

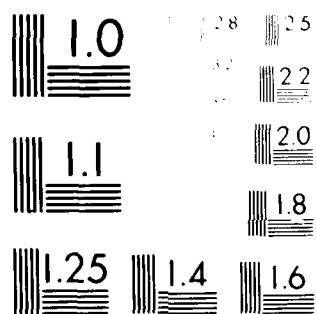
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ON THE

EFFECTIVENESS OF THE CIVIL AVIATION SECURITY PROGRAM



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JANUARY 1 - JUNE 30, 1980

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
OFFICE OF CIVIL AVIATION SECURITY

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16. Abstract The report includes an analysis of the current threat against civil aviation along with information regarding hijacking attempts, security incidents, bomb threats, and passenger screening activity. It also summarizes ongoing activities to assure adequate protection of civil air commerce against hijacking/sabotage and related crimes, and other aspects of the Civil Aviation Security Program.			
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DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WASHINGTON, D.C. 20591

October 14, 1980



OFFICE OF
THE ADMINISTRATOR

The Honorable Walter F. Mondale
President of the Senate
Washington, D.C. 20510

Dear Mr. President:

Enclosed is the Federal Aviation Administration's Semiannual Report on the Effectiveness of the Civil Aviation Security Program. It covers the period January 1 through June 30, 1980, and is submitted in accordance with Section 315(a) of the Federal Aviation Act.

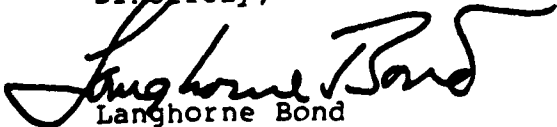
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While added security measures have been instituted to prevent such hijackings, the most positive development was the September 16 announcement by the Cuban Government that future hijackers would be subject to drastic penal measures or returned to the United States for prosecution. The United States applauded this positive statement and quickly took advantage of Cuba's offer to return the two men who hijacked a Delta Air Lines aircraft to Cuba on September 17. They are now facing U.S. air piracy charges. Hopefully, the return and prosecution of these hijackers will deter other would-be Cuban refugee hijackers.

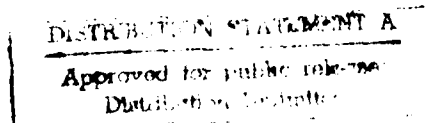
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A report has also been sent to the Speaker of the House of Representatives.

Sincerely,


Langhorne Bond
Administrator

Enclosure



DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WASHINGTON, D.C. 20591

October 14, 1980

The Honorable Thomas P. O'Neill, Jr.
Speaker of the House of Representatives
Washington, D.C. 20515



OFFICE OF
THE ADMINISTRATOR

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Enclosure



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I. EXECUTIVE HIGHLIGHTS

1. THIS REPORT COVERS THE PERIOD JANUARY-JUNE 1980.
2. U.S. SECURITY REQUIREMENTS COVER 195 U.S. AND FOREIGN AIRLINES OPERATING OVER 15,000 FLIGHTS DAILY FROM ABOUT 670 U.S. AND FOREIGN AIRPORTS.
3. ABOUT 290 MILLION PERSONS PROCESSED THROUGH U.S. PASSENGER CHECKPOINTS. OVER 1,000 FIREARMS DETECTED. 520 RELATED ARRESTS.
4. WORLDWIDE, 12 SCHEDULED AIR CARRIER HIJACKINGS OCCURRED (6 SUCCESSFUL). 4 AGAINST U.S. AIRCRAFT (2 SUCCESSFUL).
5. THE 4 HIJACKINGS OF U.S. AIR CARRIER AIRCRAFT ARE THE LEAST FOR ANY HALF YEAR PERIOD SINCE JUNE 1978.
6. 1 U.S. GENERAL AVIATION AIRCRAFT UNSUCCESSFUL HIJACKING.
7. ONE OF THE HIJACKINGS WAS THE RESULT OF A REAL FIREARM APPARENTLY PENETRATING THE SCREENING SYSTEM PROVING THE SYSTEM IS EFFECTIVE BUT NOT INFALLIBLE.
8. CIVIL AVIATION REMAINS VULNERABLE TO TERRORIST ACTS. AREAS OF GREATEST DANGER ARE EUROPE, THE MIDDLE EAST, AND CENTRAL AMERICA. IN THE U.S., ANTI-CASTRO, AND PUERTO RICAN NATIONALIST GROUPS CONTINUE TO POSE A THREAT.
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 - C. REGIONAL INCIDENT MANAGEMENT SEMINARS DEVELOPED.
 - D. QUICK RESPONSE LAW ENFORCEMENT PLANS APPROVED AT 17 AIRPORTS.
 - E. LEAA TO CEASE FUNDING OF TRAINING OF LAW ENFORCEMENT OFFICERS SUPPORTING AIRPORT SECURITY ACTIVITIES.
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 - G. X-RAY ABSORPTION SYSTEM TO DETECT BOMBS IN CHECKED BAGGAGE UNDERGOING OPERATIONAL TESTING.
 - H. OTHER RESEARCH AND DEVELOPMENT PROJECTS TO IMPROVE EXPLOSIVE DETECTION CAPABILITIES ON SCHEDULE.
13. 333 ALLEGED SECURITY VIOLATIONS BY U.S. AND FOREIGN AIR CARRIERS AND AIRPORTS INVESTIGATED. 27 RESULTED IN CIVIL PENALTIES TOTALING \$22,450.
14. 856 ALLEGED SECURITY VIOLATIONS BY INDIVIDUALS INVESTIGATED. 59 RESULTED IN CIVIL PENALTIES TOTALING \$9,685.

II. INTRODUCTION

This is the 12th Semiannual Report to Congress on the Effectiveness of the U.S. Civil Aviation Security Program. It covers the period January 1-June 30, 1980, and is submitted in accordance with Section 315(a) of the Federal Aviation Act.

III. U.S. AIRCRAFT HIJACKINGS

The four U.S. scheduled air carrier aircraft hijackings during this reporting period were the least in number during any 6-month period since the first half of 1978. While the reduction in total hijackings is encouraging, unfortunately two of the four hijackings were successful to Cuba. In one of these incidents the hijacker had a small pistol which he apparently carried through the screening system without detection prior to boarding. This hijacking confirms that while the current screening system is very effective it is not infallible and demonstrates the need for vigilance at passenger screening checkpoints. During this period one general aviation hijacking occurred, which was unsuccessful.

The following is a summary of each of the four U.S. scheduled air carrier aircraft hijackings and the one general aviation hijacking which occurred during this reporting period:

(See Exhibits 1, 2, and 3.)

- o January 25 - A Delta Air Lines L-1011 aircraft was en route from Atlanta, Georgia, to New York City when a man claiming to have a bomb and displaying a handgun demanded to be flown to Cuba. After landing in Havana the hijacker would not let Cuban officials aboard and demanded to be flown to Iran. During negotiations, the hijacker remained in the cockpit and the flight attendants and most of the passengers escaped through a hatch in the rear of the aircraft. After learning of the passengers' escape the hijacker demanded that the aircraft take off. He was convinced that this was not possible and with his wife and two daughters he deplaned and surrendered to Cuban authorities. He did not have any explosives. The hijacker's wife and children returned to the United States on February 11.
- o April 9 - As an American Airlines B-727 aircraft was being prepared for a flight from Ontario, California, to Chicago, Illinois, a man armed with a pistol scaled an airport fence, boarded the aircraft, and demanded to be flown to Havana. No passengers were aboard. He did not give any reason for his action. The aircraft landed at Dallas-Fort Worth Regional Airport and was refueled. It then flew to Havana where the hijacker surrendered and was taken into custody by Cuban authorities.

- April 14 - While a Continental Air Lines B-727 aircraft was boarding passengers for a flight from Denver, Colorado, to Ontario, California, a man boarded, brandished a knife, entered the cockpit, and demanded the aircraft take off immediately. Flight attendants observed what was occurring and began helping passengers deplane. After some delay, the hijacker dropped the knife in an apparent act of surrender and was taken into custody. He has been convicted of aircraft piracy and is undergoing further psychiatric evaluation prior to being sentenced.
- May 1 - Armed with a pistol a man scaled an airport fence and boarded a Pacific Southwest Airlines B-727 aircraft as it was being prepared for a flight from Stockton to Los Angeles, California. No passengers were aboard. Just after the hijacker boarded all of the crew except the flight engineer escaped. The hijacker demanded flight to Iran and press coverage to present his views on Iran and the holding of U.S. hostages. During the course of negotiations he was allowed to read a statement to the press via the aircraft radio. With the pistol in his waistband, the hijacker turned his back to the flight engineer who disarmed him. The flight engineer deplaned and the hijacker surrendered. During subsequent search of the aircraft a smoke grenade was found in a knapsack which the hijacker had carried aboard. He has been charged with aircraft piracy.
- May 15 - Armed with a pistol and a rifle a man approached a group of maintenance personnel of Chalks International Airlines (a commuter airline) at a seaplane dock, Port of Miami, Florida. The man pointed his pistol at one of the maintenance men and forced him to board a Grumman Mallard (G-73) aircraft which the maintenance personnel had been preparing for flight. Upon learning that the maintenance man could not fly the aircraft, the hijacker demanded that a pilot be provided to fly him to Capetown, South Africa. After several hours of negotiation he was persuaded to surrender and was taken into custody. He has been charged with aircraft piracy.

