



Institute of Air & Space Law

Aviation Security: The Role of International Law

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Terrorism

- Terrorism is ideologically or politically motivated violence directed against civilian targets.
- Terrorism is unconventional warfare, and psychological warfare, designed to instill fear.
- Terrorism is a symptom of a more pernicious disease found among the militarily weak, the politically frustrated, and the religiously fanatic.

The Vulnerability of Air Transportation

“The nation’s vast air, land, and maritime transportation systems are marvels of innovation and productivity, but they are designated to be accessible, and their very function is to concentrate passenger and freight flows in ways that can create many vulnerabilities for terrorists to exploit. . . .

“Designed and organized for the efficient, convenient, and expeditious movement of large volumes of people and goods, transportation systems must have a high degree of user access.” 

Acts of Unlawful Interference

Hijackings account for the largest percentage of all attacks against civil aviation. Other criminal acts include:

- airport attacks;
- bombings, attempted bombings;
- shootings on board civil aviation aircraft;
- general and charter aviation aircraft incidents;
- off-airport facility attacks; and
- shootings at in-flight aircraft.



Early Acts of Unlawful Interference



- The first recorded hijacking occurred in 1931 when Peruvian revolutionaries commandeered a Ford Tri-motor.
- In 1937, terrorists may have planted a bomb on the Hindenburg Zeppelin, exploding it at Lakehurst, New Jersey.
- The first hijacking of a commercial aircraft was in 1948, resulting in the crash of a Cathay Pacific aircraft in the ocean near Macao.

Hijackings

- During the first dozen years of modern commercial air travel (1948-1960), there were twenty-nine successful hijackings.
- In the following six years (1961-1967), there were a total of sixteen hijackings.
- Then, in 1968 alone, there were thirty successful hijackings of aircraft—seventeen having United States registration.
- The following year, the number of hijackings was more than double the number of the preceding two decades combined.
- After the late 1960s, as the Cuban hijackings de-creased in frequency, the total number of aircraft hijackings began to decline.

EXAMPLES OF AERIAL TERRORISM

- In the 1970s, airports in Tel Aviv and Athens were attacked; in the 1980s, airports in Rome, Munich and Vienna were attacked.
- The 1985 bombing of Air India flight 182 over the Irish Sea by Sikh separatists, killing all 329 aboard.
- North Korea is widely believed responsible for a 1987 explosion of a Korean Airlines flight 858 over the Andaman Sea near Burma that killed all 115 passengers and crew aboard.
- The 1988 bombing of Pan Am flight 103 over Lockerbie, Scotland, by operatives of the Libyan government, killing all 259 aboard.
- In 2002, missiles were fired at an Israeli charter aircraft over Nigeria.

Motives

The earliest incidents usually involved political refugees seeking a safe haven.

People rebelling against their political environment hijacked aircraft en route from Cuba to the United States, while others hijacked aircraft from the United States seeking to join relatives or political comrades in Cuba.

People in eastern Europe hijacked aircraft to flee the communist regimes.

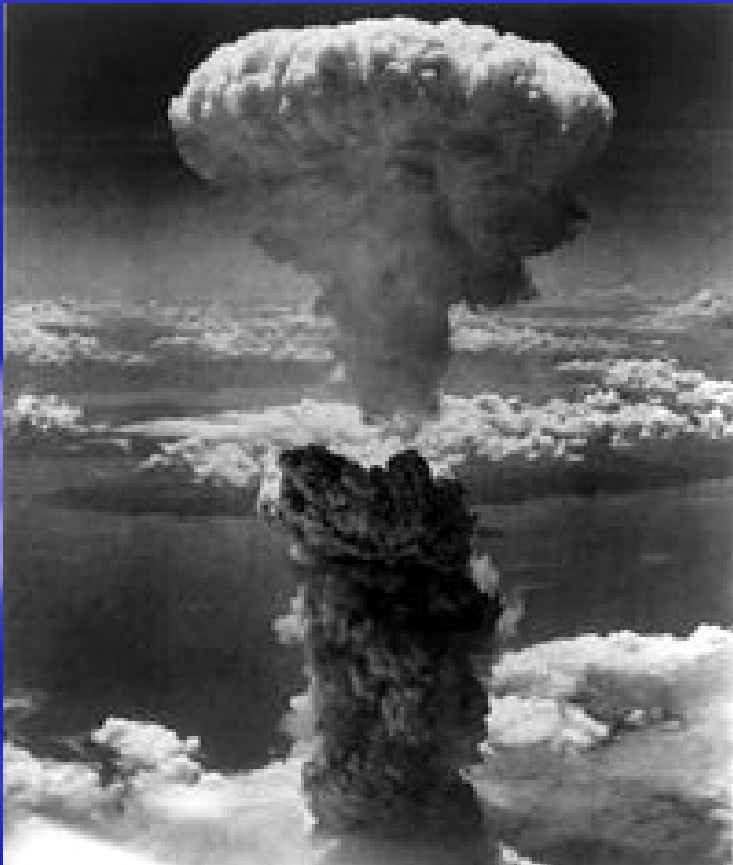
During the early 1970s, a series of hijackings occurred in which the dominant motive was to obtain money by holding passengers hostage for ransom.

The hijackings of the late 1970s and the first half of the 1980s were made in an attempt to promote political objectives relating to existing international and territorial conflicts. During these decades, politically motivated hijackings accounted for more than two-thirds of all hijackings worldwide.

Political frustration and/or religious fanaticism can inspire terrorism.



*But, war is the
terrorism of the rich ...
and terrorism is the
war of the poor.*



Aviation Security Conventions



- Chicago Convention of 1944 – 190 States
- Tokyo Convention of 1963 – 182 States
- The Hague Convention 1970 for the unlawful seizure of aircraft – 182 States
- The Montreal Convention 1971 for the suppression of unlawful acts against the safety of aviation – 185 States
- The Montreal Protocol for the suppression of acts of violence at airports – 161 States
- The MEX Convention 1991 on the marking of explosives – 132 States

OTHER INTERNATIONAL AGREEMENTS

- **US-Cuba Memorandum of Understanding (1973)**
- **The European Convention of 1977** provides that hijacking is not deemed to be a political offense exception that avoids extradition.
- **The Bonn Declaration of 1978**, an agreement of G-7 leaders, provides that all flights would be ceased immediately to or from any nation that refused either to return the hijacked aircraft or to prosecute or extradite a hijacker.

