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Crimes against aircraft: Research findings and public policy perspectives

Darwish, Abdelkarim A., Ph.D.

University of Illinois at Chicago, 1994

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CRIMES AGAINST AIRCRAFT:
RESEARCH FINDINGS AND PUBLIC POLICY PERSPECTIVES

By

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DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in Public Policy Analysis-Political Science
in the Graduate College of the
University of Illinois at Chicago, 1994

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THE UNIVERSITY OF ILLINOIS AT CHICAGO
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This dissertation is dedicated to my wife (Nashwa).

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ABD

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SUMMARY

Crimes against and on board aircraft began as early as 1930 and have continued into the 1990s. The international community and individual countries have been working for a long time to provide measures for the security of aircraft. A number of multi-lateral and bi-lateral treaties and security measures have been implemented.

The Chicago Convention of 1944, the Tokyo Convention of 1963, the Hague Convention of 1970, and the Montreal Convention of 1971 provide a legal framework which serve as a deterrent policy for crimes against aircraft.

Although countries have been somewhat successful in forming legal policy to combat crimes against aircraft, there continue to be numerous policy problems associated with the implementation of a formal universal legal policy in the areas of extradition and prosecution. For instance, the different penalties for hijacking imposed by different countries continue to create policy problems between the countries.

In the area of airport and aircraft security, countries have utilized passenger screening through metal detectors since 1973. Results of this study indicate that

SUMMARY (continued)

these techniques have reduced hijacking and bombing significantly. However, this research also supports a preliminary conclusion that "target hardening" at airports has increased the probability of missile attacks against aircraft. It remains to be seen whether or not airline security against bombing will significantly increase missile attacks.

CHAPTER I
INTRODUCTION

A. The Problem

In the global community within which we live, the primary linkages between people are accomplished through communications technology and air transportation. The increase in airline travel over the past several decades has been nothing less than phenomenal, as has the design technology and carrier capacity of aircraft.

With this significant advance in our ability to increase face-to-face communication through travel has also come new forms of criminal activity. Criminal attacks against aircraft and airline facilities, particularly in the form of violence or the threat of violence, have been a perplexing problem for international bodies and countries for some time. The primary focus of the study is on specific types of criminal activity, including hijacking, bombing, and assaults on aircraft and airports. Within this context such attacks may be viewed as being: terrorism-related; a means to achieve a traditional criminal gain, such as extortion; a means to "escape" from a country; or an act by a mentally deranged individual.

Implications for the development of public policy related to airline security, which includes political, legal, and operational initiatives, is the subject of this research. Political initiatives, including definitional issues related to terrorism and the "political offenses exception" are addressed.¹

Legal policy in the form of conventions, which cover crimes against aircraft are addressed, as are problems facing the implementations of these conventions. A case study analysis is used to analyze the impact of conventions.

The study also addresses the effects of using metal detectors as a security initiative at airports. Some people argue that using metal detectors at airports decreases hijackings. However, others argue that it has also produced the unintended consequence of shifting criminal activities from hijacking to bombings, and then missile attacks. In order to explain this shift two questions must be addressed. First, did increasing security at airports reduce hijacking and, second, what is the relationship between hijacking and other crimes such as bombing, missile attacks, and attacks at

¹ The word offenses is mentioned in the convention as offenses, for the sake of consistency, it will be written as offenses in this study.

airports? These questions are addressed through regression and correlation analysis.

Airline security policies and practices, such as use of metal detectors at airports, are based on the belief that they serve as a deterrent. This study examines attacks on aircraft and airports, specifically hijacking, over time, and the deterrent effects of metal detectors, and of criminal prosecution in reducing the threat.

Related to this issue is what might be termed the displacement impact of a particular deterrent approach. For example, if hijackings decrease will there be an increase in bombings, or missile attacks? Threats vary and countermeasures must be adaptable to keep pace with changes in the threat level or they type of threat. This study explores the relationship between these three types of attacks.

Additionally, a descriptive analysis of 208 hijacking incidents provides additional information relative to specific characteristics of hijacking.

Of particular interest to public policy leaders are the legal and definitional issues which provide the framework on which public policy is formed. The development of

international agreements and conventions are critical when it comes to airlines, because a large percentage of the attacks involve multiple jurisdictions. The historical development of an international legal framework is an integral part of the study.

