS.

The year 1994 was particularly significant for FAA's implementation of this Act. In December 1994, the FAA took a major step in improving airport security with certification of the first explosives detection system for automated screening of checked baggage. The machine, which uses a

“computer tomography” x-ray system based on medical CAT Scan technology, is named the CTX-5000 and was developed jointly by InVision Technologies of Foster City, CA. under FAA contract. Certification of the CTX-5000 followed 9 years of research and development (R&D) and an investment by FAA of over \$8 million dollars of the total \$90 million R&D program. There have been major technical challenges in developing a system which can automatically screen bags for small amounts of explosives, with a high probability of detection, and a low false alarm rate.

The FAA's next step will be to conduct at least three operational demonstrations of the CTX-5000, beginning in late 1995. The purpose is to solve the operational challenges involved in integrating an explosives detection system into a baggage system and to develop precise estimates of costs for wide scale deployment.

## **II. PROGRAMS**

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### ***A. Criminal Acts Against Commercial Aircraft***

For the first time in several years, explosive devices detonated on board two aircraft in flight and a third attempt was stopped before the plane took off. None of these incidents involved U.S. air carriers. A Panamanian plane crashed in July, killing all 21 people on board, and a Philippine Airlines plane landed safely when a device exploded and killed a passenger. The third incident occurred in the Georgian Republic in Central Eurasia. In addition, there were numerous bomb threats made against aircraft and airports; however, it is important to note that bomb threats do not directly correlate with the number of actual attempts to detonate a bomb. Experience from searches conducted as a result of bomb threats has shown that the vast majority are hoaxes.

There were no hijackings recorded either in the United States or on U.S.-registered aircraft in 1992, 1993, or 1994. One incident was recorded each year in 1990 and 1991. In contrast, during the past 5 years, 128 hijackings of foreign-registered aircraft were recorded worldwide. The greatest number of incidents (39) during this 5-year period occurred in 1990; the fewest (12) were in 1992. Twenty-three hijackings were recorded worldwide in 1994.

Most of the 130 hijackings during the past 5 years (128 foreign carriers and 2 U.S. carriers) took place on domestic, that is, internal flights. Of the 23 hijackings in 1994, 16 involved

aircraft on domestic flights. More than one-third of the hijackings in 1993 occurred in China. No United States bound aircraft has been hijacked since December, 1993 (the German aircraft which was hijacked to New York in 1993 was originally bound to Cairo via Addis Ababa from Frankfurt).

In 1994, no one country had a significantly high number of hijackings, as occurred in 1993. Few of the hijackings in 1994 were the work of persons or organized groups espousing political goals. Rather, the hijackers' hope of bettering personal circumstances was a significant motivating factor in many of the incidents.

The overall number of incidents can serve as a rough index of the level of criminal activity involving commercial aircraft. Because of differences in situations specific to individual countries and varying motivation among perpetrators, any generalizations must be very carefully drawn. Overall, the level of threat of criminal and terrorist acts against U.S. carriers operating in certain locations overseas [those requiring extraordinary security measures] remained at a similar level to previous years. In 1994, as in 1993, no attacks against U.S. aviation interests occurred in the United States, and no plans of attack were identified. The threat level, as in past years, was assessed to be low; however, an element of increasing uncertainty has been introduced into the assessment. The bombing of the World Trade

Center (WTC) and the uncovering of a

conspiracy to bomb several other targets in New York City in 1992, has shown that international terrorist elements can operate in this country. These events also raise the possibility that additional attacks could occur. Although civil aviation was not specifically targeted in either of these instances, this cannot be completely discounted for the future.

### ***B. Summary of Programs***

#### **Federal Air Marshals (FAM)**

The FAM program provides specially trained, armed teams of civil aviation security specialists for deployment worldwide on anti-hijacking missions on U.S. air carriers' flights. The overall goal is to protect the traveling public, passengers, and flightcrews on U.S. air carriers by deterring hijackings.

FAM's are volunteers. They undergo sophisticated and realistic initial and recurrent training, and prior to every deployment, FAM's complete "standardized deployment preparations." All FAM's pass initial screening which includes physical fitness standards.

During 1994, FAM's provided in-flight security on flights of all major U.S. air carriers to and from 40 airports in 30 countries.

#### **Federal Security Managers (FSM)**

FSMs represent the Associate Administrator on aviation security matters at 19 Category X airports. FSM's have been stationed at the Category X airports since October 1, 1991. FSM's are the FAA's designated security representative at these airports. They maintain direct communication with key airline and airport managers, and law enforcement offices.

#### **Civil Aviation Security Liaison Officers (CASLO)**

Civil aviation security liaison officer are assigned to cover every airport outside the United States where extraordinary security measures are in place. CASLO's report directly to the Office of the Associate Administrator for Civil Aviation Security. CASLO's are the primary FAA contact with U.S. Embassies and host governments on civil aviation security matters. Primary responsibilities include assisting U.S. and foreign air carriers to implement FAA security requirements, the exchange of threat information, and onsite FAA coordination for aviation security incidents.

CASLO's are located in 18 locations and cover the areas as shown in the table below:

<b>CASLO</b>	<b>Locations Covered</b>
Paris	France, Algeria, Morocco, Tunisia
Vienna	Austria, Albania, Bulgaria, Croatia, Hungary Macedonia, Romania, Serbia/Montenegro, Slovenia, Bosnia-Herzegovina
Rome	Italy, Greece, Israel, Turkey, Armenia, Azerbaijan, Cyprus, Syria, Lebanon
Copenhagen	Denmark, Finland, Norway, Sweden
Germany	Germany
U.K.	United Kingdom, Ireland, Iceland
Spain	Spain, Portugal, Cape Verde
Brussels	Belgium, Luxembourg, Switzerland, Netherlands, Czech Republic, Slovak Rep.
Brussels	Russia, Latvia, Estonia, Lithuania, Ukraine, Georgia, Moldova, Belarus, Poland
Dakar	All nations in Africa except for those specifically stated and covered by CASLO's in Paris, Madrid, and Manama
Manama	Bahrain, Afghanistan, Djibouti, Egypt, Eritrea, India, Iran, Iraq, Jordan, Kenya, Kuwait, Madagascar, Mozambique, Namibia, Oman, Pakistan, Qatar, Saudi Arabia, Seychelles, Somalia, S. Africa, Sudan, Swaziland, Tanzania, Turkmenistan, Uzbekistan, UAE, Yemen
Sydney	Australia, NZ., Cook Islands, Fiji, French Polynesia, Kiribati, Nauru, Micronesia, N. Caledonia, Solomon Is., Tonga, Vanuatu, Western Samoa
Bangkok	Thailand, Hong Kong, Taiwan, Vietnam
Singapore	Singapore, Indonesia, Malaysia, Papua New Guinea, Philippines
Tokyo	Japan, China, S. Korea
Buenos Aires	Argentina, Bolivia, Brazil, Chile, Paraguay, Uruguay
Miami	Belize, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Nicaragua, Panama, Peru, Venezuela
Miami	Caribbean Nations

**Principal Security Inspectors (PSI)**

A principal security inspector is assigned to each certificated U.S. air carrier required to adopt a security program under Federal Aviation

Regulations (FAR) Part 108 and each foreign air carrier subject to FAR Part 129.25. The PSI serves as a liaison between the FAA and the air carrier's corporate security office, representing the Associate Administrator and all FAA security field elements. The PSI works closely

with the federal security managers and the civil aviation security liaison officers to ensure the carrier's compliance with FAA requirements and to address areas of concern with the carrier's corporate security representatives. The PSI is responsible for approving and issuing amendments to the air carrier's individual security program, as well as providing FAA policy guidance to the air carrier when regulations are developed or revised. The PSI also approves and monitors the air carrier's security training curriculum.