The Chicago Convention of 1944

- Article 4 of the Chicago Convention of 1944 prohibits the “use of Civil Aviation for any purpose inconsistent with the aims” of the Convention.
- Among those aims and objectives of the Convention are to “insure the safe and orderly growth of international civil aviation throughout the world” and to “meet the needs of the peoples of the world for safe . . . air transport.”
- The preamble to the Convention provides that “the future development of international civil aviation can greatly help to create and preserve friendship and understanding among nations and peoples of the world, yet its abuse can become a threat to general security.”



The Tokyo Convention of 1963

The delegates who met in Tokyo in 1963 were concerned with drafting legal rules governing offenses occurring on board the aircraft. The issue of unlawful seizure of aircraft was added as an afterthought in Article 11.

Under the Convention, the contracting State in which a hijacked aircraft lands is obligated to "take all appropriate measures to restore control of the aircraft to its lawful commander" and to "permit its passengers and crew to continue their journey as soon as practicable. . . ."

The Convention has been criticized for its failure to create a definitive obligation on behalf of its signatories to prosecute or extradite the individual committing acts of unlawful interference.

The Hague Convention of 1970



- Provides that one who, during flight, “unlawfully, by force or threat thereof, or by any other form of intimidation, seizes, or exercises control of, that aircraft, or attempts to perform such act” or is an accomplice of such person, commits an “offense,” for which extradition or prosecution and the imposition of “severe penalties” is required.
- Contracting States must render their decision in the same manner as it would in an offense of a serious nature under their domestic law.

The Montreal Convention of 1971



The Montreal Convention addresses the issues of damage to air navigation facilities and aircraft sabotage, and extends its scope to certain activities preceding embarkation and departure, and subsequent to landing and disembarkation. It declares the following to be “offense[s]:”

- (a) acts of violence likely to endanger the safety of an aircraft,
- (b) destruction of or serious damage to an aircraft or air navigation facilities, and
- (c) communication of false information that endangers the safety of an aircraft.

The Montreal Protocol of 1988



Extended the principal provisions of the Montreal Convention to airports, prohibiting acts of violence at airports and the destruction or damage of airport facilities.

PROHIBITED ACTS

The four international conventional Air Law instruments collectively prohibit the following:

- offences against penal law;
- performing an act which jeopardizes the safety of the aircraft or of persons or property therein, or good order and discipline on board (**Tokyo Art. 1(1)**);
- unlawfully, by force or threat or intimidation, seizing or controlling an aircraft, or attempting to; or
- being an accomplice of a person who performs or attempts to perform any such act; (**Hague Art. 1**);
- performing an act of violence against a person on board an aircraft in flight likely to endanger the safety of that aircraft; or
- destroying or damaging an aircraft so as to render it incapable of flight or endangering its safety in flight; or
- placing or causing to be placed a device or substance likely to destroy an aircraft in service, or to cause damage to it which renders it incapable of flight, or is likely to endanger its safety in flight; or
- destroying, damaging or interfering with air navigation in a way likely to endanger the safety of aircraft in flight; or
- communicating knowingly false information endangering the safety of an aircraft in flight;
- attempting to commit the above offences or acting as an accomplice to one who commits or attempts to commit any such offence (**Montreal 1971 Art. 1**);
- performing an act of violence against a person at an international airport likely to cause serious injury or death; or
- destroying, seriously damaging or disrupting international airport facilities or out-of-service aircraft located thereon, if such an act is likely to endanger safety at that airport (**Montreal Protocol Art. 2**).



New Offenses?

Among the additional offenses ICAO is considering adding in a new international instrument are:

- using civil aircraft as a weapon;
- using civil aircraft to spread biological or nuclear weapons or substances;
- using biological or chemical weapons or substances to cause damage; and
- threats to cause such offenses.



RIGHTS OF STATES



- The State of Registration may exercise jurisdiction over offenses committed on board an aircraft (Tokyo, Art. 3(1)).
- A State that is not the State of Registration may exercise its jurisdiction over an offense committed on board if the offense:
 - affects its territory,
 - was committed against its national or permanent resident,
 - infringes its security, or
 - breaches flight or maneuver rules and regulations there in force. (Tokyo, Art. 4).
- If it refuses to accept a disembarked passenger that it not its national or permanent resident, a State may return such passenger to his State of nationality or permanent residence, or the territory in which he began his journey (Tokyo, Art. 14(1)).

DUTIES OF STATES



Contracting States must:

- restore control of an aircraft unlawfully seized or interfered with to the aircraft commander, or preserve his control thereof (Tokyo, Art. 11(1) ; Hague Art. 9(1));
- permit the passengers and crew to continue on to their destination as soon as practicable, and return the aircraft and its cargo to those entitled to lawful possession thereof (Tokyo, Art. 11(2), (Hague Art. 9(2)), (Montreal Art. 10(2)).
- avoid unnecessary delay of the aircraft, crew or passengers (Tokyo, Art. 17).

DUTIES OF STATES

States must allow a passenger to disembark if delivered to it by the commander of the aircraft on grounds he has committed, or is about to commit, an offense against penal law, or “may or do jeopardize the safety of the aircraft or of persons or property therein or which jeopardize good order and discipline on board.” (Tokyo, Art. 12).

Once it takes delivery, if the State must:

- take him into custody for such time as necessary to launch criminal or extradition proceedings (Tokyo, Art. 13(2));
- allow him to communicate with the State of which he is a national (Tokyo, Art. 13(3));
- immediately make a preliminary enquiry into the facts (Tokyo, Art. 13(4));
- notify the State of registration, the State of which the person is a national, and any other interested State that the person has been taken into custody and the circumstances that warrant his detention, and whether it intends to exercise jurisdiction (Tokyo, Art. 13(5), Montreal 1971 Art. 5(2));and
- accord to a person in its custody treatment no less favorable than that accorded its own nationals (Tokyo, Art. 15(2)).



DUTIES OF STATES

Contracting States must make the unlawful seizure or attempted seizure of an aircraft punishable by severe penalties (Hague Art. 2). Further, it must make the following offenses punishable by severe penalties (Montreal 1971 Art. 3):

- (a) performs an act of violence against a person on board an aircraft in flight if that act is likely to endanger the safety of that aircraft; or
- (b) destroys an aircraft in service or causes damage to such an aircraft which renders it incapable of flight or which is likely to endanger its safety in flight; or
- (c) places or causes to be placed on an aircraft in service, by any means whatsoever, a device or substance which is likely to destroy that aircraft, or to cause damage to it which renders it incapable of flight, or to cause damage to it which is likely to endanger its safety in flight; or
- (d) destroys or damages air navigation facilities or interferes with their operation, if any such act is likely to endanger the safety of aircraft in flight; or
- (e) communicates information which he knows to be false, thereby endangering the safety of an aircraft in flight. (Montreal 1971 Art. 1).