Air transportation is protected by the domestic laws of individual countries as well as international agreements between countries through international conventions. (Examples include the Geneva Convention in 1958, the Tokyo Convention in 1963, the Hague Convention in 1970, and the Montreal Convention in 1971.) Within a country domestic laws generally prevail, and there are few differences with regard to the definition of a crime, although punishments may vary. Violations of international law, treaties and conventions may constitute a universal crime affecting the interests of the State registering the aircraft, the location or locations in which the act took place, and the public interests of the international community.²

As nations move toward a global economy and the development of international markets, the number of air

² Universality principle gives all countries the right to arrest and prosecute international criminals such as pirates on the high seas (outside their territorial boundaries).

travelers is expected to increase significantly. A study done by the International Air Transport Association (IATA) on behalf of its 207 member airlines reported that approximately 290 million passengers were carried on international routes in 1992, an increase of 10.4 percent over 1991. By 1996 total international passenger numbers are expected to be 43 percent higher than in 1991.

In 1991, the demand for air transportation was negatively affected by the recession and by the Gulf War. Now that the economy is rebounding and the Gulf War is over, a growing demand for travel service makes issues of aircraft safety and crimes against aircraft increasingly important (Reuter, BC-Airlines-IATA 09-24 0248).

Paul Wilkinson, an expert on international terrorism, states that "The Gulf War of 1991 demonstrated that if people develop a real fear of flying, and no longer trust the will and capability of governments and aviation authorities to deter and prevent terrorist attacks, they will desert the airways in droves. In the first week of the war the Association of European Airlines claimed that its members had lost 25% of their revenues. Airline Business estimated that the industry as a whole was losing approximately \$1500 million per month in the immediate aftermath of the War" (Wilkinson, 1993).

One of the more troubling aspects of crimes involving aircraft has been the number of incidents involving criminal acts against innocent persons. In the ten year period from 1980 to 1989 there were 695 hostile actions against civil aviation. These incidents resulted in 2,990 deaths and 1,611 injuries (Morris, 1991).

The magnitude of casualties to innocent persons is not fully appreciated if a government calculates only the value of human life in monetary terms. Many governments use economic formulas to calculate the financial value of a statistical human life. These formulas play a key role in how governments respond to specific problems such as aircraft hijacking. For example, the Federal Aviation Administration (FAA) estimates the value of a statistical life as \$826,666. The value of a statistical injury is estimated at \$60,000 if it is serious, and \$22,666 for a minor injury. The aircraft replacement cost for a B-747 is between 125 and 175 million dollars (McGuire, 1990).

Hostile actions against aircraft may also cause political instability in a country. If the government appears ineffective in curbing these acts, or if the government overreacts and appears repressive, the political consequences can prove to be significant. Government, as a rational actor, must determine what policies

considerations will prove most effective to thwart such hostile actions.

Liberal democratic governments and publics have other powerful reasons, in addition to the principle of protecting the lives of the innocent, which should spur them to help create effective aviation security. All democratic societies have a vital interest in the maintenance of lawful authority and the rule of law. By resorting to the bomb and the bullet terrorists brutally defy the authority of the law. It would be absurd to argue that individual acts of aviation terrorism threaten the survival of the state; yet it would also be foolish to deny that any democratic state has a vital interest in the defeat and eradication of groups that commit major crimes such as terrorism, and that weakness in responding to terrorist attacks may lead to the dangerous policy of making major concessions to terrorists and may encourage other terrorist groups to use similar tactics. As part of democratic society the civil aviation industry shares a common interest in the suppression of terrorism (Wilkinson, 1993, p. 166).

The threat of attacks on aircraft is a continuing source of concern to governments. These acts have numerous side effects which impact governments in a very direct way, not the least of which is economically. One need only look at the Gulf War to assess the economics of fear that the threat of terrorism evokes, and how this threat affects policymakers in the airlines industry. During the Gulf War, for example, many experts felt that airlines were a high probability target. Although no incidents

were actually recorded (FBI report, 1990), the airline industry lost millions of dollars during this period.

B. The Need for Policy Analysis

Aircraft hijacking has been a problem which individual countries, as well as the international community, have been trying to solve for some time. Where there has been some success through the use of technology and improved screening procedures, new threats have followed, such as aircraft bombing, and more recently the use of ground-to-air missiles, as well as attacks at airports. These problems require the attention of governmental policymakers:

The nations of the world today face many troublesome problems-some very new and others that we have attempted and are still attempting to solve.