The number of hijackings or other crimes against civil aviation which have been prevented by airline and airport procedures cannot be determined with certainty. However, the Federal Aviation Administration (FAA) has attempted to identify and record those incidents in which it appeared that an individual intended to commit a crime against civil aviation but was prevented from doing so by the security procedures in effect. Three incidents of this kind occurred during this period, raising the total number of hijackings or related crimes believed prevented to 83 since 1973. The incidents are summarized below:

(See Exhibit 4.)

- February 15 - A woman caused the weapon detector to alarm as she walked through. During physical inspection of her coat a fully loaded pistol was located and additional ammunition was found in her shirt pocket. In addition, she was found to be carrying a large amount of money on her person. A short time prior to being screened the woman had asked a member of the airport police department various questions concerning the airport and had inquired as to the way to transport a weapon aboard an aircraft. She was told a weapon could not be carried aboard and she was given instructions in the proper procedures for carrying a weapon in checked baggage. She disregarded the officer's instructions and attempted to carry the weapon through screening. She was arrested and charged with carrying a concealed weapon.
- March 9 - What appeared to be two weapons were detected by x-ray in a small trunk which the owner intended to carry aboard a flight. When the trunk was inspected a false bottom was located beneath which a pistol, a sawed-off shotgun, and ammunition for both weapons were discovered. The male passenger who owned the trunk and his two male companions all denied knowledge as to how the weapons came to be in the trunk. A record check revealed that charges were pending against the owner of the trunk for previous weapons offenses. The man was arrested and charged with carrying a concealed weapon and possession of a sawed-off shotgun.
- March 13 - An item was detected by x-ray which caused a screening employee to conduct a physical inspection of a man's carry-on bag. While searching the bag the screener felt the barrel of a handgun. Before it was identified the screener asked the man what the item was and was told it was a piece of machinery. When the screener determined that the item was in fact the barrel of a handgun, the law enforcement officer was notified. Further inspection of the man's carry-on items revealed, in a second bag, a handgun trigger assembly and a clip of ammunition. At this point, the man claimed no knowledge of the presence of the handgun items. He then stated he had decided not to fly and at his request, contrary to procedure, the inspection process was stopped and his bags returned. He was released and left the terminal. It was later determined that the man was reportedly dying of cancer. Corrective action was taken to prevent the future release of persons found to be attempting to carry weapons through screening.

IV. FOREIGN HIJACKINGS

During the first half of 1980, just as during the last half of 1979 there were eight foreign aircraft hijackings. All were against scheduled air carriers. Four were successful, and in five of the eight, the hijackers possessed real weapons. In four of these incidents the weapons are known to have been introduced through the normal passenger boarding process and should have been intercepted by effective passenger and carry-on baggage screening procedures.

(See Exhibit 2.)

V. AIRCRAFT/AIRPORT SABOTAGE

Three significant incidents involving actual or suspected explosive devices occurred during this period and are summarized below:

(See Exhibit 7.)

- January 21 - An anonymous caller advised United Air Lines that an explosive device was aboard their Flight 199, a DC-8 aircraft, which was en route from San Diego, California, to Honolulu, Hawaii. The caller claimed the device would detonate if the aircraft descended below 5,000 feet and demanded one million dollars for information on how to disarm the bomb. The aircraft was diverted to Colorado Springs, Colorado. While en route, a box containing what appeared to be dynamite, wires, batteries, and a pressure device was discovered in a restroom. After landing, the container and its contents were examined by explosive technicians and found to be a hoax device which closely resembled a real bomb.
- January 22 - During the early morning hours, a bomb exploded on a conveyor belt behind the ticket counter of China Airlines at Los Angeles International Airport. The ticket counter was closed at the time. The detonation occurred approximately four feet from the end of the belt out of sight of persons walking by the ticket counter. The bomb was a galvanized pipe probably containing black powder. There was considerable property damage but no injuries.
- June 2 - While cleaning a men's restroom in the Philadelphia International Airport a custodian discovered two cans taped together. Suspecting the item to be an explosive device, the custodian reported what he had found. The Philadelphia police bomb squad was called and identified the object as two military smoke grenades. They were safely removed from the building and disarmed.

VI. BOMB THREATS

Threats involving the use of explosives against aircraft and airports decreased during this reporting period totaling 665 as compared to 706 and 724 received during the first and last halves of 1979, respectively. Twenty-five persons were arrested for making bomb threats against aircraft or airports during the January-June 1980 period.

There were 524 bomb threats made against aircraft. Of these, 375 (71.5%) were considered serious as defined in Exhibit 5. Of the serious threats, 285 or almost 76% were received by telephone. The remaining 90 were made verbally at screening checkpoints, other locations, or were made visually or in writing. These serious threats against aircraft caused a reported 196 searches and 166 flight delays or diversions, all of which resulted in disruption of airline operations and inconvenience to passengers. The serious threats involved 28 U.S. air carriers and 16 foreign air carriers. Twelve of the threats were accompanied by extortion demands.

Almost all bomb threats against airports are received under circumstances which make an evaluation as to their seriousness impractical, therefore, no attempt was made to make a distinction of this nature. There were 141 bomb threats received against airports this reporting period. These threats resulted in 115 searches, 15 evacuations of airport facilities, and at least 4 flight delays. Four were accompanied by extortion demands.

(See Exhibits 5, 6, and 7.)

VII. CURRENT THREAT ESTIMATE

Civil Aviation continues to be an attractive and dramatic target worldwide as evidenced by the high level of hijackings and aviation-related sabotage incidents during the reporting period.

A total of 12 air carrier hijackings occurred worldwide during January-June 1980, resulting in six successful hijackings. This figure compares to the 13 air carrier hijackings which took place during the last six months of 1979, seven of which were successful. If this high level of hijackings continues during the remainder of 1980, the number of hijackings for the year will approximate the high level of hijackings (23) that occurred during 1979. This record is a strong indicator that the hijack threat persists and that there is a continuing need for effective civil aviation security measures.

Acts of terrorism continue to pose a threat to civil aviation throughout the world. During this reporting period, five of the twelve hijackings were committed by members of what are considered to be terrorist organizations. The greatest danger remains in

Europe, the Middle East, and Central America. The various terrorist groups in these areas continue to improve their links and associations between each other, thereby enhancing their potential for terrorist acts against international targets.

In South America and the Far East, terrorist violence continued at a low level except in Colombia where terrorist acts have increased somewhat and in Japan where demonstrations and militant acts continued against Narita Airport and its possible expansion.

In the United States, anti-Fidel Castro groups and Puerto Rican nationalists continue to pose a threat to civil aviation; however, the level of activity of these groups was low during this reporting period. Terrorist violence anticipated against the Winter Olympics in February 1980 did not take place. The Cuban exodus which began in April and the United States open door policy in effect for these Cuban refugees, which has united some Cuban families for the first time in 20 years, may be the reason for the low level of activity. However, there is concern that some of these refugees may become homesick and disenchanted in the United States, and desperate to return to Cuba. Their only means of returning may be to attempt a hijacking, thus increasing the potential threat to a level similar to that of the Cuban refugee situation of 10-11 years ago.

Croatian and Serbian groups in the United States also continue to be of concern. These groups have participated in bombings, killings, extortions, hijackings, and have threatened further acts of hijacking and sabotage against U.S. and Yugoslavian airlines. Concern continues that Croatian/Serbian groups may undertake renewed terrorist attacks against U.S. interests in view of the U.S. support of former President Tito's regime. To date, the anticipated terrorist action has not materialized.

While the threat of hijacking persists, acts of sabotage and other criminal acts continue to pose a serious and increasing threat to civil aviation. A total of 43 criminal acts occurred during the period which resulted in two deaths and 30 injuries. Thirteen of these incidents were hijackings (12 air carriers, 1 general aviation); 19 were explosions (2 at airports, 17 at airline offices); and 7 incidents involved explosive devices discovered (2 aboard aircraft, 5 at airports). There was one terrorist attack at an airline office and three other criminal acts against civil aviation. Two incidents (an explosion at an airline office and a discovery of an explosive device aboard an aircraft), occurred in the United States, resulting in injury to eight persons.

Since 1974, worldwide criminal acts against civil aviation have resulted in 759 deaths and 746 injuries, with 116 deaths and 129 injuries involving U.S. civil aviation.

(See Exhibit 8.)

VIII. PASSENGER SCREENING

During the first half of 1980 about 290 million persons were processed through screening checkpoints at the nation's 399 airports where passenger screening is conducted. A total of 1,002 firearms were detected during this period. This is approximately 4% lower than the average of 1,042 firearms detected during the preceding six reporting periods. Ninety percent or 901 of the 1,002 firearms detected were discovered through x-ray inspection of carry-on items, 77 (8%) by weapons detector screening of individuals, and 24 (2%) by physical search.