DUTIES OF STATES

- If the offense took place aboard its registered aircraft, or in its territory, or aboard an aircraft dry leased to a person who has its principal place of business or its permanent resident within the State, that State must exercise its jurisdiction over the offense of unlawfully seizing an aircraft or any other act of violence against the crew or passengers (Hague Art. 4) (Montreal 1971 Art. 5(1)).
- If the alleged wrongdoer is in its territory, that State may take him into custody for purposes of promptly making an enquiry into the facts to determine whether criminal proceedings or extradition should be instituted (Hague Art. 6) , (Montreal Art. 6(1)).
- If the alleged wrongdoer is found in the State, it must either extradite him, or submit the case to competent authorities for prosecution in the same manner as any ordinary offense of a serious nature would be handled (Hague Art. 7) (Montreal 1971 Art. 7).
- Other States must assist the prosecuting State in its criminal proceedings (Hague Art. 10(1), Montreal 1971 Art. 11).





Annex 17 to the Chicago Convention (1974)

- Reaffirms many of the requirements of the Tokyo, Hague and Montreal Conventions.
- Requires that each member State “have as its primary objective the safety of passengers, crew, ground personnel and the general public in all matters related to safeguarding against acts of unlawful interference with civil aviation.”
- Requires States to establish a national civil aviation security program and to create a governmental institution, dedicated to aviation security, that would develop and implement regulations to safeguard aviation.
- Requires States to develop a security training program, share aviation threat information, and otherwise cooperate with other States on their national security programs.

Recent Amendments to Annex 17

- Amendment 10 to Annex 17, adopted less than three months after the tragic events of September 11th, extends its reach to *domestic* air transportation. Specifically, the relevant provision provides: “Each Contracting State shall ensure that principles governing measures designed to safeguard against acts of unlawful interference with international civil aviation are applied to domestic operations to the extent practicable.”
- Coupled with ICAO’s new security audit procedures, states that fail to comply with their international legal obligations in this arena are likely to have industrialized nations prohibit commercial aviation services to or from their territories.



“The heads of State and government, concerned about terrorism and the taking of hostages, declare that their governments will intensify their joint efforts to combat international terrorism.

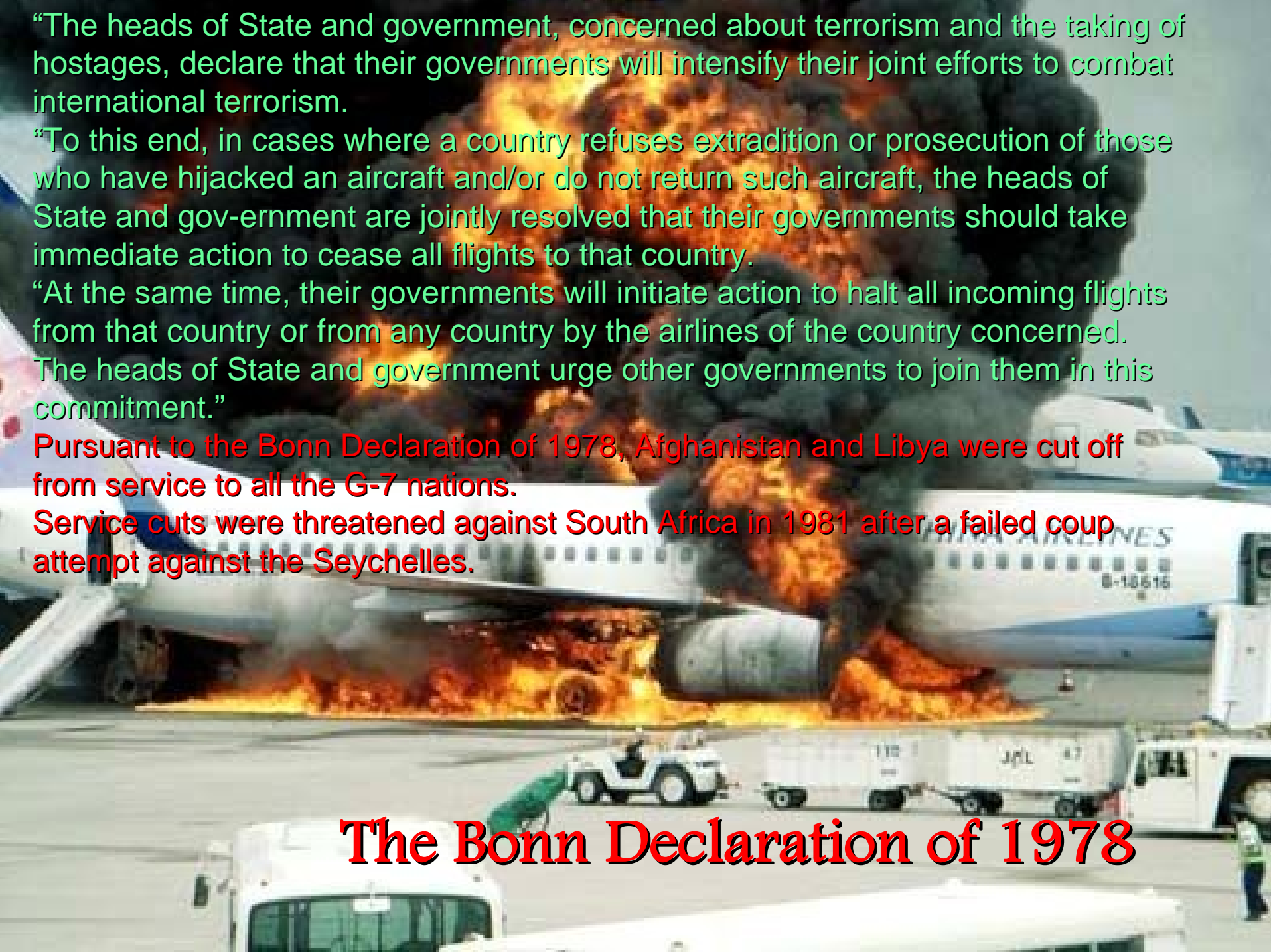
“To this end, in cases where a country refuses extradition or prosecution of those who have hijacked an aircraft and/or do not return such aircraft, the heads of State and government are jointly resolved that their governments should take immediate action to cease all flights to that country.

“At the same time, their governments will initiate action to halt all incoming flights from that country or from any country by the airlines of the country concerned. The heads of State and government urge other governments to join them in this commitment.”

Pursuant to the Bonn Declaration of 1978, Afghanistan and Libya were cut off from service to all the G-7 nations.