..., the causes of many of society's most urgent problems are inadequately understood and, until they are, the solutions proposed may well turn out to be not only inadequate but possibly in the wrong direction (Quade, 1989, p. 5).

This study utilizes an applied research approach to study crimes against aircraft and airports. The primary focus is on understanding hijacking and efforts to combat this phenomenon. This approach explores the various components of the hijacking problem. Because there has been some

success in efforts to reduce hijacking, the study also addresses other problems, such as bombing, missile attacks, and attacks at airports in order to better understand the hijacking issue from a broader policy perspective. As Quade notes

"policy analysis is a form of applied research carried out to acquire a deeper understanding of sociotechnical issues and to bring about better solutions. Attempting to bring modern science and technology to bear on society's problems, policy analysis searches for feasible courses of action, generating information and marshaling evidence of the benefits and other consequences that would follow their adoption and implementation, in order to help the policy-maker choose the most advantageous action".

The airline industry is a highly competitive business domestically and internationally which drives airline companies to operate in the most efficient ways possible. Airline companies also try to offer comfortable and safe air transportation. Efficiency, comfort, and safety are not homogeneous components which work in harmony all the time. For policymakers, it is difficult to make a trade-off among those components, and to decide which alternative will achieve an acceptable level of security in the most efficient way.

Better aviation security policy begins with a better understanding of the dangers that an aircraft may encounter. One way of reaching a better understanding is

to better define the dangers facing aircraft and the aircraft industry. This can be carried out by identifying past incidents to analyze the dangers, by developing a model based on the types of threats which are likely to exist in the future, and by reviewing procedures which are utilized to combat crimes against aircraft and facilities.

In order to assess the dangers facing aircraft, a database including the following information was constructed: hijackings per year from 1980 to 1990, hijackings per month from 1980 to 1990, number of hijackers, weapons used by hijackers, ways of resolving hijackings, violence on board aircraft, motives of hijackers, individual (non-group) and group hijackings. Generally, crime data take two forms: 1) aggregate data and 2) descriptive data. These types of data allow analysts to conduct research which is both statistical and descriptive. This is particularly important with regard to crimes against aircraft because in many cases the cases in a particular category may be quite different, and the numbers relatively small.

Descriptive analysis allows the analysts to develop better insight into the details and characteristics of various types of incidents.

The data needed to analyze a problem area or system are defined quite directly by the model that is designed to handle the prediction problem. Therefore it is useful to specify the model fairly early; it will clearly and unambiguously indicate the sort of data needed and can thus lead to a more efficient organization of what can be an extremely laborious job. In fact, if it turns out the model as originally specified demands data that cannot be furnished, some reworking of the model to accommodate what is available may be sensible (Quade, 1989, p. 8).

For example, strategies designed to prevent terrorist incidents are likely to be more successful when coupled with general intelligence estimates of individual groups, their capabilities and strategic approaches. This involves a high degree of cooperation between airport security officials and criminal intelligence organizations, such as INTERPOL. The hijacking of aircraft by persons attempting to flee a country, or by deranged individuals, on the other hand, is perhaps best prevented by "target hardening" approaches, such as metal detectors and passenger screening.

Chapter II includes a review of the literature and an historical analysis of crimes against aircraft, as well as the development of policy, legal approaches and operational strategies aimed at prevention.

Chapter III embodies the legal and operational approaches which have been developed by international bodies to

combat crimes against aircraft. Chapter IV provides a description of the research methodology. Chapter V addresses the results of aggregate and descriptive data analysis. Chapter VI summarizes the research.

CHAPTER II
LITERATURE REVIEW

The following literature review addresses the historical precedents related to airline security and the literature related to deterrence theory.

A. Historical Precedents

Crimes against international air transportation have occurred over a period of six decades. International conventions provide the legal framework for countries to work together in addressing the phenomenon.

In 1944, the Chicago Convention provided general guidelines for countries to facilitate global air transportation. As McWhinney stated:

Under the general rules of international law which find particular expression in Articles 25 and 37 of the Chicago Convention of 1944, States are required to render assistance to aircraft in distress in their territory and to permit, subject to control by their own authorities, the owners of the aircraft or authorities of the States in which the aircraft is registered to provide such measures of assistance as may be necessitated by the circumstances....

During the Chicago Convention, the International Civil Aviation Organization (ICAO) was established and attached to the United Nation. ICAO has assumed a principal role in establishing and developing a legal framework to combat crimes against aircraft.