### **Canine Explosives Detection**

The FAA canine explosives detection program helps to prevent the introduction of improvised explosive devices and other explosive materials into the civil aviation transportation system. Currently, 31 airport authorities and local law enforcement entities participate. There are over 100 teams located at Category X, I, and II airports. A canine team is defined as one dog and one handler.

These canine teams are FAA-certified annually. They must pass a comprehensive evaluation, detecting 9 different types of explosives (TNT, military C-4, smokeless powder, potassium chlorate, water jells, ammonia dynamite, nitro dynamite, and detonation cord) in five areas: aircraft (widebody and narrowbody), vehicles, terminal, freight (cargo), and luggage. The FAA provides initial and refresher training for all handlers and single purpose explosive detector dogs.

### **Compliance and Enforcement (C&E)**

Federal Aviation Regulations require the implementation of security programs by airports and air carriers. These security programs contain procedures to prevent or deter aircraft hijackings, sabotage, and other criminal acts. The FAA and the aviation industry constantly review the procedures to ensure their effectiveness in countering threats to civil aviation. Compliance with the FAR is accomplished through FAA inspections and enforcement actions.

While striving to achieve compliance through cooperation, the FAA must ensure that the personnel of air carriers, airports, and other organizations properly comply with the FAR and applicable security programs. FAA civil aviation security special agents inspect the aviation industry's security operations at regular intervals and at unscheduled times. During the inspections, weaknesses and deficiencies are corrected, security violations are identified, and, if necessary, enforcement action is initiated. Enforcement may take the form of administrative actions (warnings or letters of correction), civil penalties, certificate revocation, or criminal prosecution.

In 1994, 215 U.S.-scheduled and public charter air carriers were required to follow FAA-approved security programs. Each of these U.S. air carriers adopted the Air Carrier Standard Security Program (ACSSP) developed by the FAA in consultation with the industry. The program requires each air carrier to implement standard security procedures. The FAA has the authority to amend the ACSSP when safety and the public interest require, it after providing carriers a period of time to review and

comment on the proposed amendment. In addition, the FAA may issue an Emergency Amendment to the ACSSP, effective upon receipt, if immediate action is required. In 1994, 217 foreign scheduled and public charter air carriers serving airports in the United States were also required to follow FAA-approved security programs. U.S. regulations require foreign air carriers to submit security programs to the FAA for review and acceptance.

The 432 domestic and foreign-scheduled and public charter air carriers serve 501 airports within the United States regulated under FAR Part 107. Each airport is also required to adopt and use a security program to provide a secure operating environment for the air carriers. Of the 501 regulated airports, 19 are designated as Category X, based on passenger traffic, complexity, and other special considerations.

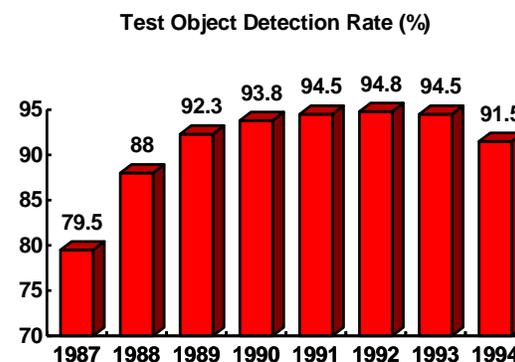
### **Screening Checkpoint Testing**

This section of the report discusses the effectiveness of screening procedures of all passengers and all property intended to be carried in the aircraft cabin in air transportation or intrastate air transportation.

In 1987, the FAA amended the ACSSP to require carriers to detect FAA-simulated weapons and explosive devices. The agency began taking enforcement action for each carrier's failure to detect an FAA test object.

The following data depicts a favorable trend in systemwide weapon and explosives test object detection rates. Improvements were attributed to signage required to be placed in front

of the checkpoints to help educate or remind passengers and some policy changes in compliance and enforcement previously discussed.



The FAA realizes that screeners are not trained to detect FAA test objects; they are trained to detect weapons, firearms, and explosive devices. Because they are tested with a small number of approved "test objects," an unintended consequence is that screeners sometimes specifically look for those test objects. New and more challenging test objects have been developed and phased into the training and testing process to provide variety and to more realistically portray the type of weapons, explosives, and techniques used by terrorist groups.

A new test object has been developed called the modular bomb set (MBS) which more realistically simulates a range of improvised explosive devices. All items used in the MBS are real, off-the-shelf working components, although the explosives are represented by simulants (simulated explosives) and the detonators are all inert. The components of the MBS, which consists of a timer, initiator (inert), power source and explosive simulant, can be configured to any one of 48 configurations.

In 1994, the FAA started evaluations at U.S. airports to determine the effectiveness of the MBS as a training tool and to expose and increase security screening personnel familiarity to simulated improvised explosive devices which are reflective of more sophisticated and diverse terrorist threats. Several air carriers have expressed interest in purchasing the MBS for training, although there

is no regulatory requirement yet to do so. In 1995, the evaluations will be analyzed to help determine how the MBS can be most effectively utilized in training security screening personnel.

### Civil Aviation Security Airline Passenger Screening Results 1990 -1994

	1990	1991	1992	1993	1994
Persons Screened (In Millions)	1145.1	1015.1	1110.8	1150.0	1261.3
<b>WEAPONS DETECTED:</b>					
Firearms	2549	1644	2608	2798	2994
Handguns	2490	1597	2503	2707	2860
Long guns	59	47	105	91	134
Explosive/ Incendiary Devices*	15	94	*167	251	505
Other Dangerous Articles**	304	275	**2341	3867	6051
<b>PERSONS ARRESTED:</b>					
Carriage of firearms/explosives	1336	893	893	1354	1433
Giving false information	18	28	28	31	35

\*From 1992 through 1994, the method of counting “explosive/incendiary devices” was incorrect. It inflated numbers in this category. Individual items were counted rather than packages (i.e., one box of firecrackers counted as 20 firecrackers; one box of ammunition counted as 50 cartridges). This situation has been rectified and a more valid count will be shown in future annual reports.

\*\*Since 1992 “ other dangerous articles” have included stunning devices (stun gun, taser, electronic/shocking brief case), chemical agents (tear gas, mace, Oleo Capsicum spray (O.C and pepper spray)), martial arts equipment, knives, bludgeons, and certain other designated items.

#### Explosives Detection System

FAR Part 108.20 requires air carriers to use an explosives detection system (EDS) approved by the FAA and when the Administrator so requires, to screen checked baggage on

international flights. Section 44913, Title 49, Transportation, mandates that prior to a requirement for widespread deployment of EDS, the Administrator must certify, based on tests using independent test protocols, that EDS performance meets

performance criteria in detecting the "amounts, configurations, and types of explosive material which would likely be used to cause catastrophic damage to commercial aircraft." The industry has raised concerns about the purchase, installation, cost, and operational impact of EDS deployment.

In 1994, the FAA tested the first candidate submitted for certification, using its new security laboratory at the FAA Technical Center. This unique facility was designed to permit testing of detection equipment with live explosives. On December 9, 1994, the FAA approved the InVision CTX 5000 as the first certified EDS.

EDS deployment will not be easy. To help bring it about, FAA will demonstrate, starting in fall 1995, EDS systems in actual airports to develop practical guidance for industry. In addition to the EDS demonstrations, the FAA will develop and apply an extensive EDS operational cost model. After airport demonstrations and modeling, the FAA will consider the scope and timing of EDS deployment for international flights. The FAA will carefully weigh the costs and potential benefits of deploying equipment, especially with regard to acquisition, costs, size, and weight.