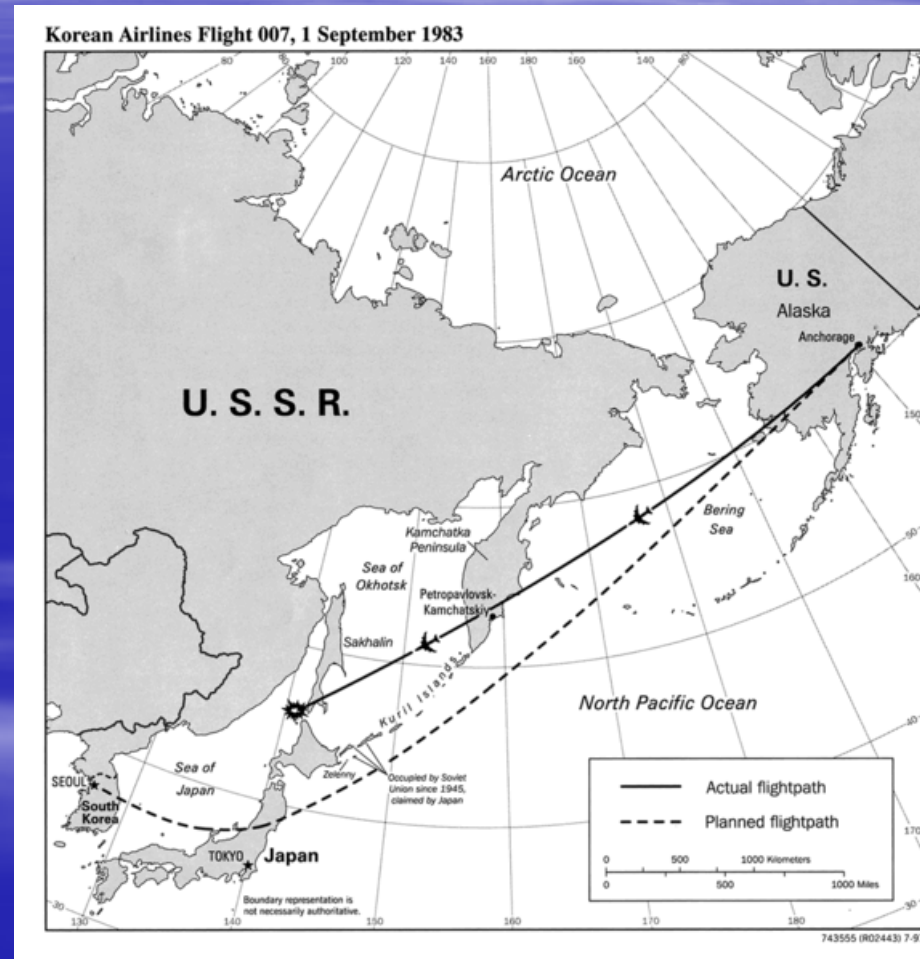
Service cuts were threatened against South Africa in 1981 after a failed coup attempt against the Seychelles.

The Bonn Declaration of 1978



Article 3 bis (1984)

- After Korean Airlines flight 007 was shot down by Soviet military aircraft over the Soviet Union in 1983, ICAO Council adopted a resolution providing that the use of armed forces against commercial aviation was incompatible with customary international law and the Chicago Convention.
- In 1984 ICAO adopted Article 3 *bis*, which prohibits the use of weapons against aircraft in flight. It entered into force in 1988.
- As of March 2007, 136 States had ratified Article 3 *bis*.



The Montreal Convention of 1991



- *In response to Security Council Resolution 635, ICAO drafted the Convention on the Marking of Plastic Explosives for the Purpose of Detection of 1991.*
- *It calls upon member States to take “necessary and effective measures” to prevent the manufacture, and exert control over the possession and movement of, unmarked explosives, as well as destroy existing stockpiles.*
- *This is not, technically, an aviation convention.*



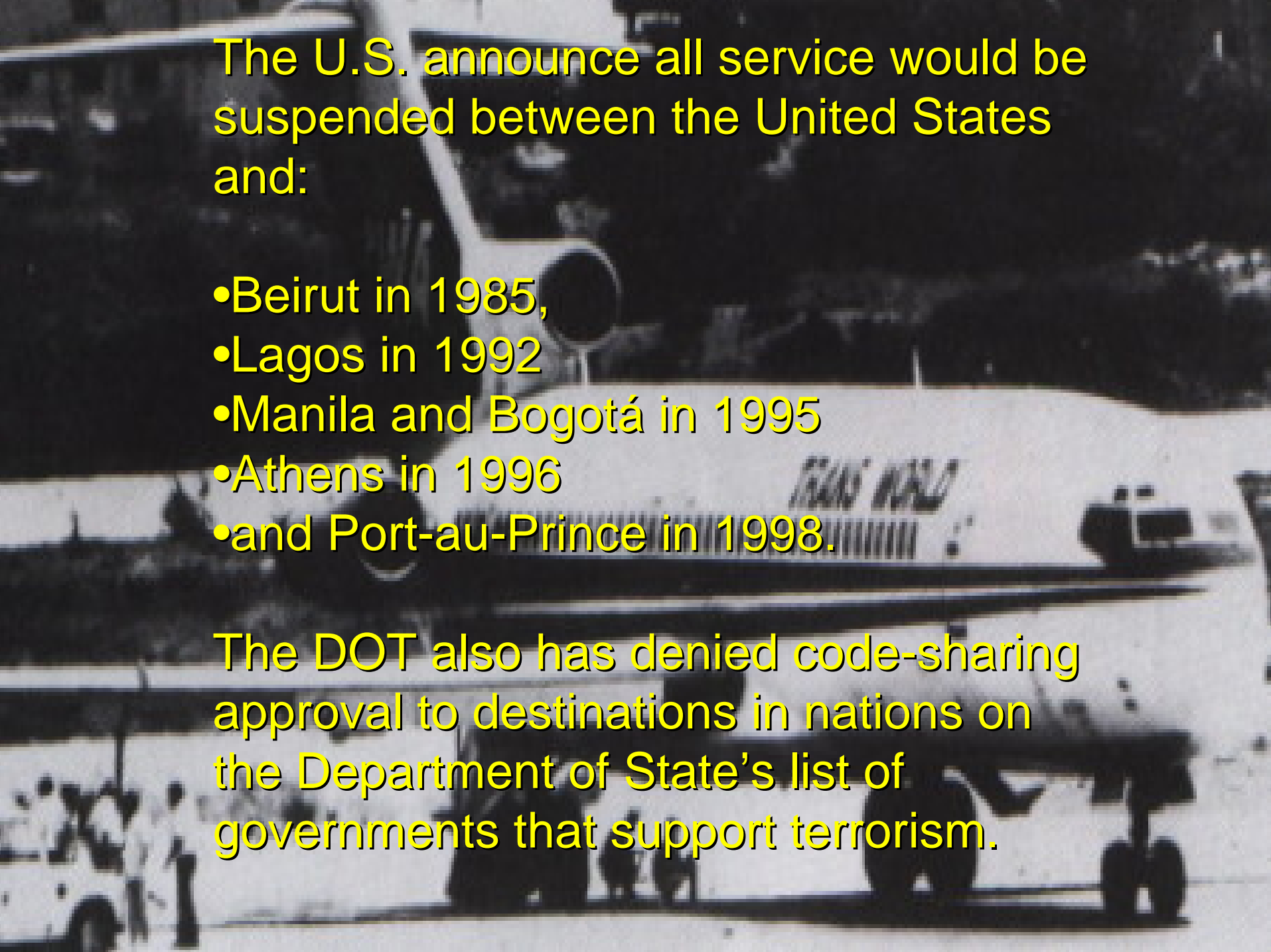
**Several UN Security Council
and General Assembly
Resolutions Condemn Aerial
Terrorism**