During this reporting period 520 persons were arrested at screening points for carriage of firearms. This represents a 12% decrease from the 591 arrests which occurred during the first half of 1979 and a 13% increase over the average of 461 arrests for all reporting periods during the preceding 3 years. The 520 arrests involved some 31 U.S. airlines at 89 U.S. airports. Twenty-six large hub airports (e.g., Los Angeles and Atlanta) accounted for 329 (63%) of the arrests. Twenty-two medium hub airports (e.g., Memphis and Indianapolis) accounted for 100 (19%). The remaining 91 arrests or 18% of the total occurred at 41 small and non-hub airports (e.g., Shreveport and Boise). In 124 (24%) of the 520 arrests the individuals involved were fined, placed in confinement, and/or placed on probation. Charges were dropped or dismissed in 90 (17%) of the cases and action in the remaining 306 (60%) was still pending. Of the 214 cases which have been settled, 58% (the 124 cases cited above) have resulted in fines, confinement, or other disciplinary action.

(See Exhibit 9.)

Screening checkpoint equipment consists primarily of walk-through weapon detectors for individuals and, at high volume stations, x-ray inspection systems for carry-on items. Walk-through weapon detectors currently in use total 1,311 and x-ray baggage inspection systems number 701. In addition, 1,200 handheld devices are in place to back up the walk-through weapon detectors.

(See Exhibits 10 and 11.)

IX. CIVIL AVIATION SECURITY ACTIONS

Passenger screening and other security measures in effect continue to provide for the safety of airline passengers and crews as well as security for aircraft and airports. These measures currently involve 195 U.S. and foreign airline companies operating almost 15,000 flights each day to and from about 670 U.S. and foreign airports. In this regard, about 1.6 million persons with about 1.3 million pieces of carry-on items were screened daily.

(See Exhibit 12.)

The U.S. Civil Aviation Security Program is basically a cooperative and mutually supportive effort of all concerned--airlines, flight crews, airports, local communities, air travelers, and the Federal Government. Efforts are being made on a continuing basis to bring about improvements in the system and to ensure continued cooperation by all concerned.

(See Exhibit 13.)

Aircraft Security - During the first half of 1980 actions of significance concerning the security of aircraft included the development of new flight crew training aids, amendment of security regulations pertaining to indirect air carriers, improvement of screening point signs, development of regional incident management seminars, further study of proposed security regulations concerning air taxi/commercial operators, initiation of hijacking critiques, and the use of FAA Federal Air Marshals in the transporting of Cuban refugees. The following is a summary of these actions:

- Aircraft Crew Training Aids - In April the FAA completed one and a half years of an intensive effort to develop new audio-visual training aids for flight deck and flight attendant personnel of air carriers. This effort was accomplished with the assistance of the Federal Bureau of Investigation (FBI), the airline industry, and major crewmember organizations. The intent of this program is to develop an awareness on the part of these personnel regarding how their role in a hijacking fits with the activities of other individuals and agencies involved in the common strategy employed in these situations. The training programs have been approved and accepted by the aviation industry and are currently being incorporated into air carrier training curricula.
- Federal Aviation Regulation (FAR) Part 109 - In December 1979, FAR Part 109, "Indirect Air Carrier Security," was issued as an emergency final rule. Review of the operating experiences under the regulation indicated that there was a need to clarify the "applicability" portion of the rule and to establish training for personnel who have duties and responsibilities for accepting, packing, consolidating, or otherwise handling hazardous materials. Action has been undertaken to initiate an appropriate amendment. Additionally, the standard security program currently used by U.S. air carriers has been changed to incorporate requirements consistent with FAR Part 109 which pertain to indirect air carrier shipment of packages via air transportation.

Screening Point Consolidated Signs - In an effort to reduce the proliferation of security signs at preboard screening points throughout the United States, FAA developed a sign

which consolidates and refines security information presented to insure public awareness. The revised sign, in English and Spanish, has been approved by the Air Transport Association and air carriers and is currently being produced for wide distribution. It will be distributed for use by U.S. domestic air carriers only.

- Regional Incident Management Seminars - As a result of the enthusiasm generated by the FAA/FBI hijack incident management seminar conducted at the FBI Academy in 1979, a decision was made to conduct follow-on regional seminars throughout the United States. To accomplish this objective, the FAA and FBI jointly developed a 5-7 hour presentation for regional incident management seminars with significant input on local incident management issues from seminar participants. Thirteen seminars are scheduled to be presented throughout the country commencing in August 1980.

It is expected that through open discussion of the many facets of hijack incident response at these regional meetings, participants will develop a clear understanding of the Government/industry common strategy and the interface between local and national response action during an incident.

- Proposed FAR Part 108 - Air Taxi/Commercial Operators - The comment closing date of this proposed regulatory action was February 11. Comments have been received and analyzed with most commenters objecting to the security requirements on a perceived cost versus benefits basis. Since some of the cost data provided in the Notice were of a preliminary nature and reflected "worst case" situations and since many of the costs provided by the commenters appear to be overstated, FAA has initiated an in-depth economic study. Final results are expected in August 1980. FAA is also reevaluating its position as to the seating capacity of the aircraft that would be required to comply with the security rules proposed. It is estimated that the final rulemaking action will be accomplished by the end of 1980.
- Joint Government/Industry Hijack Critiques - To further promote the security of the air traveling public, FAA has initiated a hijacking critique program that is jointly hosted by the FBI. The program is designed to encourage candid examination by Government and industry representatives of actual hijack incidents from onset to conclusion with added emphasis upon the complexities of their management. These critiques are held with the air carriers directly involved in hijack incidents and with representatives of other Government agencies and the industry that have concerns or responsibilities with hijack management. Two of these critiques were

conducted during this reporting period, one to examine the Delta hijacking of January 25, and the second to examine three hijackings--American Airlines, April 9; Continental Airlines, April 14; and Pacific Southwest Airlines, May 1. These critiques which emphasize the need for total cooperation by all involved organizations have been highly beneficial to all parties concerned and have improved mutual understanding of the complexities of hijack incident management.

- Federal Air Marshal Cuban Refugee Mission - In May and June, FAA's Federal Air Marshals (FAM's) provided armed in-flight security support for air carrier flights transporting Cuban refugees from Boca Chica Naval Air Station, Key West, Florida, and other South Florida airports to processing and resettlement centers at Eglin Air Force Base, Florida; Fort Smith, Arkansas; Indiantown Gap, Pennsylvania; and Fort McCoy, Wisconsin. As of June 16, when the mission was terminated, the Federal Air Marshals and their supporting FAA Police Officers had flown an excess of 300 flights involving airlift of over 61,500 Cuban refugees.
- Deputation of Federal Air Marshals - Senate Bill S. 333, to effect certain reorganization of the Federal Government to strengthen Federal programs and policies for combating international and domestic terrorism was favorably reported out of the Committee on Governmental Affairs on June 25. Section 10 of the bill would grant the Administrator of the FAA the authority to deputize a few employees as Federal Air Marshals. Currently these marshals receive their law enforcement officer authority through special deputations by the U.S. Marshals Service on an annual basis.

Airport Security - Continuing activities which contributed significantly to airport security include the training of local law enforcement officers supporting airport security programs, the explosive detection K-9 team program, and the approval and implementation of quick response law enforcement provisions at certain airports. The following is a summary of these activities:

- Civil Aviation Security Training - This training is designed primarily for local law enforcement officers assigned to support airline and airport security programs. The tuition, travel, and per diem costs of the local officers at the 8-day course at the Transportation Safety Institute in Oklahoma City, Oklahoma, are presently funded by the Law Enforcement Assistance Administration (LEAA). The course provides in-depth coverage of civil aviation security requirements, procedures, and techniques. As of June 30, 100 classes have been conducted for 2,358 students, including 1,687 local

police officers, 313 foreign students, 282 FAA employees, 37 representatives of other U.S. Government agencies, and 31 aviation industry officials. In addition to the formal classes at Oklahoma City, special 2-day seminars, attended by 2,306 persons, have been conducted at 29 airports located throughout the nation. The LEAA, reflecting budgetary constraints, has formally notified the FAA that it will cease funding this program at the end of Fiscal Year 1980. It is the intention of the FAA to continue offering the course; however, it is anticipated that attendance will be significantly reduced as the officers' costs will have to be borne by the individual employers.

- o Explosive Detection Dog Teams - The FAA, in cooperation with the LEAA, has sponsored a program to strategically locate U.S. Air Force trained explosive detection K-9 teams in key cities near major airports. One dog and a handler constitute a team. The teams are positioned so that this emergency support will be readily available to threatened aircraft flying over the United States within half-hour flight time. Currently, 28 airports can provide this emergency K-9 explosive detection support. To date, in actual explosive detection missions, the teams have detected 26 explosive items in the course of 4,549 aircraft and airport searches. In addition, they have conducted 5,277 explosive searches in their local communities, detecting 120 additional explosive items. Several improvements have been made recently in the training and evaluation phases of the explosive detection K-9 program. These changes were deemed necessary due to revisions of basic K-9 application and utilization procedures and the development of improved procedures which allow the evaluations to be conducted under more realistic operational conditions. All of the changes and revisions were concurred in by the U.S. Air Force Dog Studies Group at Lackland Air Force Base and will be phased in by Spring 1981.
- o Quick Response Law Enforcement Concept - In certain instances, law enforcement officers supporting the screening system at an airport are now permitted to patrol in the public terminal areas as opposed to being at a fixed station at the screening checkpoints. The benefits of this new concept are expected to include an increased visibility of police at the airport, additional police presence in public areas, improved alertness of the individual police officers, and, occasionally, a reduction in cost. An airport desiring to implement this concept must develop a proposal which is submitted to FAA for extensive review. The agency must be satisfied that the proposal will result in an enhanced level of security at the airport. There must be effective

communications, alert equipment and procedures. Additionally, an acceptable response time by specifically identified police officers must be clearly demonstrated. To date the quick response law enforcement concept has been approved for selected areas at 17 airports.