In the meantime, two Thermal Neutron Analysis (TNA) devices that were operational at San Francisco International Airport to screen checked baggage have been decommissioned. The final report from this demonstration will be delivered to FAA by the contractor in June 1995 and will provide data that will be useful in future EDS deployment.

#### Container Hardening

To complement the R&D efforts in explosives detection, an aircraft hardening program is being conducted by the Technical Center's Aviation Security Research and Development Service (ACA) in Atlantic City.

The specific goal of the program is to reduce the vulnerability of commercial aircraft to terrorist threats by:

- (1) determining the minimum size of explosive that must be detected;
- (2) identifying what can be done to the current and future fleet of commercial airliners to make them less susceptible to explosive sabotage;
- (3) hardening aircraft cargo and baggage containers to reduce the vulnerability of aircraft to explosive devices; and
- (4) determining the threat to aircraft from projected energy and/or other electromagnetic-based terrorist acts.

The FAA has also begun a congressionally mandated study on the tradeoffs between explosives detection levels, blast management, blast containment techniques, structural enhancements and the costs and investment levels required. Upon completion of the container-related research at the end of FY 95 and upon completion of an operational demonstration of prototype containers in FY 97, the FAA will provide Congress with a full report detailing the cost and effectiveness tradeoffs between container hardening and other hardening and blast management techniques.

#### Human Factors

The FAA's primary objective in this area is to find ways to enhance human performance in security. The FAA is focusing on improving performance at the screening checkpoint. SPEARS

offers opportunities for raising screener performance through improvements in selection, initial training, recurrent training, screener certification, and operational performance assessment. Combined with enhanced x-ray equipment, or even independently, SPEARS can lead to a screening checkpoint with improved performance. Also underway, is an attempt to combine technologies and procedures to screen high-risk passengers in the domestic system.

Finally, human factors research will also be applied to security R&D products in other program areas that will ultimately be deployed throughout the system, such as explosives detection systems.

#### **Foreign Air Carrier (FAC) Security**

The FAA is required by Section 44931 et seq of Title 49, Transportation to ensure that passengers are provided a similar level of protection when flying to or from the United States on foreign air carriers as they are when flying on U.S. air carriers from those same airports. FAR Part 129 requires FAC's operating to the United States to submit security programs to the FAA for acceptance for their operations to and from the United States. FAC's may adopt the model security program (MSP) prepared by the FAA, submit their own security programs for review, or refer the FAA to a foreign government that performs security procedures at a last point of departure to the United States.

At the end of 1994, there were 171 FAC's requiring security programs operating to and from the United States. Most of these carriers (74)

operated from various countries located in Europe, Africa, and the Middle East, while carriers from Latin America and the Caribbean (42) constituted the largest groups from all other geographical regions. All FAC's have been required since September 1992 to adopt the FAA's MSP when operating from the United States. Most of the FAC's have adopted either the FAA's MSP, both for flights from or to the United States, or have submitted an acceptable program that meets the performance standards contained in the MSP.

Foreign governments, however, remain concerned about the extraterritorial application of U.S. law and possible infringement of their sovereignty. The concerned foreign governments are signatories of the Chicago Convention and have specifically agreed to apply Annex 17 of the Convention, which contains universally recognized standards and recommended practices for safeguarding international civil aviation against acts of unlawful interference.

Because of these sensitivities and because information on threats and countermeasures are not as easy to obtain, ensuring that a similar level of protection is provided on foreign carrier flights from last points of departure overseas to the United States is inherently difficult. Nevertheless, the FAA has an active program underway to do just that.

Most foreign carriers already provide a similar level of protection. The FAA is moving with determination to initiate discussions with the relatively few carriers (and their governments) for which the FAA's analysis showed

a need for additional security measures.

Successful negotiations with 14 foreign carriers were conducted in 1993 and 1994, and those carriers are now conducting strengthened security measures. Discussions with the remaining two carriers are proceeding on a fast track. The FAA will continuously reassess the threats against all foreign carriers and will not hesitate to discuss and, if necessary, impose the additional security measures needed to meet the threat.

### **Foreign Airport Assessment**

As mandated by Section 44907 et seq. of Title 49, Transportation, the FAA performs scheduled, onsite formal evaluations of foreign airports served by U.S. carriers or each last point of departure for foreign air carriers serving the United States, those foreign airports which pose a high risk of introducing danger to international travel, and such other airports as the Secretary of Transportation may deem appropriate. The purpose of the assessments is to determine the extent to which foreign aeronautical authorities effectively maintain and administer security measures.

Approximately 244 foreign airports qualify for assessment under the law. This number fluctuates as changes in air carrier service occur. In recent years, the total number has slowly risen as more airports seek to meet international travel demands, and as more carriers, both foreign and U.S., expand their international routes. The number of FAA assessments at each foreign airport is based on reviews and analyses of current resources and threat conditions.

In 1994, the FAA conducted 129 foreign airport assessments. As a result of these assessments, the FAA made 414 security recommendations to foreign governments. Recommendations were made in the areas of access control, airport administration, screening, airport emergency planning, national administration, baggage control, and law enforcement support.

On October 8, 1992, an assessment of the airport in Lagos, Nigeria, resulted in an immediate public notification without any 90-day notice. As a

result of the public notice, FAA provided technical assistance and security training for 9 months to the Nigerian Government. In July 1993, a second assessment was conducted in Lagos. On August 11, 1993, the Secretary suspended air service between the United States and Lagos citing the failure of cognizant authorities to satisfactorily correct deficiencies. Another assessment was conducted in April 1994 and the Secretary determined that the suspension should remain in effect.

### **Aviation Security Training**

The FAA develops and manages an extensive training program for FAA and non-FAA domestic and foreign personnel involved in civil aviation security.

Resident technical training courses are conducted at the FAA Academy in Oklahoma City, OK. Interagency training sources for other specialized training such as communications security, criminal investigations, etc., are delivered to FAA personnel at various locations throughout the country.

Upon request, special interest seminars are developed and delivered to local law enforcement officers; airport, air carrier managers, security personnel; and foreign airport managers and aviation officials at various sites throughout the United States.

The FAA also provides aviation security training to foreign airport managers from developing countries. This is a resident course at the FAA Academy in Oklahoma City, OK., and is for English-speaking students only.

The FAA is a partner with other government agencies via the

Department of State Anti-Terrorism Assistance Program. This program provides technical assistance to foreign countries in the form of security surveys of foreign airports and subsequent security training, and/or technical support necessary to bring the airport into compliance with criteria established by the International Civil Aviation Organization (ICAO) and FAA airport security minimum standards. This cooperative effort ensures that state-of-the-art security concepts and techniques are applied worldwide to enhance aviation safety and airport security.

### **Multilateral Activities**

#### **International Civil Aviation Organization (ICAO)**

ICAO is a specialized agency of the United Nations that was established by the Chicago Convention in December 1944. ICAO establishes international aviation security standards and recommended practices (SARPS) for its 183 member states. Three pertinent conventions (Tokyo-Hague-Montreal the Protocol supplementary to the Montreal Convention) provide the foundation for these SARPS. The Associate Administrator for Civil Aviation Security works closely with ICAO to strengthen these standards and to ensure compliance with them throughout the international aviation system.

Aviation security continued to be one of ICAO's top priorities in 1994. Although aviation security continued to be listed as one of ICAO's top priorities in 1994, for the first time since its inception, the aviation security panel of experts did not meet. The reasons given by the unlawful interference committee, which

oversees the panel's work, were a lack of funds and relatively few recent aviation security incidents. The panel is scheduled to meet in the late spring of 1995 to review the adequacy of the SARPS contained in Annex 17. The panel also reviewed proposed changes to the ICAO Security Manual, the implementation document utilized to a great degree by less developed countries. An amendment to the Security Manual is scheduled to be published by December 1995.