U.S. Security Audits

- In 1985, Congress required the FAA to assess the security procedures of foreign airports and foreign air carriers that serve the United States.
- It required the FAA to conduct a security audit of foreign airports, and if it found that an airport failed to comply with Annex 17, it notified the appropriate authorities of its decision and recommended steps to achieve compliance.
- If the airport failed to correct the deficiency, the FAA published a notice that the airport has failed its security audit in the *Federal Register*, posted its identity prominently at major U.S. airports, and notified the news media.
- The FAA could also “withhold, revoke, or prescribe conditions on the operating authority” of an airline that flies to that airport, and the President may prohibit an airline from flying to or from said airport from or to a point in the United States.





The U.S. announce all service would be suspended between the United States and:

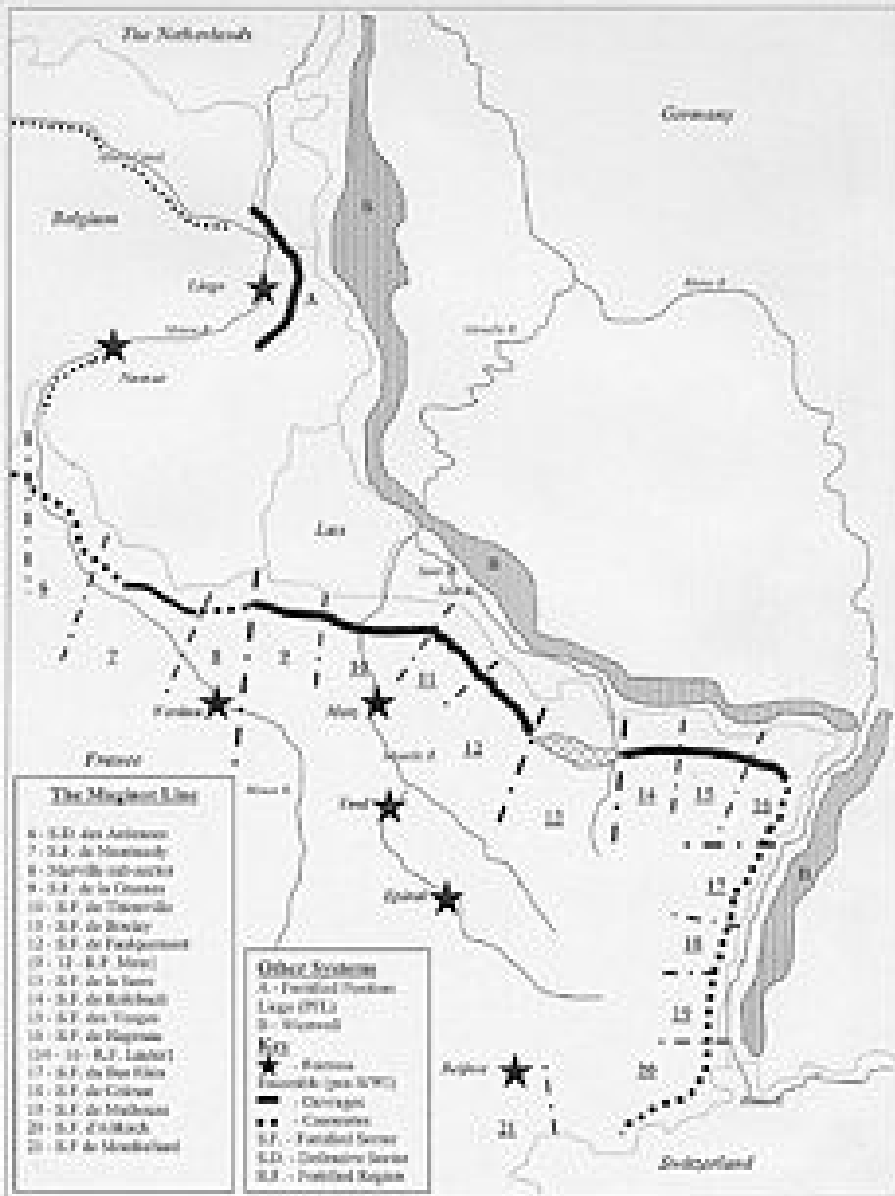
- Beirut in 1985,
- Lagos in 1992
- Manila and Bogotá in 1995
- Athens in 1996
- and Port-au-Prince in 1998.

The DOT also has denied code-sharing approval to destinations in nations on the Department of State's list of governments that support terrorism.

THE ICAO SECURITY AUDITS

Following September 11, 2001, the 33rd ICAO General Assembly passed several resolutions strongly condemning the use of aircraft as weapons of mass destruction. One such resolution called upon ICAO to establish a security audit program modeled on USOAP, launched in 1999. As a result, ICAO inaugurated the Universal Security Audit Programme [USAP] to assess state compliance with Annex 17 (security).

- States tend to be reactive rather than proactive.
- They also tend to “fight the last war.”



U.S. Domestic Law

The Antihijacking Act of 1974 implements the Hague Convention of 1970. It imposes penalties for carrying weapons or explosives aboard aircraft and a penalty of twenty years of imprisonment or death if a passenger is killed during a hijacking. It also authorizes the President to suspend the landing rights of any nation that harbors hijackers.

The Air Transportation Security Act of 1974 authorized the screening of passengers and baggage for weapons.