Research and Development - The FAA has a comprehensive research and development program to develop methods and techniques to find explosives in passengers' checked baggage, in air cargo, and being carried by individuals. The following is the current status of the ongoing research and development efforts:

- o X-Ray Absorption - This concept is based on an automatic computer-based analysis of the size, shape, and x-ray density of checked baggage contents. An operational test of this technique at Newark International Airport demonstrated sufficient detection capabilities to warrant further development. As a result, the two existing detectors have been modified for operational use. One has been installed in a baggage make-up area at Dulles International Airport. In July a one-year operational evaluation will commence to determine the ability of this equipment to process checked baggage in a real world environment and to assess its efficiency in detecting the explosives of interest. Plans are being developed to place the system at various locations within the airport to gain varied operational experience. At the same time, the second detector which has been delivered to the FAA Technical Center will be used to test advanced computer programming techniques to enhance detection performance. This is the culmination of an 8-year research and development effort and is the first system of its type available anywhere in the world.
- o Thermal Neutron Activation - The technical feasibility of this concept, the identification of explosives by means of a reaction which is unique to specific explosive materials has been demonstrated. A portable system has been constructed which allows testing at different airports. Thus far testing has been conducted at Pittsburgh and Boston International Airports. Analysis of the test data is progressing on schedule and a decision concerning further development of this system will be made after completion of this analysis.
- o Nuclear Magnetic Resonance - The system relies on the detection of a characteristic response of explosive molecules when they are subjected to magnetic and pulsed radio frequency fields. After a scale model of the system was constructed and the feasibility of this concept demonstrated, an airport

evaluation to gather research and development data and to determine operating characteristics was conducted in the Spring of 1979. Analysis of this data was encouraging and additional airport evaluations have been scheduled for July and August at Dallas-Fort Worth Regional Airport. This evaluation will include air cargo as well as regular passenger checked baggage.

- Use of Small Animals to Detect Explosives - A contract was awarded to the Veterans Administration, Philadelphia Medical Research Wing, to determine the potential of small animals (e.g., gerbils and rats) in detecting explosives. It has been determined that these animals can be trained to detect an odor and perform a specific function. Laboratory equipment is in place and sensitivity tests will be performed in the Summer/Fall of 1980.
- Walk-by Explosive Detector - A program has been initiated by the Transportation Systems Center of the Department of Transportation to develop equipment which will detect explosives being carried by individuals. An unsuccessful attempt was made several years ago to develop a similar system. This new effort is being undertaken in view of the recent improvements in technology with regard to vapor collection and sampling. Success in this area would significantly contribute to the development of a complete explosive detection system covering all methods of placing explosives aboard aircraft.

International Activities - Participation of many other countries and international organizations in programs designed to prevent criminal acts against civil aviation has been very active. Encouraging and continuing efforts to improve the security of airports and aircraft have been noted.

The following are some of the important efforts which contributed to the improvement of international civil aviation security during this reporting period:

- Bonn Declaration on Hijacking - In July 1978, at an Economic Summit Conference held in Bonn, Germany, President Carter and the Heads of State of six other participant nations issued a Declaration of their commitment to intensify joint efforts to combat terrorism. The Declaration announced that where a country refuses extradition or prosecution of those who have hijacked an aircraft or if the country does not return the aircraft, the seven nations would initiate action to cease all flights to that country, to halt all incoming flights from that country, or from any country by airlines of the country concerned. Officials of the seven countries met in

Rome in May and examined the cases of international aviation hijackings which have occurred since August 1978. It was noted that in all 17 air carrier hijacking incidents the aircraft were promptly returned and the passengers were allowed to proceed. Some concern was expressed as to the legal position of the hijackers in several cases but it was agreed that there was no need at present to initiate sanctions. Participants agreed that there should be no relaxation in efforts to prevent and deter hijackings and that they would continue to examine all unresolved cases. Two draft statements were prepared consisting of a condemnation of the taking of hostages and attacks on diplomatic and consular premises and a reiteration of the concerns of the seven countries regarding the threat of hijacking to international civil aviation. These statements were formalized and issued to the press on behalf of the Heads of State and Government during the Venice Economic Summit Conference on June 22.

- International Civil Aviation Organization (ICAO) - In February, ICAO held its third South East Asia and Pacific Regional Aviation Security Seminar in Sydney, Australia. Representatives from 16 countries and 5 international organizations attended the meeting. Then in March, ICAO held its first aviation security seminar in the Leeward and Windward Islands. Representatives from eight countries, principally the West Indies, and associated States participated in this meeting. These seminars have proven to be an excellent forum for the exchange of views on civil aviation security matters such as: procedure implementation, needed additional measures, and training improvements. The seminars also foster cooperation and coordination between countries on all matters relevant to aviation security.
- International Criminal Police Organization (INTERPOL) - In January, the INTERPOL Committee of Experts on Civil Aviation Security held its second meeting in Saint Cloud, France. The participants at this meeting included representatives from ten countries and four international organizations. Topics of discussion included the selection, training, and role of police in hostage negotiations; matters relevant to bomb threats and searches of passengers and baggage; and the practice of denying unlawfully seized aircraft permission to land. Participants generally were uniform in their agreement that a hijacked aircraft should be allowed to land. This will be included in the Committee's report to the INTERPOL General Assembly Session in 1980.
- International Association of Bomb Technicians and Investigation Conference - In May, an FAA representative participated in the 8th Annual International Association of

Bomb Technicians and Investigation In-service Training Conference held at Albuquerque, New Mexico. The conference was attended by some 250 personnel representing all 50 of the United States, the U.S. Territories, other Federal agencies, and seven foreign countries. Many of the attendees are those who provide assistance to the U.S. airports during explosive-related incidents. The conference discussions centered on terrorist activities directed against domestic and international targets, and possible counter measures to these threats.

- o Foreign Technical Assistance - FAA has continued its bilateral program of technical assistance and exchange of information. FAA responds to requests of other governments by providing technical assistance of various types including visits of security teams to requesting countries, in-depth briefings of foreign officials, formal training at the Transportation Safety Institute (TSI), and distributing technical training aids and analytical studies. Technical assistance provided is expected to be sharply curtailed in Fiscal Year 1981 due to the loss of funds. Funds for formalized training and visits of security teams to requesting countries have been provided by the LEAA through an interagency agreement. As mentioned earlier in this report, this agreement expires at the end of Fiscal Year 1980.

X. COMPLIANCE AND ENFORCEMENT

Security regulations and security programs must be effectively implemented. FAA civil aviation security inspectors routinely survey the industry's security operations, to correct weaknesses and deficiencies and to identify security violations. During this reporting period 333 investigations were completed of alleged security violations by air carriers and airports. Where the violation is substantiated, action is taken to assure that corrections are made to assure future compliance by the violator and to deter violation by others. In 27 of the 333 cases, civil penalties totaling \$22,450 were imposed and in 258 cases, administrative corrective actions (including 149 warnings) were taken. In the remaining 48 cases the alleged violation was not substantiated.

FAR Part 107, Airport Security, was amended in March 1979 to include a provision prohibiting the unauthorized carriage of firearms, explosives, or incendiary devices through passenger screening checkpoints. During the first six months of calendar year 1980, 825 investigations of alleged violations of this regulation were completed resulting in 47 civil penalties totaling \$5,335. In 702 cases, the matter was closed by administrative action and in the remaining 76 cases, the alleged violation was not substantiated.