Recognizing the continued importance of aviation security in ICAO and the needs of the expanded aviation security office, the United States continued to provide two FAA security specialists to ICAO at no expense to the organization. These specialists are utilized by ICAO to conduct security surveys and training for countries in need throughout the world.

On March 1, 1991, the United States and 39 other countries signed a "Convention on the Marking of Plastic Explosives for the Purpose of Detection." The convention was the result of 2 years of work by the ICAO ad hoc group of specialists on the detection of explosives and the ICAO legal committee. Submission of the convention to the United States Senate for ratification is planned for 1995. The production of marked plastic explosives in the United States will begin following this ratification. The FAA has been working with the Institute of Makers of Explosives and anticipates the full support of the explosives industry during the ratification process.

*European Civil Aviation  
Conference (ECAC)*

The ECAC is an intergovernmental consultative organization that was established in 1955 by the Council of Europe and with the active support of ICAO. ECAC's objectives are to encourage the safe and orderly development of civil aviation to, from, and within Europe. The Conference in 1994 had 31 member states.

In the field of security, ECAC's objective is to ensure the maximum level of security possible both within ECAC and with its partners serving its airports. ECAC member states apply ICAO Annex 17 Standards and Recommended Practices. In addition, supplementary measures, appropriate to the conditions pertaining in Europe, are promulgated by ECAC through its Security Manual which undergoes constant review. While the aviation security measures contained in the manual are not mandatory, the expectation within ECAC is that all member states will comply. The United States (FAA) and Canada have been granted permanent observer status to the ECAC Security Committee.

### **III. ACCOMPLISHMENTS**

The following is a brief summary of accomplishments achieved by the FAA in aviation security in 1994.

#### **Cargo and Mail Security**

The security programs of over 2,200 indirect air carriers (air freight forwarders) were approved by the FAA and entered into the Civil Aviation Security Information System.

A revised Memorandum of Agreement between the FAA and the

United States Postal Service was executed.

A comprehensive guide for the inspection of air carrier cargo security requirements within the United States was issued to all air carriers and FAA security inspectors.

An inspection protocol to monitor the cargo security and hazardous materials obligations of indirect air carriers was field tested by three FAA regional offices-New York, Los Angeles and Chicago.

### **Checked Baggage**

The FAA took a major step in improving airport security with certification of the first explosives detection system (InVision CTX 5000) for automated screening of checked baggage.

The FAA Technical Center successfully completed a laboratory demonstration of Nuclear Quadrupole Resonance explosives detection device.

The FAA has developed new profile criteria to improve upon the current standards. The new criteria better enables us to identify high-risk passengers thereby allowing air carriers to focus resources on these individuals. Final implementation is scheduled for spring 1995.

A change to the ACSSP was issued that deleted the requirement for random selectees and established new training standards for profilers due to the issuance of a new FAA criteria. The training program for profilers has been updated and new requirements for testing proposed. Final implementation is also scheduled for spring 1995.

### **Contingency Plan**

The AVSEC Contingency Plan was developed and placed in the Airport and Air Carrier Security Programs. Air carriers and large airports are required to conduct joint annual tabletop exercises. The exercises require airports and air carriers to simulate implementation of countermeasures identified by the FAA, identify local operating procedures that would be required to respond to deteriorating civil or political situations, specific threats against civil aviation, and other changes in threat conditions. The plan will allow government and industry to quickly concentrate countermeasures to meet specific or broad threats of aircraft hijacking, sabotage, and/or related crimes against civil aviation. In July 1994, the AVSEC Contingency Plan was actually implemented for U.S. air carrier passenger flights to Israel.

### **Airport Security**

From January through June 1994, the Office of Civil Aviation Security Operations conducted in-depth, focused inspections of access control measures and identification display and challenge procedures at 74 of the nation's busiest airports. This effort was initiated following issuance of an Office of the Inspector General report in September 1993. The focused inspections served identified weaknesses in the system. FAA implemented action plans for improvement and continues to monitor access control procedures.

### **International Aviation**

A basic risk assessment of all foreign carriers providing service to the United States was conducted and improved security measures were

successfully negotiated with 14 carriers.

### **Aviation Security Training**

The FAA developed a “Law Enforcement Officers Flying Armed Training Program.” Instructor and student handouts were printed and distributed to Federal, state, and local law enforcement agencies. The package includes criteria for "need" to fly while armed and information for aircrew. It promotes understanding of differences among air carriers' corporate policy and provides guidelines for transportation of prisoners. This training program was implemented in anticipation of requirements in the revision to FAR 108.

During 1994 the FAA trained:

- 366 FAA students in basic and advanced aviation security programs;
- 517 non-FAA students in special interest aviation security seminars at local sites;
- 73 international students from Albania, Algeria, Bulgaria, Czech Republic, Ethiopia, Eritree, Ghana, India, Indonesia, Mexico, Morocco, Malaysia, Panama, Philippines, Romania, Slovenia, Taiwan, and Thailand. They attended two FAA-sponsored international civil aviation security seminars;
- 217 international students from the Republic of the Marshall Islands and the Federal States of Micronesia who attended seven civil aviation security technical assistance seminars sponsored

jointly by FAA and the Department of Interior; and

- 270 international students from Bolivia, Chile, Egypt, Greece, Georgia, Panama, Turkey, and Venezuela who attended courses sponsored by the Department of State Anti-Terrorism Assistance Program. In addition to training, the FAA's role in ATAP also included training needs surveys for Chile, Cyprus, Czech Republic, Georgia, Egypt, and Panama.

### **Drug Interdiction**

Implementing instructions for aircraft seizure for violations of Title 49 USC App. 1472, Criminal Violations of the FAA Act, were developed jointly by the FAA, Drug Enforcement Administration (DEA), and U.S. Customs Service (USCS).

The Drug Interdiction Support Program completed 207 airmen certificate and aircraft registration revocation or suspension actions in FY94. This is an 85 percent increase over the FY93 figure.

The Federal Prisons match was reinstated with the necessary agency and departmental approvals. In conjunction with the Drug Enforcement Assistance Act of 1988 and 14 CFR 61.15 (offenses involving alcohol or drugs), the FAA will take certificate action against airmen convicted of drug-related offenses. The names of approximately 19,900 inmates convicted for drug-related offenses are matched annually against the airmen records in Oklahoma City for 1995.

A Federal Probation/Parole Match was established. The FAA will and take certificate action against airmen

convicted of drug-related offenses but not confined in Federal Prisons. Approximately 39,000 names will be matched against the airmen records in Oklahoma City in 1995.

## **APPENDIX A. Events Since the Bombing of Pan Am 103**

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The bombing of Pan Am 103 resulted in perhaps the largest single redirection of resources mandated by Congress in the world of air transportation since the founding of the FAA itself. The Aviation Security Improvement Act (ASIA) of 1990, developed from recommendations of the President's Commission on Aviation Security and Terrorism, mandated about 38 specific actions that were assigned to the FAA. To date, 37 have been completed. The last action requiring employment investigations and, in some cases, criminal history records checks is planned to be completed (final rule) in the Summer 1995.