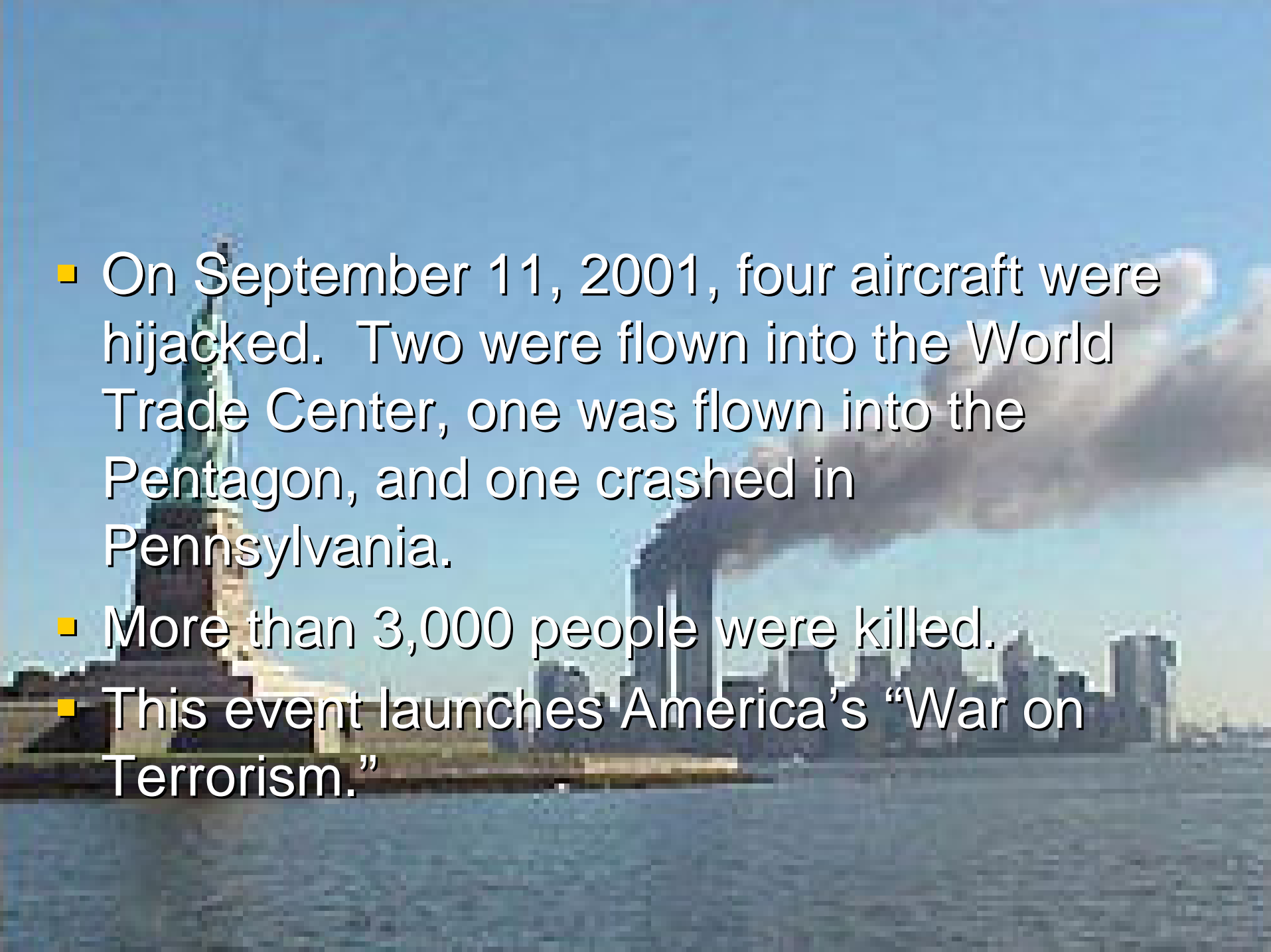
The Aircraft Sabotage Act of 1984 implements the Montreal Convention of 1971. It imposes penalties of up to \$100,000 or twenty years of imprisonment, or both, for hijacking, damaging, destroying, or disabling an aircraft or air navigation facility.

The International Security and Development Act of 1985 authorizes expenditures for enhancing security at foreign airports.

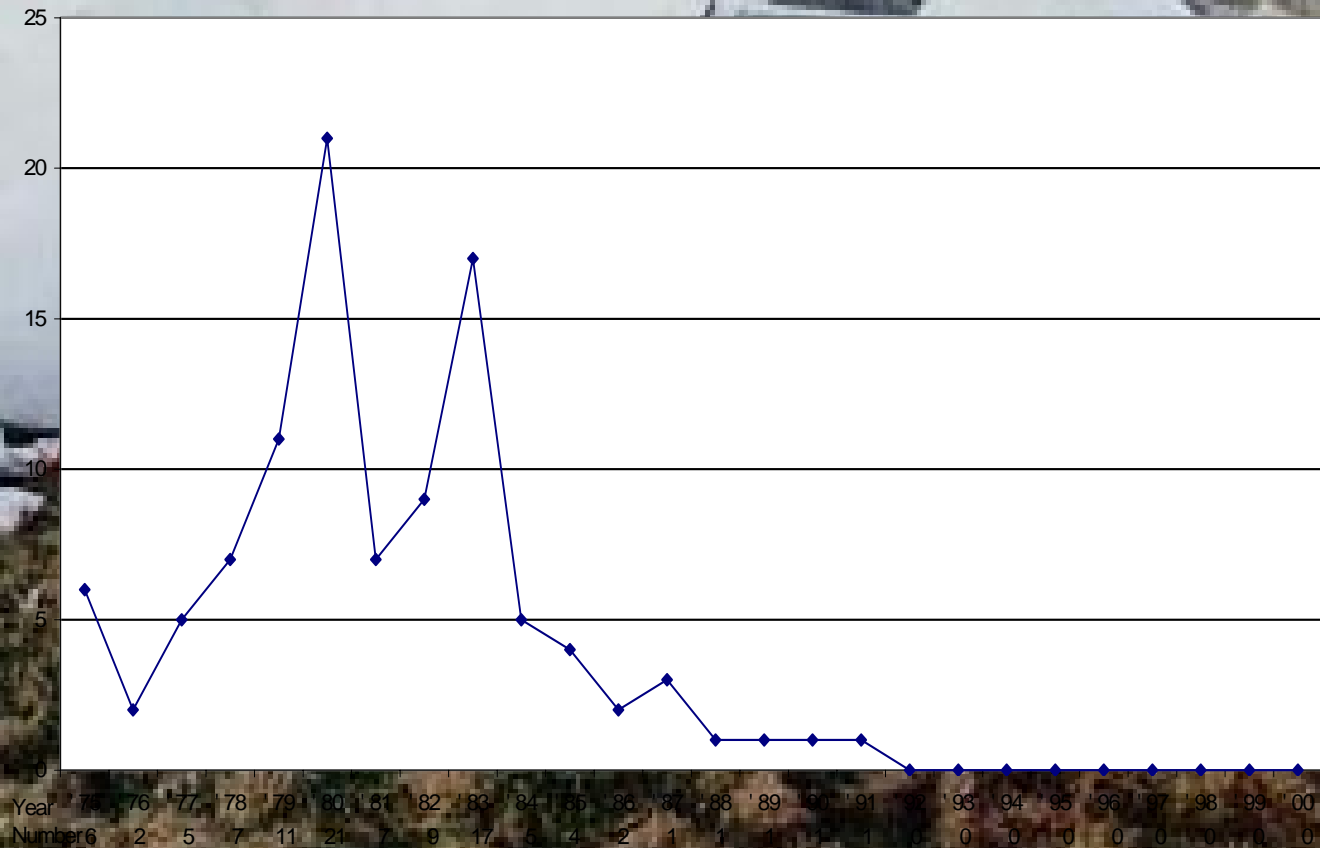
The Foreign Airport Security Act of 1985 requires the Secretary of the U.S. Department of Transportation (DOT) to assess security at foreign airports and to notify the public or suspend service if a foreign airport fails to correct a security breach. It also requires foreign airlines serving the United States to adopt and implement security procedures prescribed by the U.S. government.