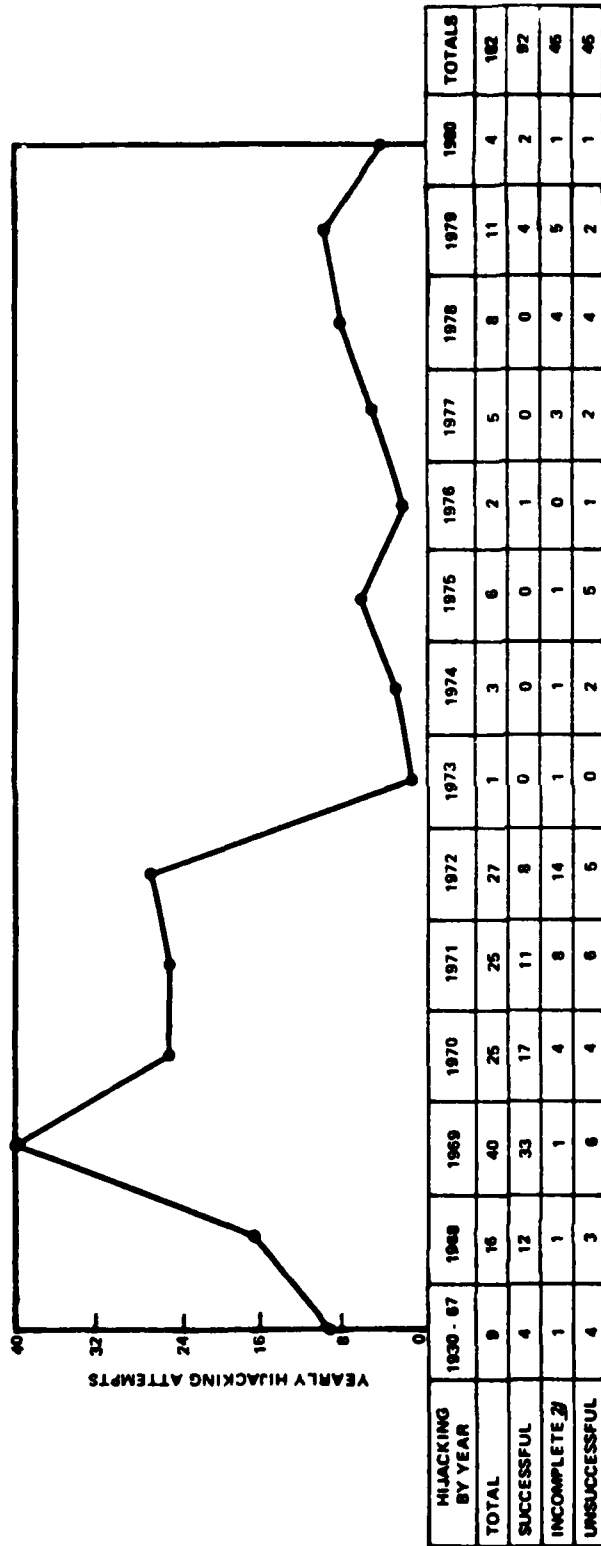
FAR Section 121.585 prohibits individuals from having deadly or dangerous weapons accessible to them aboard an aircraft except when specified conditions are met and also prohibits the carriage of loaded firearms in checked baggage. During this reporting period 31 investigations of alleged violations of this regulation were completed resulting in 12 civil penalties totaling \$4,350. In 12 investigations, administrative action was taken and 7 alleged violations were not substantiated.

(See Exhibit 17.)

XI. OUTLOOK

Attempts to hijack aircraft and sabotage aviation facilities are expected to continue at a relatively high rate. To meet this threat, a steady increasing trend in cooperative efforts is expected between involved national and international agencies. These agencies are dedicated to the improvement of preventive security measures and the reduction of adverse consequences of these criminal acts.

HIJACKING ATTEMPTS ON U.S. SCHEDULED AIR CARRIER AIRCRAFT 1/



As of: 7/1/80

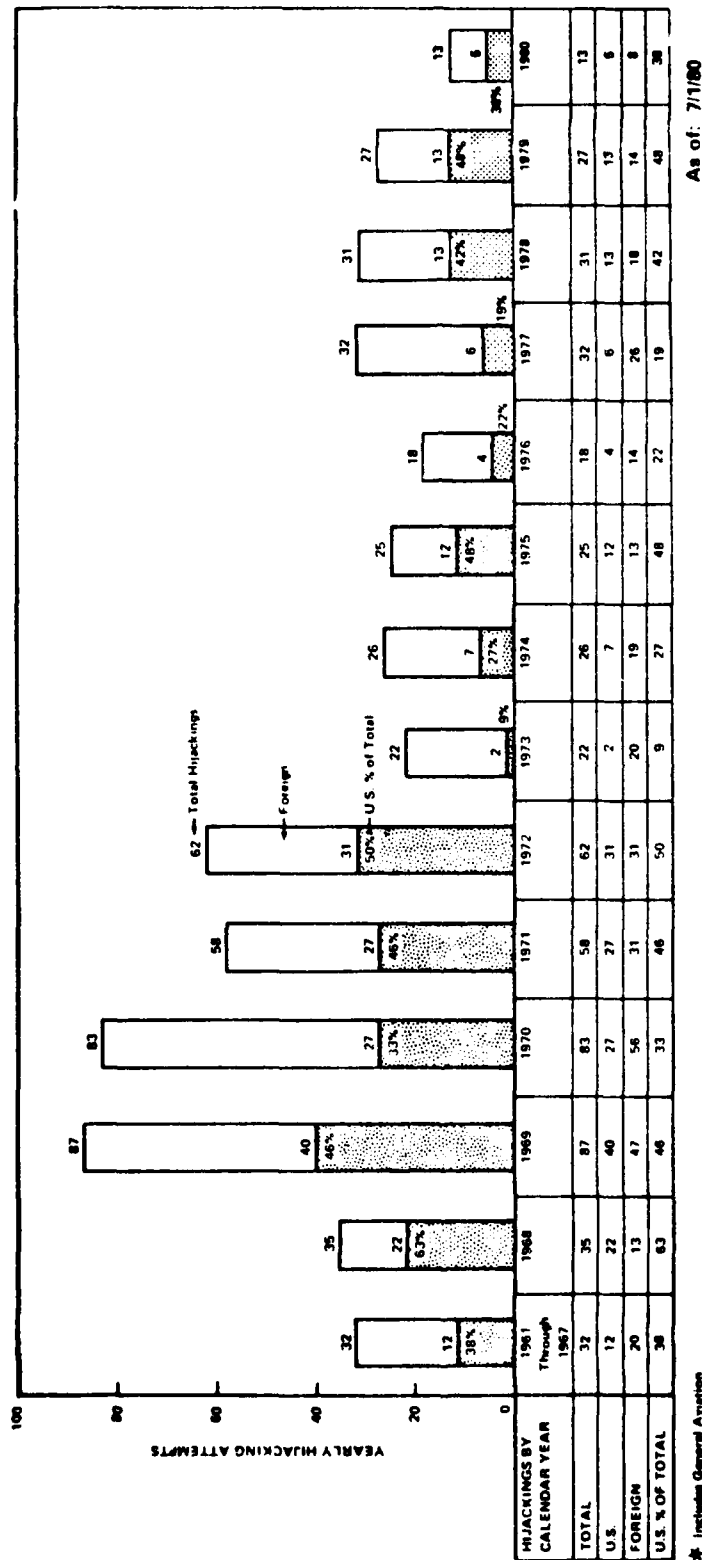
U.S. AIR CARRIER HIJACKING ATTEMPTS SINCE JAN 1, 1980

DATE	AIRLINE/FLT AIRCRAFT	NUMBER ABOARD	FLIGHT		HIJACKER DEST/OBJECTIVE	REMARKS
			ORIGIN	DESTINATION		
1/25/80	DA/118/L 1011	63	Atlanta, GA	New York, NY	Cuba	Successful 1 Male Fugitive
4/9/80	AA/368/B 777	8	Ontario, CA	Chicago, IL	Cuba	Successful 1 Male Fugitive
4/14/80	CO/118 777	78	Denver, CO	Ontario, CA	Libya	Unsuccessful 1 Male Surrendered
5/9/80	PS/818/B 777	9	Stockton, CA	Los Angeles, CA	Iran	Incomplete 1 Male Captured

- 1/ Includes commercial operators operating in intrastate common carriage covered by Code of Federal Regulations Title 14 Part 121.7.
2/ Hijacking in which hijacker is apprehended/killed during hijacking or a result of "hot pursuit".

Department of Transportation
Federal Aviation Administration

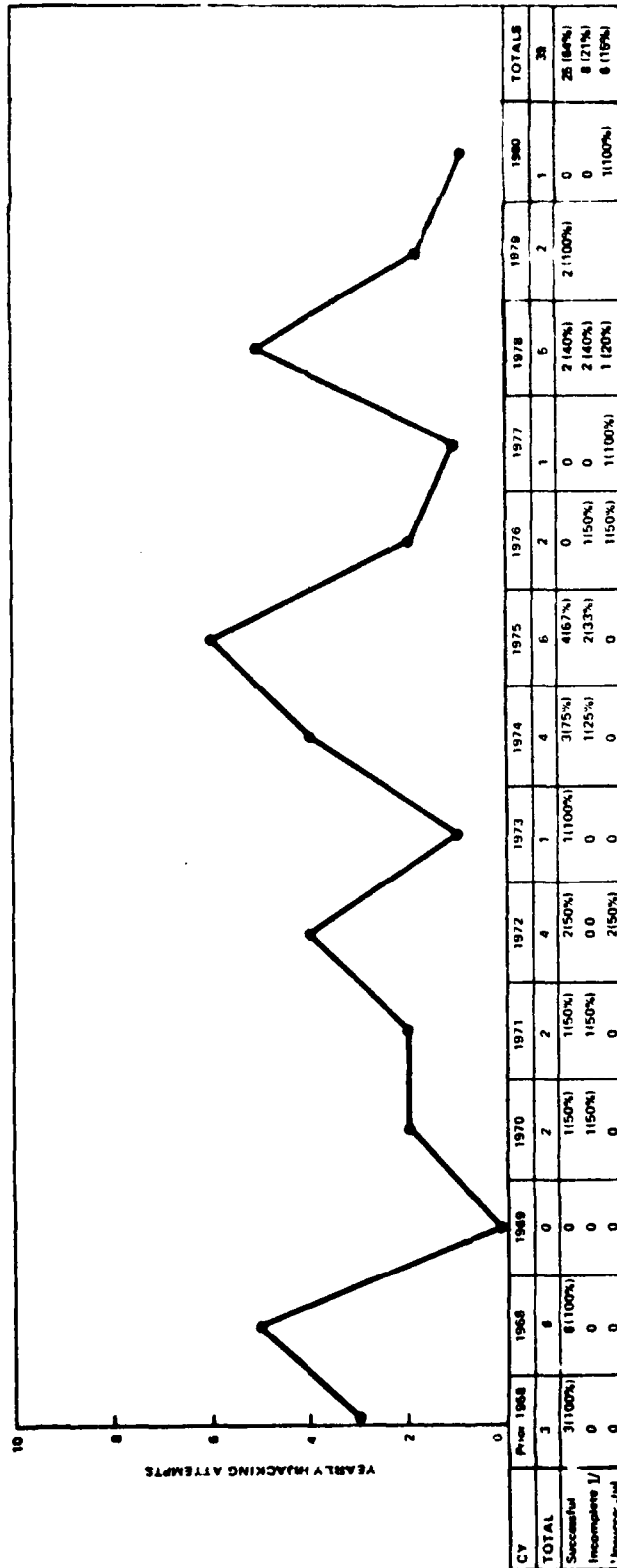
HIJACKING ATTEMPTS ON U.S. FOREIGN AIRCRAFT *