The most important are:

- ◆ improving the flow of intelligence information to the FAA and improving communications within the agency;
- ◆ placing FSM's in 19 of FAA's largest and busiest domestic airports, and CASLO's at 17 locations overseas.
- ◆ implementing new security measures for cargo and mail;
- ◆ implementing new employment and training standards for screeners at U.S. and overseas airports and other security personnel;
- ◆ developing training/education standards for airport/air carrier security personnel.
- ◆ publishing guidelines to help airports build security into new airport construction;
- ◆ training all LEOs regarding requirements and procedures for flying armed by explaining "need" to fly armed, provide information about aircrew security training, and reduce problems between LEOs and air carriers;
- ◆ developing new profile criteria to improve upon the current standards which will help identify high risk passengers thereby allowing air carriers to focus resources on these individuals;
- ◆ developing and placing the AVSEC Contingency Plan in the airport and Air Carrier Security Programs. Contingency plan levels can differ from location to

location based on the threat assessment. The declaration of a threat level and corresponding measures by the FAA will take into account existing conditions and security provisions. Air carriers and airports will be required to conduct joint annual tabletop exercises of their contingency plans.

- ◆ developing a universal access system which will provide transient airline employees with a single access system for use at airports nationwide;
- ◆ completing a review of access control systems at regulated airports as a result of a previous OIG audit. This focused inspection included an inventory of access control points and enforcement methods such as challenge procedures; and
- ◆ performing Explosives Detection System (EDS) certification testing on Invision Technologies, CTX 5000. The CTX 5000 passed the test in December 1994, and thereby became the first EDS certified by FAA.

The FAA has devised security measures that provide an adequate level of everyday security, and can be upgraded rapidly in response to increased threats. Though not perfect, civil aviation security is far better now than it was before the tragic destruction of Pan Am 103.

The FAA continues to be committed to completing all of its requirements under the Act. The FAA is also committed to working closely with other Government agencies to ensure that other assigned actions are completed. Finally, the FAA will do everything possible to prevent any terrorist or other criminal act against the civil aviation system, but particularly, a terrible tragedy like Pan Am 103.

### **Some key events are:**

#### **1988**

##### **March**

FAA announced a new policy of stringent fines for persons who try to carry guns past the passenger pre-boarding security checkpoint.

## **December**

On December 29, FAA announced a series of security actions designed to prevent any recurrence of the December 21 bombing of Pan Am Flight 103. These included requirements that U.S. airlines in Western Europe and the Mideast X-ray or physically search all checked baggage, conduct additional random checks of passenger baggage, and achieve a positive match of passenger and bags to keep unaccompanied bags off airplanes.

## **1989**

### **January**

FAA published a rule in the Federal Register requiring airports to install computer controlled access systems, or similar systems, to limit unauthorized entry into secure areas.

### **February**

Secretary of Transportation led a U.S. delegation to a special International Civil Aviation Organization (ICAO) session in Montreal on aviation security. The meeting was called at the request of the United States and the United Kingdom to discuss more stringent international security standards for passengers, baggage, and cargo. These consultations resulted in a number of improvements to Annex 17 Aviation Security of the Chicago Convention.

### **March**

FAA announced proposed fines totaling \$1 million against 26 airlines for failure to detect test objects during FAA checks of airport screening points.

FAA announced a final rule requiring foreign airlines serving the United States to submit security plans to the agency for review and acceptance.

FAA participated in the establishment of the ICAO Ad Hoc Group of Specialists on the Detection of Explosives.

### **April**

Secretary of Transportation detailed a series of immediate and planned FAA actions designed to further enhance aviation security. These included improvements in the FAA security bulletin system, rulemaking to require explosives detection equipment as part of U.S.

airline security programs, and expansion of the FAA's security inspection force.

Secretary of Transportation met with transportation officials in a half dozen European countries to discuss enhancing international security.

### **June**

FAA began deploying additional security specialists on a temporary basis at overseas locations as the first step in a program to increase permanently FAA's security presence in Europe and the Middle East.

FAA announced that it had amended U.S. airline security programs to require more stringent screening of portable electronic devices--including radios, cassette players, and laptop computers--on flights operating from Europe and the Mideast to the United States.

### **July**

FAA published a proposed rule that would require U.S. airlines to install automated EDS for screening checked luggage on international flights here and abroad. Publishing of the final rule is planned for September 1989.

FAA moved to strengthen its system for issuing security information to airlines by issuing a final rule requiring mandatory compliance with prescribed countermeasures and making disclosure of information in security alerts a violation subject to penalty.

### **President's Commission Established**

### **August**

On August 4, Executive Order 12686 established the President's Commission on Aviation Security and Terrorism to "...review and evaluate policy options in connection with aviation security, with particular reference to the destruction on December 21, 1988, of Pan American World Airways Flight 103."

The first of six FAA-funded Thermal Neutron Analysis (TNA) explosives detection systems was delivered to the TWA International Terminal at New York's JFK Airport to begin operational testing. The other five were scheduled for delivery by the end of the year to such locations as Miami and London's Gatwick Airport.

## **September**

FAA published a final rule giving the agency authority to require airlines to install explosives detection equipment to screen checked baggage at all domestic and foreign airports handling U.S. international flights. Some 40 airports were targeted for initial implementation.

The Triennial International Civil Aviation Organization (ICAO) Assembly began in Montreal on September 19. These meetings continued through October 6 and the U.S. delegation was successful in achieving agreements on a number of aviation security issues and enhancements.

FAA proposed civil penalties totaling \$630,000 against Pan Am for alleged security violations at the Heathrow and Frankfurt airports. The alleged violations were discovered during an FAA inspection following the crash of Pan Am Flight 103 at Lockerbie, Scotland, on December 21, 1988.

FAA installed first operational TNA explosives detection system at JFK airport in New York, operationally screening interline transfer baggage for TWA.

## **October**

The first meeting of the FAA-chartered Aviation Security Advisory Committee (ASAC) was held in the agency's Washington headquarters. Discussions focused on improving aviation's defenses against terrorist attacks.

## **December**

Assembly and installation of the TNA explosives detection system began at the Pan Am baggage makeup area at Miami International Airport.

## **1990**

### **January**

The U.K. Secretary of State for Transportation visited the Secretary of Transportation to discuss the status of the investigations into the bombing of Pan Am Flight 103 and other security matters of mutual interest.

FAA participated in an effort by ICAO to develop a draft treaty on taggants that can be added to explosives to make them detectable by existing gas analysis techniques.

The first of two FAA aviation security specialists assigned to ICAO under a Memorandum of Cooperation for enhanced aviation security and training assistance to member states reported to Montreal on January 29. The second expert reported on March 26.

FAA completed negotiations with an independent testing laboratory for conducting tests and/or developing testing protocols for representative, practical tests of new aviation security equipment.

### **February**

FAA Administrator Busey completed a series of informal meetings with air carriers, passenger interest groups, and employee union representatives to discuss the issue of public disclosure of threats against civil aviation.

FAA held a meeting in Washington with selected air carrier security directors to discuss proposed explosives detection system requirements.

FAA held a meeting in London with directors of security for U.S. air carriers serving Europe and the Middle East to discuss explosives detection systems deployment and other security issues and initiatives.

### **March**

The first permanent FAA security liaison officer to be formally assigned to an American Embassy overseas was assigned to London.

The Air Transport Association presented the FAA with a proposal to improve the selection and training of security screening employees. The FAA welcomed the proposal and said it would require all airlines to adopt the new standards.

As a follow-up to his April 1989 trip, Secretary of Transportation went to Europe again to discuss international security issues with senior transportation officials.

The draft treaty on taggants was considered by the full ICAO Legal Committee (67 countries participated) March 27-April 12. The Committee came to an agreement on the provisions of a final Convention for ratification by a full ICAO Diplomatic Conference in early 1991.

FAA and the British Airports Authority signed an agreement to permit the installation of a

TNA device at London's Gatwick Airport for use by U.S. carriers.

#### **April**

An American Airlines aircraft was seized by a lone gunman in Port-Au-Prince, Haiti. An FAA security team, headed by the Director of Civil Aviation Security, visited Haiti to assess the ability of the government to maintain and administer appropriate security standards. Meetings with the President of Haiti resulted in changes in management and control of aviation security measures.