Recent U.S. Domestic Law

- *The Aviation Security Improvement Act of 1990* mandates background checks for airline and airport employees, and imposes additional training, educational, and employment standards upon them. It also requires deployment of bomb-detection technology for baggage.
- *The Federal Aviation Administration Reauthorization Act of 1996* requires passenger profiling, explosive detection technology, procedures for passenger/bag matching, and certification for screening companies.
- *The Omnibus Consolidated Appropriations Act of 1997* authorizes the purchase of advanced screening equipment for baggage.
- *The Aviation Security Improvement Act of 2000* requires fingerprinting and background checks of airport and airline security personnel at Category X airports.
- *The Aviation and Transportation Security Act of 2001* federalizes the airport screening function, establishing the new Transportation Security Administration (TSA) under the DOT to regulate security in all modes of transportation. It also enhances baggage screening procedures and imposes more stringent personnel qualifications on security employees.
- *The Homeland Security Act of 2002* consolidates twenty-two agencies, including the TSA, into a new cabinet-level Department of Homeland Security. The agency is given jurisdiction, *inter alia*, over transportation security, customs, immigration, and agricultural inspections.

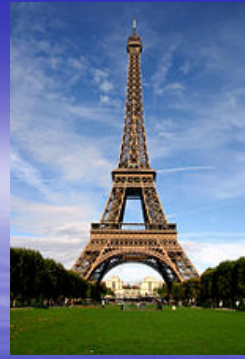
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- On September 11, 2001, four aircraft were hijacked. Two were flown into the World Trade Center, one was flown into the Pentagon, and one crashed in Pennsylvania.
 - More than 3,000 people were killed.
 - This event launches America's "War on Terrorism."

The United States Was Asleep at the Wheel





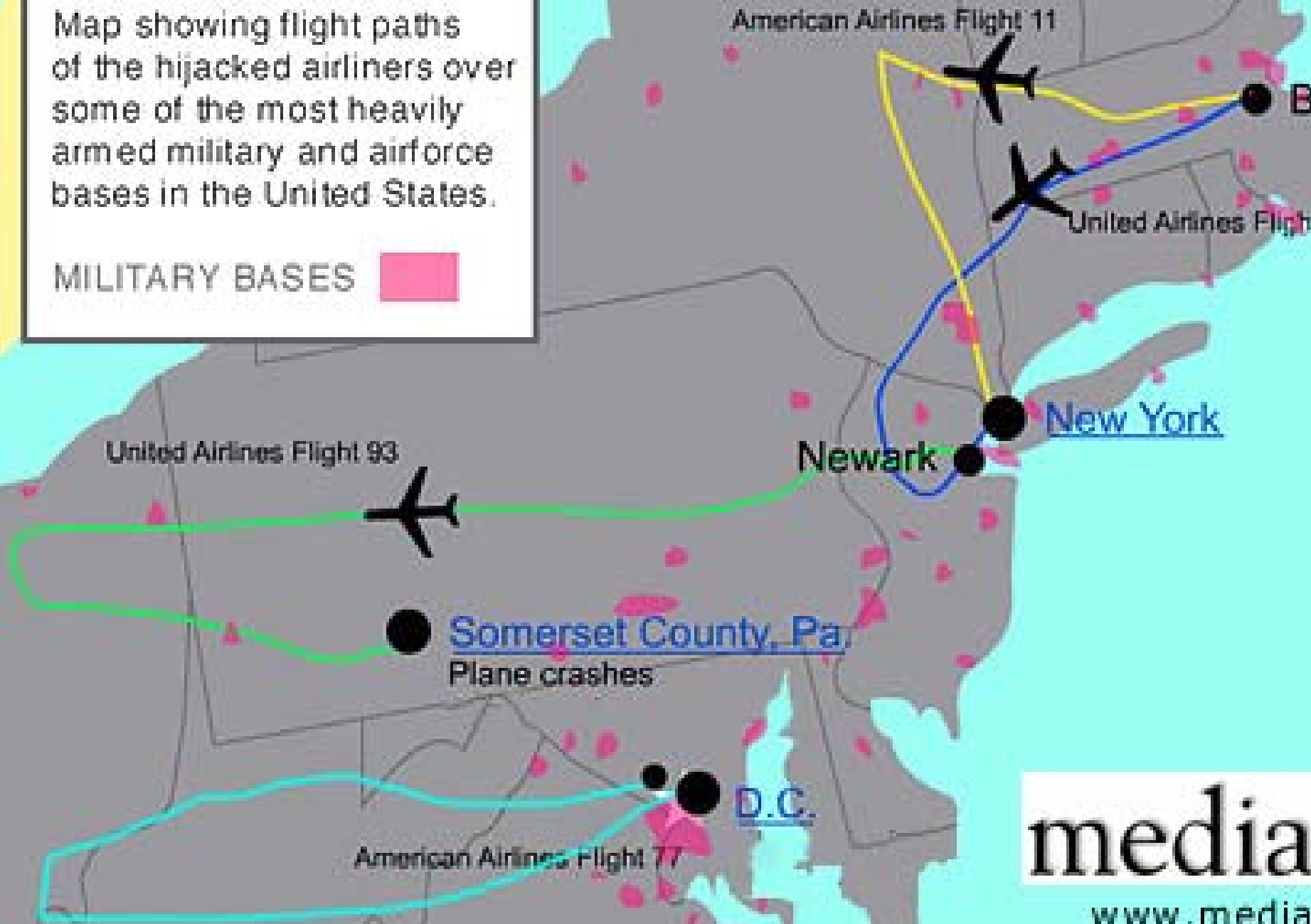
Suicide Hijacking: It was not the first time.