* Includes General Aviation

Department of Transportation
Federal Aviation Administration

HIJACKING ATTEMPTS ON U.S. GENERAL AVIATION AIRCRAFT

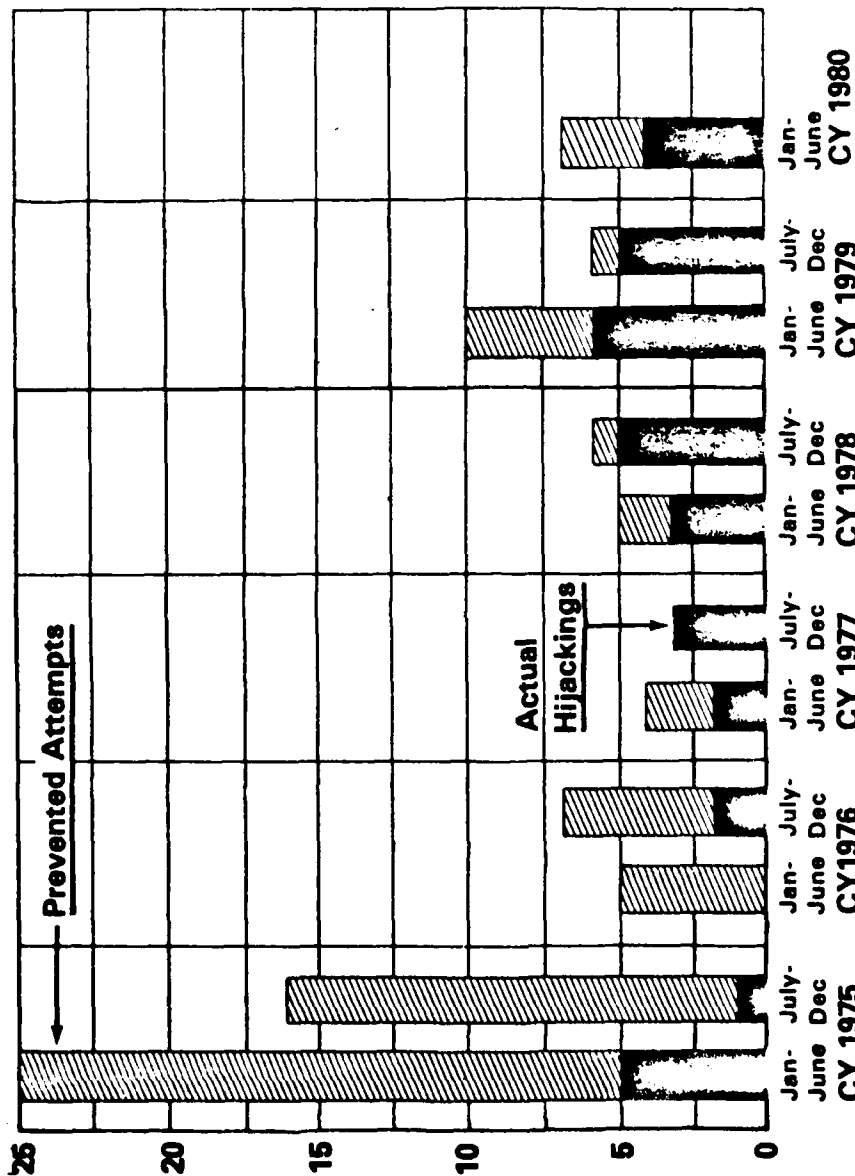


As of: 7/1/80

GENERAL AVIATION HIJACKING ATTEMPTS SINCE JANUARY 1 1980						
DATE	AIRCRAFT	NUMBER ABOARD	FLIGHT		HIJACKER DEST/OBJECTIVE	REMARKS
			ORIGIN	DESTINATION		
9/1/80	Boeing 73	2	Miami FL	Out of service	South Africa	Unsuccessful 1 male, 1 unharmed

Hijacking in which hijacker is apprehended/fined during hijacking or as a result of "hot pursuit."

ACTUAL HIJACKINGS & PREVENTED ATTEMPTS (U.S. AIR CARRIER AIRCRAFT)

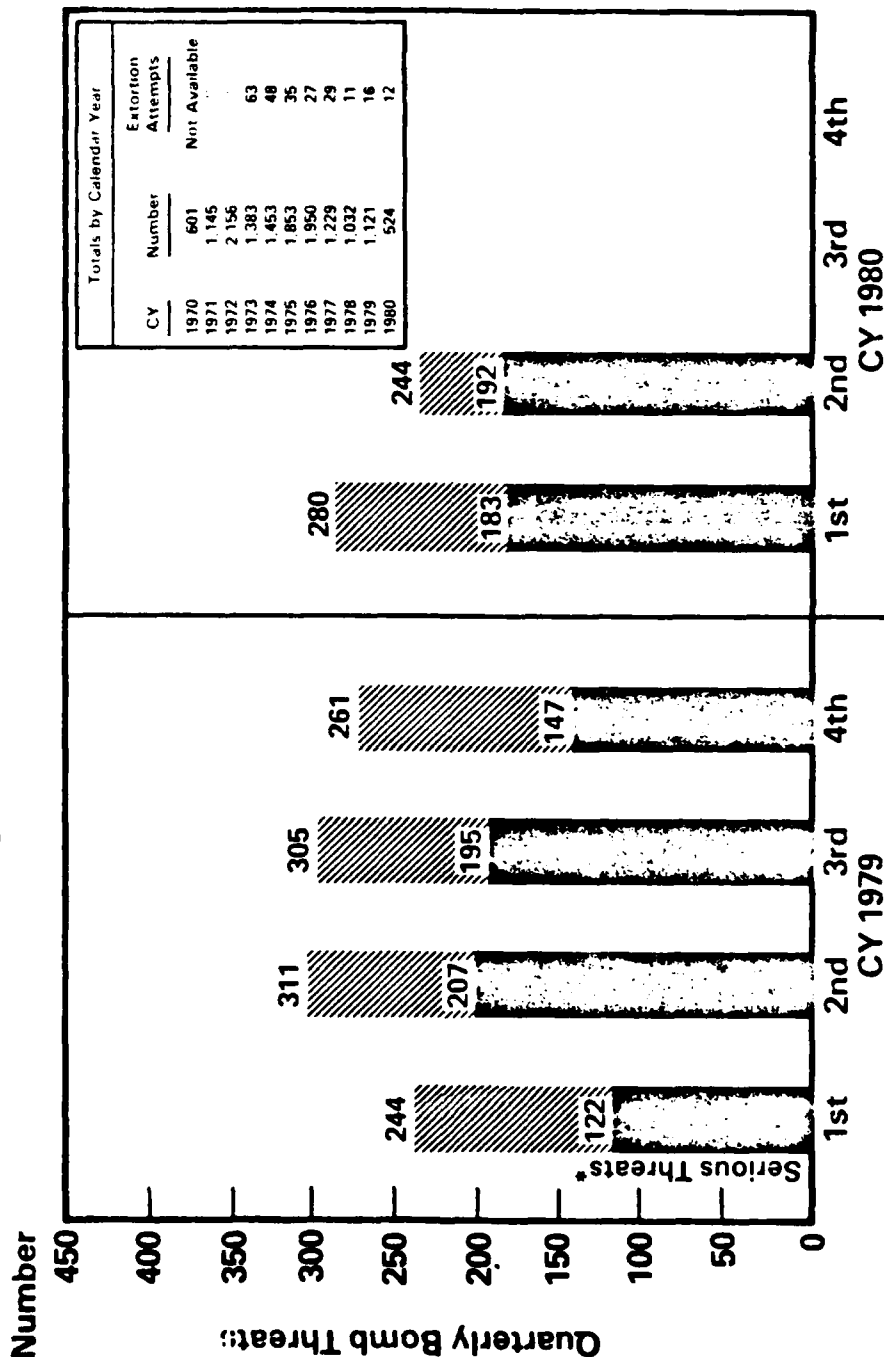


PREVENTED ATTEMPTS: Incidents in which it appeared the individuals involved intended to hijack an aircraft but were prevented from doing so by security procedures.