An assessment of aviation security conditions at Jorge Chavez International Airport (LIM), Lima, Peru, revealed several problem areas which were corrected on-the-spot by a new Peruvian management team.

FAA completed hiring to increase the staff of the Intelligence Division in the Civil Aviation Security Office to improve its effectiveness and the quality of its intelligence analyses and threat assessments.

A joint FAA/United States Postal Service European airmail security survey of military mail facilities and gateways in Frankfurt, Rome, Madrid, and London areas was initiated.

The first assignments of FAA intelligence liaison officers to the Central Intelligence Agency and the Department of State were completed.

#### **President's Commission Report**

#### **May**

The President's Commission on Aviation Security and Terrorism released its final report.

FAA issued a proposed change to the Air Carrier Standard Security Program (ACSSP) to increase the standards for metal detectors.

#### **June**

Secretary of Transportation, responding to a recommendation by the President's Commission on Aviation Security and Terrorism, created the departmental Office of Intelligence and Security.

In a parallel move, the FAA Administrator created the position of Assistant Administrator for Civil Aviation Security. Also created, was

the position of Director for Security Research and Development.

FAA amended the ACSSP to require the air carriers to report to the FAA certain threat information for review and validation to ensure appropriate utilization of resources in response to that information.

FAA issued a proposed rule that would require the replacement of X-ray machines made before July 22, 1985, with more up-to-date models. It would also require foreign airlines that land and take off in the United States to use X-ray machines that meet accepted standards to screen carry-on luggage.

FAA convened a group of government and industry explosives experts to discuss aircraft hardening techniques.

Extraordinary security procedures were implemented in an additional seven countries in Eastern Europe and Africa.

#### **July**

The UK Department of Transport and the British Airports Authority held a press conference in London to announce operation of Gatwick Airport's TNA System.

The FAA convened a public meeting of the ASAC and requested recommendations from the attendees on specific Commission recommendations, including cargo and mail security procedures, bomb threat response procedures, airport design standards, and the interrelated issues of the most effective assignments of security responsibility between air carriers and airport operators and the role of the FSM. Formal recommendations on a number of these issues were sought from ASAC by the end of September.

The third of six TNA systems became operational at Gatwick Airport.

#### **August**

FAA issued a final amendment to the ACSSP, establishing new standards for the testing and calibration of metal detectors, effective September 1.

FAA issued a proposed change to the ACSSP to incorporate selection and training standards for screening personnel based upon the model presented by the Air Transport Association.

The agency completed arrangements to send 27 FAA security specialists to Europe and the

Middle East to monitor U.S. airline compliance with FAA security requirements. Meanwhile, it worked on arrangements to send another 27 to the Far East and Latin America.

## September

FAA issued a proposed change to the ACSSP to incorporate ICAO Standard 4.3.1 (passenger/baggage matching) and require the X-ray inspection of international checked baggage at designated U.S. airports.

## October

FAA Intelligence Division was reorganized into the Office of Intelligence with four divisions and 32 authorized personnel.

FAA issued a proposed change to the ACSSP to require a passenger/baggage match for selected passengers on domestic flights and to introduce new x-ray inspection procedures for checked baggage.

FAA proposed a revision of the foreign air carrier Model Security Program including a requirement to detect test objects, standards for x-ray systems and metal detectors, selection and training standards for screening personnel, a requirement to provide checkpoint security supervisors, and a requirement to implement ICAO Standard 4.3.1 (passenger/baggage matching). Foreign air carriers were provided 45 days to comment.

FAA issued a final amendment to the ACSSP incorporating ICAO Standard 4.3.1 (passenger/baggage matching) and requiring the x-ray inspection of international baggage at designated U.S. airports effective December 8.

Installation of a TNA at Dulles Airport in Virginia was completed.

## November

FAA issued a broad agency announcement soliciting input from industry in the area of civil aviation security research and development. Emphasis was put on new technologies and new applications for existing technologies. FAA issued a proposed change to the ACSSP to introduce new training standards for persons performing enhanced or extraordinary security procedures at high risk foreign airports.

### **Enactment of P.L. 101-604**

On November 16, President signed Public Law 101-604, the Aviation Security Improvement Act (ASIA) of 1990, which strengthened the role of the Federal Government in civil aviation security through a number of actions

recommended by the President's Commission on Aviation Security and Terrorism.

## December

FAA issued a final amendment to the ACSSP requiring a passenger/baggage match for selected passengers on domestic flights and implementing new x-ray inspection procedures for checked baggage effective January 10.

FAA and FBI held a 1-day conference of both headquarters and field personnel to improve communications and coordination of information relating to domestic threats to civil aviation.

## 1991

### January

At the successful conclusion of a 1 year data collection effort, FAA removed the TNA explosives detection demonstration system from Miami International Airport for refurbishment by the manufacturer and redeployment to another site.

FAA issued a final amendment to the ACSSP that established new training standards for persons performing enhanced or extraordinary security procedures at high risk foreign airports.

Intelligence and security specialists from FAA headquarters were detailed for approximately 30 days to the Brussels regional office to assist in managing the flow of threat information which resulted from the Persian Gulf crisis.

The FAA Intelligence Watch was initiated with one senior analyst on duty at all times. Intelligence Watch manning was increased to 2-3 analysts on duty at all times for approximately 30 days in response to the Gulf crisis.

The agency, in response to the outbreak of hostilities in the Persian Gulf area, raised the level of airport and airline security to the highest point ever. The additional precautions included increasing the number of law enforcement officers at airports, allowing only ticketed passengers past the screening point, prohibiting curbside checking of luggage, and prohibiting parking of vehicles (unattended) within 100 feet of an airport terminal.

### February

FAA published a Notice of Proposed Rulemaking to require foreign air carriers to provide passengers a similar level of protection as that afforded by U.S. air carriers serving the same airport.

FAA published a Notice of Proposed Rulemaking to require air carriers to notify crewmembers of specific and credible threats against their flights.

A team of selected FAA & FBI headquarters personnel completed an airport assessment at a test site (Boston Logan Airport) to develop procedures for eventual use by FAA/FBI field personnel in conducting domestic airport vulnerability assessments.

### **March**

ICAO, as a result of strong support from the United States and other major western civil aviation countries, convened a Diplomatic Conference which, on March 1, 1991, approved a convention to require the introduction of a readily detectable volatile marking agent ("Taggant") in plastic explosives worldwide.

FAA initiated Memoranda of Agreement with INTERPOL and all Category X airports for the dissemination of threat information through Airport Law Enforcement Agencies Network (ALEAN) communications channels.

FAA authorized adjustment of some specific security measures within the U.S. to decrease inconvenience to airline passengers and costs to airports without any decrease in the overall level of security mandated at Level IV.

### **April**

FAA published a Notice of Proposed Rulemaking to establish minimum standards for hiring, continued employment, and contracting for airport and air carrier employees engaged in security-related activities.

FAA issued a revised Model Security Program for foreign air carriers including a requirement to detect FAA test objects, standards for X-ray systems and metal detectors, selection and training standards for screening personnel, a requirement to provide a Checkpoint Security Supervisor, and a requirement to implement ICAO Standard 4.3.1, passenger/baggage matching.

### **May**

Selections were made for FSM's at John F. Kennedy (JFK), Honolulu (HNL), Los Angeles (LAX), Chicago (ORD), San Francisco (SFO), Dallas Fort Worth (DFW), and Miami (MIA) International airports for the first phase of stationing FSM's at all Category X airports. Foreign airport assessment activity was expanded to include eight Soviet cities-- including two in the Soviet Far East--and FAA inspectors visited those locations in anticipation of U.S. air carrier service and increased Aeroflot service to the U.S.