- In 1974, Samuel Byck attempted to hijack a plane at Baltimore/Washington International Airport and fly it into the White House, in an attempt to assassinate President Nixon.
- In 1994, four terrorists hijacked an Air France aircraft at Algiers in an apparent attempt to fly it into the Eiffel Tower or explode it over Paris.

Map showing flight paths of the hijacked airliners over some of the most heavily armed military and airforce bases in the United States.

MILITARY BASES



American Airlines Flight 11

United Airlines Flight

United Airlines Flight 93

Newark

New York

Somerset County, Pa.

Plane crashes

D.C.

American Airlines Flight 77

media

www.media

A photograph of the World Trade Center towers on 9/11, with a large explosion and fire at the base of the towers.

Post 9/11 Legislation

EQUIPMENT & TECHNOLOGY.

The U.S. Congress mandated fortified cockpit doors on U.S. airliners. Congress also required the installation of video monitors so that cockpit crew can see what is going on in the cabin, and a switch, so that cabin crew can notify the cockpit of disturbances. Enhanced security also is required for airport perimeter access. All U.S. airports were required to be equipped with explosive detection system (EDS) to scan all bags by the end of 2002. EDT machines are produced by only two certified manufacturers— InVision Technologies and L3 Communications.

Millimeter-wave Imaging

The Transportation Security Administration is testing a system at TSA to help detect weapons and explosives. The equipment scans a passenger's entire body and creates a three-dimensional image, minus the passenger's clothing.

How it works:

1. The passenger steps inside the scanner and stands with his feet arms raised.
2. Two antennae quickly rotate around the passenger while projecting beams of radio-frequency energy.
3. Energy absorbed by the system is one one-hundredth that of a cellphone.
4. The waves penetrate clothing and reflect off the skin and any concealed items.
5. The images, with facial features obscured, are viewed by security personnel in a control room. The images are deleted after viewing and cannot be stored.

The passenger feels the warmth of the scanner.

Photo by Gregory Chang, The New York Times

Source: Transportation Security Administration; Scientific American; Associated Press; Thomas H. Dineen, The New York Times

- TECHNOLOGY IS IMPORTANT.
- BUT EVEN THE BEST TECHNOLOGY CAN NOT DO IT ALL.

PROCEDURES.

Airport security personnel screen 1.3 billion bags in the United States annually. Within sixty days, airports had to screen luggage by either: (1) bomb detection machines; (2) manual searches; (3) dog sniffing; or (4) matching bags with passengers. As soon as practicable, all personnel, goods, property, and vehicles that enter the secured area of an airport must be screened or inspected. TSA also must develop procedures for screening and inspecting all individuals, goods, vehicles, and other equipment before they are allowed to enter the secured area of an airport. All U.S. and foreign airlines bringing passengers to the United States from abroad must make their passenger manifests (with passport and visa numbers) available to Customs prior to arrival.




PERSONNEL



National guardsmen were quickly added to airports after September 11th. Criminal background checks were required to be imposed on 750,000 airport employees and the nation's 28,000 screeners became federal employees. However, 25% of then-existing screeners were not U.S. citizens and had to be dismissed. The law requires that they be U.S. citizens, pass a criminal background check, be tested for drugs, be proficient in the English language, and be adequately trained. Federal security managers are to be posted at each U.S. commercial airport to oversee and supervise the passenger, baggage, and cargo screening functions. Armed air marshals are to be added to domestic flights. Individuals seeking to enter flight school must undergo a forty-five-day pre-clearance procedure conducted by the Department of Justice. Airline flight crews are to undergo training on how to deal with a terrorist incident aboard the aircraft, and the opportunity for them to carry weapons in the cockpit was added by the Arming Pilots Against Terrorism Act of 2002.

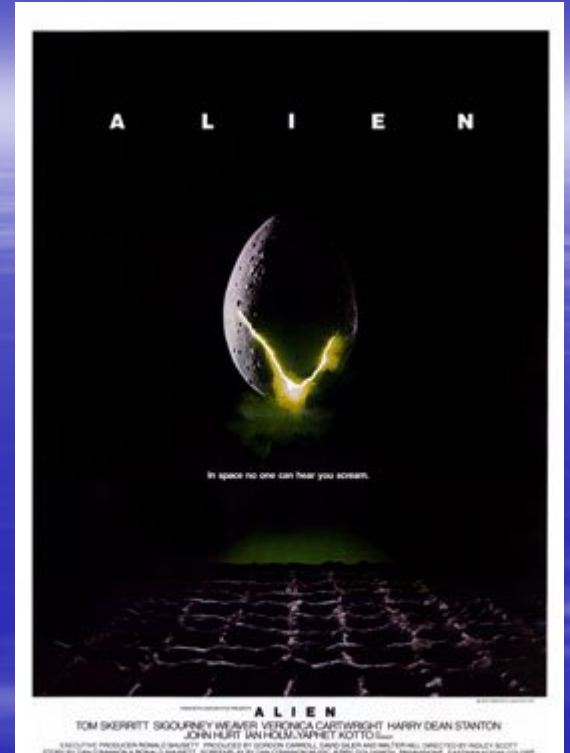
The Need for Layered Security Systems

Transportation security can best be achieved through coherent security systems that are well integrated with transportation operations and are deliberately designed to deter terrorists even as they selectively guard against and prepare for terrorist attacks. In particular, layered security systems, characterized by an interleaved and concentric set of security features, have the greatest potential to deter and protect. Layered systems cannot be breached by the defeat of a single security feature—such as a gate or guard—as each layer provides backup for the others, so that the impermeability of individual layers is not required. Moreover, the interleaved layers can confound the would-be terrorist. Calculating the odds of breaching a multi-tiered system of defense is far more difficult than calculating the odds of defeating a single, perimeter protection.

An aerial photograph of a city at sunset. The sun is low on the horizon, casting a warm, golden glow over the buildings and streets. The sky is a mix of orange, yellow, and blue. The city below is a dense grid of buildings, with some taller structures visible. The overall scene is peaceful and scenic.

**Law is only one
mechanism to
achieve safe and
secure skies.**

WHAT ARE WE UP AGAINST?





AND WHAT HAPPENS IF WE FAIL?

WE MUST SUCCEED.





Institute of Air & Space Law

Aviation Security: The Role of International Law

Professor Dr. Paul Stephen Dempsey
Director, Institute of Air & Space Law
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