As of: 7/1/80

Department of Transportation
Federal Aviation Administration

Bomb Threats Against U.S. Aircraft and Foreign Aircraft in the U.S.



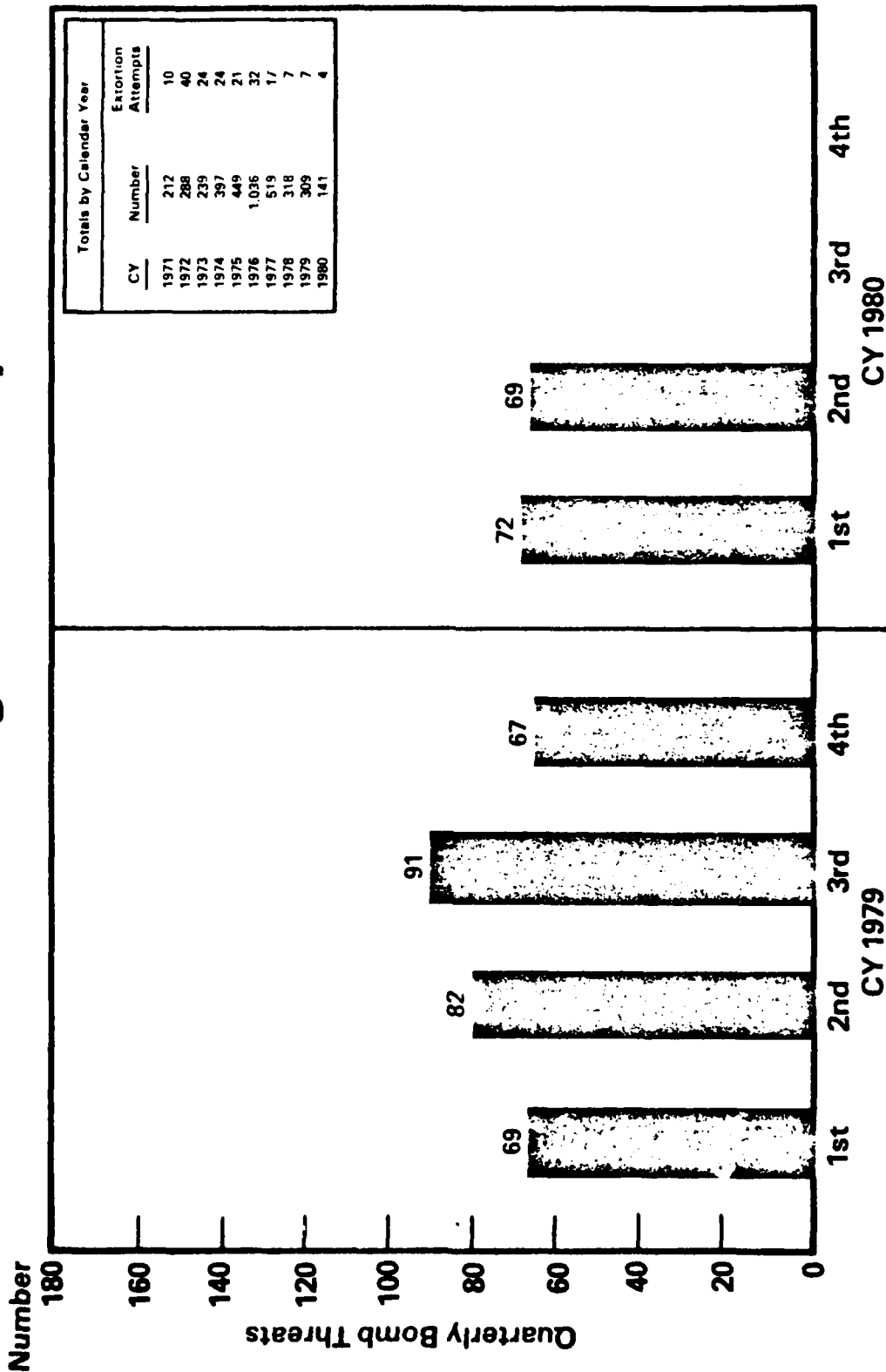
*A statement is considered a serious threat if one of the following occurs

1. It is directed against a particular aircraft or flight
2. It is not possible to immediately determine if it is made in a joking manner
3. It results in inconvenience to other passengers
4. It results in a search or otherwise disrupts airline operations

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Department of Transportation
Federal Aviation Administration

Bomb Threats Against U.S. Airports



As of: 7/1/80

EXHIBIT 6

Civil Aviation Security The Threat To U.S. Aviation

	1961-7	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
<u>Hijackings*</u>	12	22	40	27	27	31	2	7	12	4	6	13	13	5
<u>Explosions:</u>														
Aircraft	2	1	1	2	1	1	2	3	2	2	1	0	1	0
Airports						2	2	4	4	2	3	3	2	1
<u>Explosive Devices Found:</u>														
Aircraft					1	2	2	1	1	1	2	0	2	1
Airports					5	5	3	11	5	3	1	6	6	2
<u>Bomb Threats To:</u>														
Aircraft			400	601	1145	2156	1383	1453	1853	1950	1229	1032	1121	524
Airports					212	288	239	387	449	1036	519	318	309	141

*Includes Air Carrier and General Aviation Hijackings

As Of: 7/1/80

EXHIBIT 7

Worldwide Criminal Incidents Involving Civil Aviation

Year	Deaths	Injuries	Total Incidents	Hijackings (Scheduled Air Carriers)	
				Foreign	U.S.A.
1968 *	2	2	30	13	17
1969 *	35	7	92	47	40
1970	92	32	82	56	25
1971	31	9	73	31	25
1972	159	96	88	31	27
1973	104	75	73	20	1
1974	170	59	62	19	3
1975	88	162	64	13	6
1976	227	200	55	13	2
1977	129	68	69	25	5
1978	81	147	71	17	8
1979	62	80	85	12	11
1980	2	20	43	8	4

* Statistical data prior to 1970 are approximations.

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Department of Transportation
Federal Aviation Administration

Civil Aviation Security

Airline Passenger Screening Results

January 1977 - June 1980

	1977 Jan-June	1977 July-Dec	1978 Jan-June	1978 July-Dec	1979 Jan-June	1979 July-Dec	1980 Jan-June
Persons Screened (Millions)	243.1	265.7	275.2	304.5	285.7	306.8	289.9
Weapons Detected							
Firearms	874	1160	962	1096	990	1171	1002
(1) Handguns	745	985	836	991	902	1060	940
(2) Long Guns	24	40	34	33	29	26	17
(3) Other	105	135	92	72	59	85	45
Explosive/Incendiary Devices	2	3	1	2	3	0	1
Persons Arrested							
For Carriage of Firearms/Explosives	370	440	404	492	469	591	520
For Giving False Information	23	21	31	33	21	26	11
Other Offenses Detected							
Narcotics	156	126	151	99	73	128	75
Illegal Aliens	474	483	723	605	845	844	938
Other	151	242	706	69	40	109	107

Source: Reports Of Passenger Screening Activities At U.S. Airports

As Of: 7/1/80

EXHIBIT 9

Civil Aviation Security Weapon Detection Devices

Type	Basic Characteristics	Manufacturer	Units
Walk-Thru Active	Creates and Measures Deviations in Own Electric Field. Detects.	Rens	645
	Both Ferrous and Non-Ferrous Metals.	Infinetics	326
		Metor	77
		Westinghouse	28
		Sperry Rand	11
		Solco	21
	Sentrie	199	
Hand-Held Active	Comparable to Walk-Thru Active. Limited Effective Range.	Philips	4
		Total	1311
		Rens	230
		Federal	250
		Solco	720
Total		1200	
Total — All Types — 2511			

As of: 7/1/80

Civil Aviation Security X-Ray Baggage Inspection Systems

Characteristics:

Small Dose X-Ray, Intensify Image Electron-
ically, Display on TV

Operating Criteria:

Meet FDA/BRH and State Health Standards
Distinguish 24 Gauge Wire

Limitations:

Dependent on Diligence of Operators,
Demands Constant Attention and Ability to
Quickly Recognize Dangerous Articles

Systems In Use:

Astrophysics	352
Phillips Electronic Instruments	119
Bendix	116
American Science & Engineering	59
New Security Concepts	31
Dennis & Miller	24
Total:	<u>701</u>

Civil Aviation Security Regulatory Impact

	<u>U.S.</u>	<u>FOREIGN</u>	<u>TOTAL</u>
Carriers	99*	96**	195
Airports	399	270	669
Aircraft	2,840	—	—
Flights Per Day	14,890	560	15,450
Screening Activity Per Day:			
Persons	1,593,000	98,000	1,691,000
Carry-On Items	1,298,000	73,000	1,371,000