FAA provided training to aviation security personnel in Barcelona, Spain, the site of the 1992 Summer Olympics.

FAA authorized implementation of modified Level II security contingency procedures at domestic locations with no change in requirements at overseas locations.

The FAA Administrator reviewed and approved the "Review of Threats to Civil Aviation" document.

### **June**

The FAA issued a final rule requiring airlines to notify aircrew members when there is a specific and credible security threat to their flight.

Selections were made for Federal Security Managers at Atlanta, Baltimore Washington International, Boston, Denver, Detroit, Houston, San Juan, Seattle, St. Louis, Washington National, and Dulles International to complete the stationing of FSM's at all Category X airports.

The Scientific Advisory Panel for Aviation Security was established.

### **July**

FAA issued a final rule to require foreign air carriers to provide passengers a similar level of protection as that afforded by U.S. air carriers serving the same airport.

FAA transmitted to Congress the implementation plan for federal security managers and foreign security liaison officers required by Section 104 of P.L. 101-604.

### **August**

The FAA issued a final rule imposing stiffer hiring, training, and performance standards for airline and airport security personnel. The rule

included educational requirements as well as allowed FAA to establish standards for the ability to read, write, and speak English; visual and aural acuity, color perception, and physical dexterity. This rule also established training requirements for the use of airport identification media, including the requirement for training of those persons authorized to be present in certain security areas of airports.

FAA amended its regulations (14 CFR 107.25, Airport Identification Media) to require controlling access to and movement within airports. Areas covered in this section include: training of persons authorized to access any area identified in the airport security program, display of airport-approved identification medium, and records of training of airport personnel.

FAA issued a final rule requiring each airport operator to designate an airport security coordinator (ASC) for each airport operator. The ASC serves as the airport operator's primary contact for security-related activities and communications with FAA, as specified in the airport operator's security program.

### **September**

The FAA issued a rule eliminating a "grandfather clause" which had permitted approximately 116 older x-ray screening systems to operate at airport checkpoints without meeting current standards for clarity of image detail.

The FAA conducted a 2-week training session for all of its FSM's.

### **October**

FSM's reported to duty at the 18 Category X airports to coordinate security measures. The FAA also had 11 security liaison officers on duty overseas.

### **November**

The FAA completed a comprehensive review of its foreign airport assessment program.

FAA reviewed all approved foreign air carrier security programs for operations in the U.S. for the "similar level of protection" criteria as mandated in the Aviation Security Act.

### **December**

FAA established standardized foreign air carrier inspection documentation based on the

performance standards in the Model Security Program.

Joint FAA/FBI airport vulnerability assessments were completed at all Category X airports. Federal security managers worked closely with airport operators and air carriers at these airports to identify and strengthen potentially vulnerable areas, even though these areas may not have been regulated by the FAA. This program was extended to 10 Category I airports.

### **1992**

#### **January**

FAA implemented an improved training program for its inspectors conducting foreign airport assessments and foreign air carrier security inspections.

#### **February**

FAA proposed a rule to require criminal history records checks on persons who have unescorted access to security-sensitive areas of an airport, as mandated by ASIA. The proposed rule would deny persons convicted of certain crimes stipulated in the Act unescorted access to security sensitive areas.

The FAA issued a policy statement on requirements for "Recurrent Security Training for air carrier Ground Security Coordinators and Crewmembers" (flight and cabin).

The Secretary of Transportation issued a DOT Order requiring public notification that Ezeiza International Airport in Buenos Aires, Argentina, did not maintain effective security measures and procedures. Also, U.S. air carriers serving Ezeiza International Airport were required to appropriately notify passengers. This finding was based on airport assessments conducted by FAA pursuant to Section 1115 of the Federal Aviation Act of 1958, as amended.

FAA issued a policy statement that airport operators should focus security resources on those critical areas of an airport involving air carrier passenger operations.

#### **June**

The FAA announced its new policy initiatives on test object enforcement and targeted testing of air carrier security screening checkpoints.

FAA expanded the membership of its Aviation Security Advisory Committee to include

representatives of the Aviation Consumer Action Project and the Victims of Pan Am 103 public interest organizations.

The Secretary of Transportation directed termination of the sanctions imposed by the DOT Order (issued March 12, 1992) which declared that Ezeiza International Airport in Buenos Aires, Argentina, did not maintain effective security measures and procedures. As a result of technical assistance and training provided by the FAA, a later airport assessment found that adequate security was maintained.

FAA authorized air carriers to use explosive vapor/particle detection and enhanced X-ray technology devices for voluntary use in screening carry-on electrical items when specifically approved in individual air carrier security programs.

The FAA and the Department of Defense executed a Memorandum of Agreement calling for the U.S. Armed Forces to apply appropriate security controls to its military mail prior to tendering it to U.S. air carriers overseas.

The Scientific Advisory Panel published their first report with an assessment of the Security R&D program and specific recommendations.

## **July**

The all-cargo air carrier Domestic Security Integration Program (DSIP) was adopted on a 2-year trial basis by three major all-cargo air carriers.

## **August**

The FAA forwarded the report to Congress on air cargo and airmail security mandated by the Act. The classified report contained recommendations for improving the security on cargo and mail transported by passenger aircraft.

FAA issued a proposed change to the ACSSP to enhance screener hiring and training standards. The proposal was open for comments for 30 days after publication.

## **September**

The FAA issued a Supplemental Notice of Proposed Rulemaking (SNPRM) using an employment history verification as the primary means of determining whether an individual should have unescorted access. The SNPRM also proposed requiring criminal history

records check for individuals who trigger criteria established in the proposal. The final rule will be published in the Federal Register in 1994.

A separate R,E&D Aviation Security Human Factors program was initiated in FY93. The Screener Proficiency Evaluation and Reporting System (SPEARS) is part of this program.

## October

The Secretary of Transportation made a determination that security conditions at Murtala Mohammed Airport, Lagos, Nigeria were not effective and did not meet minimum International Civil Aviation Organization standards. As a result, immediate public notification of this finding was made to the traveling public. This finding also resulted in the FAA amending on an emergency basis the security programs of U.S. and foreign air carriers that serve the United States from Lagos. This amendment procedure was issued October 1992. In July 1993, a second assessment was conducted in Lagos. The team reported no corrective actions and several new security deficiencies. On August 11, 1993, the Secretary suspended air service to Lagos citing the failure of cognizant authorities to satisfactorily correct deficiencies. The suspension remains in effect today.

With strong support from the FAA and the Department of State, the International Civil Aviation Organization's Council adopted Amendment Number 8 to Annex 17. This amendment strengthened international security standards and recommended practices in several key areas.

## November

The FAA issued a proposal to amend air carrier security programs to: (1) assimilate experience gained during Operations Desert Shield/Storm from the implementation of special security procedures at designated international airports, and (2) incorporate the cargo and mail security recommendations of the report to Congress.

The FAA released for public comment the unclassified portions of the proposed criteria for EDS which establish the performance requirements for certification of EDS and performance testing of explosives detection devices. Comments received were evaluated and a Federal Register Notice which established the final criteria was published on September 10, 1993.

Draft guidelines for taking security into account during airport design and construction were completed and were under review by the Aviation Security Advisory Committee (ASAC). Security R&D laboratory (where EDS certification testing will take place) opened at the Technical Center in Atlantic City, New Jersey.

## December

A detailed security R&D program requirements document was published, defining program direction, milestones, and priorities.

## 1993

### January

The FSM effectiveness evaluation report was completed. The final report stated that the initial mission and purpose of the FSM program has been successful in that it conveyed an early and immediate line of communication with industry and other FAA counterparts.