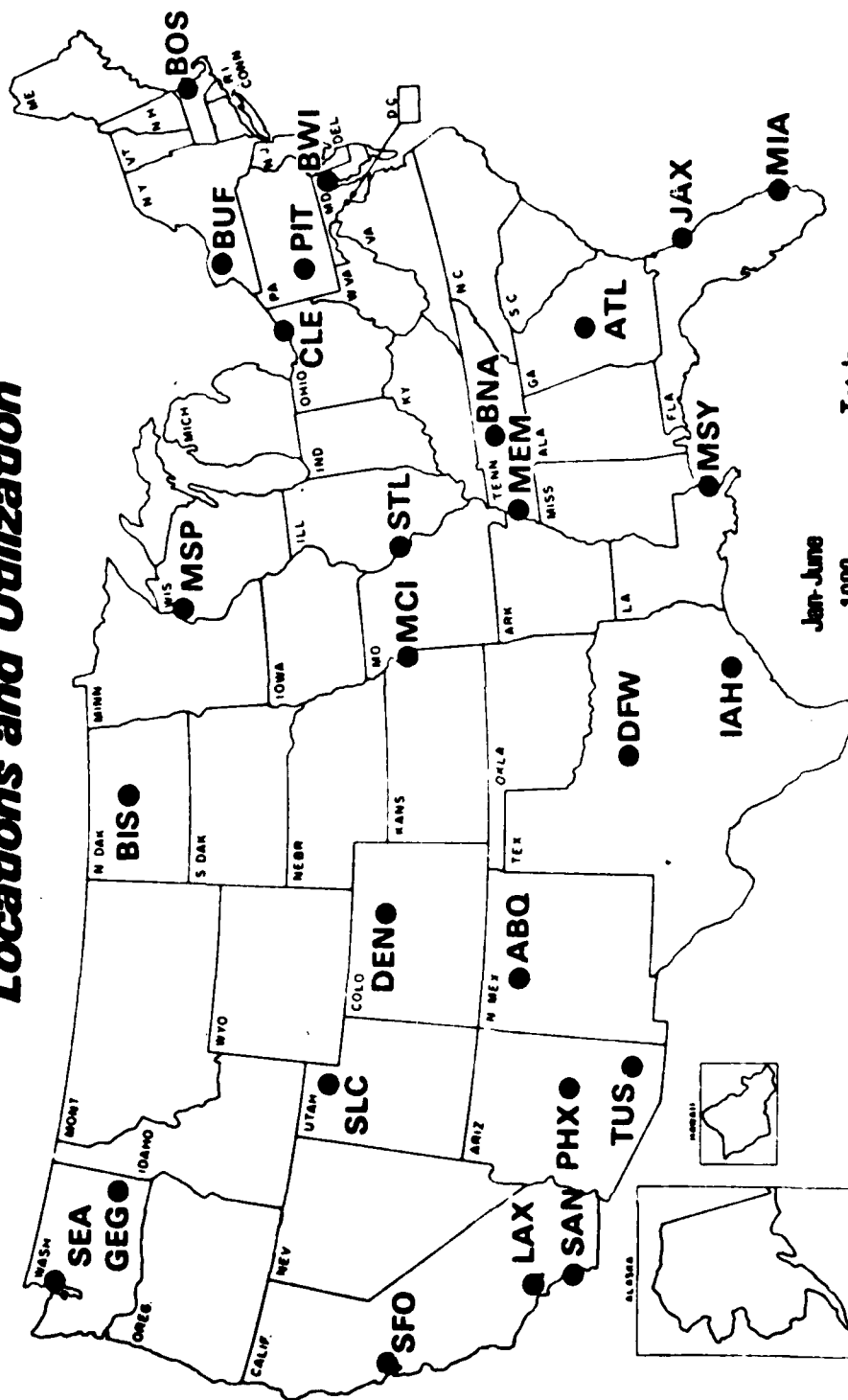
* Includes 48 Scheduled Air Carriers and 51 Commuter Airlines Which Operate Under Approved Security Programs

** Includes 77 Scheduled and 19 Charter Operators

Civil Aviation Security Basic Policies

<u>PROGRAM ELEMENT</u>	<u>RESPONSIBILITY</u>	<u>ACTIONS</u>
AIR CARRIERS	SECURE TRAVEL	• MAINTAIN RESPONSIVE SECURITY PROGRAMS • SCREEN PASSENGERS, CARRY-ON ITEMS • SECURE BAGGAGE, CARGO PROCEDURES • PROTECT AIRCRAFT
AIRPORTS	SECURE OPERATING ENVIRONMENT	• MAINTAIN RESPONSIVE SECURITY PROGRAMS • PROTECT AIR OPERATIONS AREA • PROVIDE LAW ENFORCEMENT SUPPORT
FAA	LEADERSHIP	• IDENTIFY AND ANALYZE THREAT • PRESCRIBE SECURITY REQUIREMENTS • COORDINATE SECURITY OPERATIONS • PROVIDE TECHNICAL ASSISTANCE • ENFORCE REGULATIONS
USERS	PROGRAM COSTS	• SECURITY FUNDED AS OPERATING COST OF SYSTEM

FAA Sponsored Explosive Detection K9 Teams **Locations and Utilization**



	Jan-June 1980	Totals
Aircraft & Airport Searches	593	4549
Explosive Items Detected	0	26
Missions in Local Communities	633	5277
Explosive Items Detected	6	120
Total Explosive Items Detected	6	146

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Department of Transportation
Federal Aviation Administration

Civil Aviation Security Research and Development Checked Baggage Explosive Detection

X-Ray Absorption

One Unit Sent to FAA Technical Center for Testing
One Unit Sent to Dulles International Airport for Operational Evaluation Starting July 1980

Thermal Neutron Activation

Prototype Evaluated at Two Airports
Data Being Analyzed
Further Tests Contemplated in Winter 1980

Nuclear Magnetic Resonance

Data Analysis of First Airport Evaluation Complete - Results Encouraging
Further Tests with Checked Baggage and Air Cargo Scheduled for July 1980
At Dallas-Fort Worth International Airport

Vapor Characterization

Identification of Unique Vapors of Explosives
Final Report Due September 1980

Biological

Use of Small Mammals (Gerbils, Rats) to Detect Explosive Vapors
Proven that Gerbils can be Trained to Detect Odors and Perform Specific Functions
Sensitivity Test Will be Made Summer/Fall 1980

Walk by Explosive Detector

System Being Developed by Transportation Systems Center
Test and Evaluation of Prototype Expected Spring 1981

EXHIBIT 15

As of: 7/1/80

Civil Aviation Security Foreign Technical Assistance

Actions	Countries Participating
● FAA Technical Assistance Team Visits	28
● Aviation/Law Enforcement Officials Briefings	69
● Training Programs:	
— Aviation Security Course (Students)	74 (313)
— Antihijacking Tactics	27
— Ground Explosive Security	68
— Inflight Explosive Security	91
— Passenger Screening	27
● Analytical Studies Distribution	17

As of: 7/1/80

Department of Transportation
Federal Aviation Administration

Civil Aviation Security Compliance and Enforcement Actions

U.S. AIR CARRIERS	1973	1974	1975	1976	1977	1978	1979	1980
Warnings	—	—	329	270	276	266	283	104
Letters of Correction	152	124	128	110	109	145	102	45
Non Enforcement Actions	66	36	63	108	61	65	49	18
Civil Penalties (Amount)	43 (\$42,850)	58 (\$75,750)	56 (\$45,300)	84 (\$46,800)	43 (\$66,700)	30 (\$23,300)	26 (\$18,075)	22 (\$13,950)
Investigations Closed	261	218	576	572	489	506	460	189
Investigations Pending	—	—	—	—	61	48	80	91

FOREIGN AIR CARRIERS

Warnings	NO Regulation Applicable	0	0	0	0	0	14	4
Letters of Correction	—	—	0	12	11	11	6	4
Non Enforcement Actions	—	—	3	2	2	3	3	15
Civil Penalties (Amount)	—	—	0	0	0	0	0	0
Investigations Closed	—	—	3	14	13	14	23	23
Investigations Pending	—	—	—	—	2	12	15	5

AIRPORTS

Warnings Issued	—	—	125	141	137	168	80	41
Letters of Correction	40	68	83	68	53	65	53	60
Non Enforcement Actions	11	14	7	18	23	20	12	15
Civil Penalties (Amount)	1 (\$1,000)	14 (\$6,750)	16 (\$14,450)	19 (\$10,400)	12 (\$3,500)	11 (\$7,500)	19 (\$15,150)	5 (\$ 8,500)
Investigations Closed	52	96	231	248	225	284	164	121
Investigations Pending	—	—	—	—	23	29	69	48

INDIVIDUALS

Administrative Corrections	NO Regulation Applicable	—	1	27	81	68	617	714
Non Enforcement Actions	—	—	2	41	24	18	87	83
Civil Penalties (Amount)	—	—	1 (\$25)	1 (\$350)	4 (\$2050)	9 (\$1,925)	70 (\$11,300)	59 (\$ 9,685)
Investigations Closed	—	—	4	69	109	95	774	856
Investigations Pending	—	—	—	—	14	45	392	439

As Of: 7/1/80

EXHIBIT 17

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