A report was completed on the evaluation of Europe, Africa, and Middle East regional security office communication process in support of timely communication and response to information. The final report noted improved onsite problem resolution and presented recommendations for improved quality assurance between the region and headquarters.

### February

The ASAC was briefed on the FSM effectiveness evaluation report.

### March

Three prototypes of hardened luggage containers were fabricated and blast-tested with favorable results, as part of the effort to develop a certification standard in 1995.

With the posting of a liaison officer in Sydney, Australia, 17 CASLO's have been assigned to locations throughout the world to improve communications and serve as a source of onsite expertise.

FAA/FBI vulnerability assessments at 29 major domestic airports were completed, results analyzed, and a report to Congress submitted as required by ASIA.

Beginning in March, explosives trace detectors to screen electrical items in carry-on bags were deployed first at La Guardia, then later at Atlanta and Dulles airports for operational testing and evaluation. The results will assist in the preparation of performance standards for the devices.

FAA appointed regional aviation explosives security coordinators in each of the 9 domestic FAA regions.

## April

A comprehensive FAA physical security management program for the protection, control and safeguarding of FAA facilities and assets was established.

## May

The Federal Air Marshal training program was upgraded.

FAA aviation explosives security airport surveys were pilot tested at two major airports.

## June

The FAA Technical Center completed a draft management plan for certification testing of EDS equipment. Notice of the availability of this document for comment was published in the [Federal Register](#).

Two FAA-owned Thermal Neutron Analysis explosives detection systems for screening the checked baggage of flights of over 20 U.S. and foreign air carriers flying from San Francisco International Airport began operating to improve security while collecting data for evaluation.

FAA directed that aviation explosive security airport surveys be conducted at all Category X and Category I airports in the United States within the next year.

## July

A change to the Air Carrier Standard Security Program (ACSSP) was issued. It required new, more stringent measures for the carriage of cargo and mail aboard passenger aircraft from both U.S. and foreign locations, while at the same time strengthening security rules for international passenger operations from higher risk airports overseas.

Rewrites of Federal Aviation Regulations Part 107 (Airport Security) and Part 108 (Aircraft Security) begun.

An FSM position in Orlando, Florida, was established, bringing the total number of FSM's nationwide to 19.

## August

Revised contingency plans for airport and air carrier security, developed for use during periods of increased threat, were presented to the regulated parties for comment.

## September

A technical report entitled "Recommended Security Guidelines for New Airport Construction and Major Renovations" was published and distributed to those with an operational "need-to-know" to ensure that security concerns are taken into account during the design stage of airport construction projects. The guidelines discuss restricted access areas, passenger flow control, the efficiency of security screening stations, and the protection of critical or vulnerable areas of the airport.

The final explosives detection system performance standard was published in the [Federal Register](#).

The first national invitational, preboard passenger screener conference concentrating on human factors issues at the screening check point was sponsored by the FAA.

New, modular, screening checkpoint test objects were distributed to FAA field offices/personnel for evaluation.

## October

The notice of availability of the final management plan for EDS certification testing was published in the [Federal Register](#).

A revised change to the ACSSP was issued to implement minimum standards for hiring, continued employment, and contracting for air carrier and airport employees engaged in security-related activities.

The Assistant Administrator for Civil Aviation Security hosted the Sixth International Civil Aviation Security Conference attended by nearly 400 civil aviation security professionals from over 40 countries. Explosives detection systems and other advanced technology, threats to civil aviation, screening procedures, airport security, the cost of security, and international standards and cooperation were the primary themes.

FAA Administrator reviewed and approved an updated "Review of Threats to Civil Aviation."

## November

The PSI effectiveness evaluation was completed. The final report stated the establishment of major carrier PSI positions at headquarters has resulted in greater responsiveness to industry and more

consistent communication of policy. It also identified management actions for continuing improvements and collaboration with both internal and external organizations.

## **December**

A comprehensive review by interested parties of the proposed revision of the Federal Aviation Regulations governing airport and air carrier security began with an issue paper sent to the ASAC for comment.

## **1994**

### **January**

Rewrite of FAR Part 107 (Airport Security) and Part 108 (Air carrier Security) continued. Issuance of the final rules are planned for spring 1996.

A 9-month in-depth evaluation was initiated of access control systems at major airports in the United States. The evaluation and subsequent validation of findings were the first of a new approach to inspection activities undertaken in 1994 and will be used to focus resources and activities.

### **February**

The FAA Technical Center chaired a 1-day seminar for subject matter experts from government and industry to discuss elements to be incorporated in a domestic passive passenger profile system.

### **March**

The FAA Technical Center performed a field evaluation of a domestic passive passenger profile system with Northwest Airlines.

The AVSEC Contingency Plan was developed and placed in the Airport and Air Carrier Security Programs. The plan requires air carriers and airports to conduct joint annual tabletop exercises. The exercises simulate implementation of countermeasures identified by the FAA, identify local operating procedures, and clarify responsibilities.

### **May**

The FAA Technical Center successfully completed a laboratory demonstration of Nuclear Quadrupole Resonance explosives detection device.

### **June**

The FAA Technical Center began a field trial and data collection effort of InVision CTX 5000 at LAX.

### **July**

The AVSEC Contingency Plan was implemented for U.S. air carrier passenger flights to Israel.

### **August**

The first application for certification testing from InVision Technologies was received.

The FAA Technical Center successfully performed a blast test on the 5th Hardened Container prototype.

A field evaluation was performed on enhanced versus black and white X-ray for both carry-on and checked baggage at SFO.

### **September**

A Law Enforcement Officers Flying Armed training package was developed, printed, and distributed to Federal, state, and local law enforcement. The training explains criteria for "need" to fly armed, provides information about aircrew security training, and promotes an understanding of differences among air carriers' corporate policy and provides guidelines for the transportation of regarding prisoners.

FAA delegations met with various foreign air carrier representatives and government officials to amend the foreign air carrier security programs and arrive at a level of protection for passengers similar to that provided on U.S. carriers serving the same airports. To date, 14 of 16 category one scheduled air carriers' programs have been reviewed.

### **October**

The FAA Technical Center performed EDS certification testing on InVision CTX 5000. Explosive vulnerability testing was performed on pressurized KC-135 airframes.

FAA hosted a 2-day seminar for analysts from the U.S. Intelligence Community to discuss advanced technical means of attacking aircraft and to outline possible countermeasures.

## **October**

A team was established to rewrite the Air Carrier Standard Security Program which implements FAR Part 108, procedures and facilities related to Aircarrier Security. The completed rewrite is scheduled for publication in fall 1996.

## **November**

FAA collaborated with Air Transport Association in publishing new material on improvised explosive device recognition for incorporation in training materials to assist instructors who conduct both initial and recurrent GSC training. Several of the elements covered in this training may be used by screening company vendors to meet recurrent screener training requirements.

Drafting has begun on a scope paper proposing comprehensive changes to the Model Security Program (MSP) governing Foreign Air Carrier passenger operations from/within, and to the United States. The FAA anticipates issuing the revised MSP for comment in the fall of 1996.

The first Government/Industry Trace Portal Workshop was held in Atlantic City at the FAA Technical Center.

At the conclusion of the Enhanced Airport Security System Project, the FAA and industry cosponsored the Airport Security Technology Workshop in order to transfer technical information from government to industry.

## **December**

The FAA certified the first EDS - InVision CTX 5000.

The FAA has developed new profile criteria to improve the current standards. The new criteria able us to better identify high risk passengers thereby allowing air carriers to focus resources on these individuals. The training program for profilers has been updated and new requirements for testing proposed. Final implementation is scheduled for winter of 1995.

Philippine Airlines Flight 434 on December 11 landed safely when a device exploded and killed a passenger.