Laws involving crimes against aircraft have developed over time with changes in form and substance. In 1948, a man assaulted three persons on board a United States registered aircraft. The aircraft was flying over the high seas in route from San Juan, Puerto Rico, to New York City. When the offender was brought to trial in a United States court, his trial was dismissed because it was determined that the United States courts did not have any basis for jurisdiction over the offense, because the assault was committed on an aircraft in flight over the high seas.

The United States federal government reacted by adopting a law concerning Crimes of Violence over the High Seas in American Registered Aircraft.

In 1959, many countries recognized the problem of the legal status of aircraft. These countries put this legal subject on the agenda of the International Civil Aviation

Organization. The legal committee of ICAO found that there was a disparity of national laws relating to offenses on board aircraft. The committee recommended that the international community establish an international convention to cover offenses which take place on board aircraft. A major aim of the proposed convention was to establish an acceptable basis for jurisdiction of crimes which take place on board aircraft. This jurisdictional agreement would allow countries to trail any person who commits a crime on board an aircraft.

A draft convention on the subject prepared by the committee was considered at the 1963 Tokyo conference, which adopted and opened for signature the "Convention on Offenses and Certain Other Acts Committed on Board Aircraft".³

The Tokyo Convention in 1963 was established mainly to cover offenses on board aircraft other than hijacking. It

³ The Tokyo Convention went into effect on December 4, 1969. On September 5, 1969, the United States deposited with the International Civil Aviation Organization, the official notification of its ratification of the Convention. See the statement of the official representative of the United States on the ratification (American Journal of International Law, October 1969). The United States Law 87-197, enacted September 1966, made piracy a criminal act.

embodied few provisions concerning hijacking because at the time this was not viewed as a serious problem. For example, there were six hijackings in 1961, six hijackings in 1962 and only one hijacking in 1963.⁴ (See Table I)

The Convention "recognizes the offense of 'unlawful seizure of aircraft' in flight and charges the contracting states with the duty of restoring such aircraft and cargo to the rightful owners and facilitating resumption of the international airline interrupted flight. The offense is not made a crime under international law; its definition is to be determined by the municipal law of the contracting states". The Convention was limited to restoration of property and resumption of flight and not upon prosecution of the offender (Evans, 1969)".

The increase in hijacking from one case to three cases in 1966, then from three cases to six cases in 1967 was not considered a serious problem since there were six hijackings in 1960. However, with an increase of six to

⁴ In December 1968, the Tokyo Convention came into force.

TABLE I
 WORLDWIDE HIJACKING INCIDENTS 1930-1992

YEAR	HIJ	YEAR	HIJ	YEAR	HIJ	YEAR	HIJ	YEAR	HIJ
1930	1	1961	6	1970	56	1979	26	1988	12
1947	1	1962	1	1971	58	1980	42	1989	16
1948	6	1963	1	1972	62	1981	32	1990	40*
1949	3	1964	1	1973	22	1982	32	1991	24**
1950	3	1965	1	1974	25	1983	34	1992	12
1953	1	1966	3	1975	20	1984	28		
1958	3	1967	6	1976	17	1985	36		
1959	3	1968	30	1977	32	1986	20		
1960	6	1969	70	1978	28	1987	15		

* THERE WERE 26 HIJACKINGS OF SOVIET REGISTERED AIRCRAFT IN 1990.

** THERE WERE 10 HIJACKINGS OF SOVIET REGISTERED AIRCRAFT IN 1991.

30 hijacking cases in 1968, and from 30 to 70 cases in 1969, the international community pressed for an international convention to suppress the unlawful seizure of aircraft (hijacking).

The increased number of hijackings in 1967 and early 1968 led the ICAO Assembly in September 1968 to call for a convention devoted to the suppression of hijacking. In December 1970, the international aviation community met at The Hague in a diplomatic conference under ICAO auspices. That meeting was able to open for signature the Convention for the Suppression of Unlawful Seizure of Aircraft (Aggarwala et al., 1971).

After the hijacking problem had been addressed by two international conventions, the Tokyo Convention of 1963 and the Hague Convention of 1970, aircraft were targeted for other forms of violent acts such as destruction of aircraft on the ground and explosion of aircraft in the air. For example, in 1969 there were four bombings of aircraft and in 1970 there were nine bombings of aircraft. The international community in the form of the ICAO Assembly led the effort to have an international convention to address the new dangers. As a result of this effort, the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation was

opened for signature by a special diplomatic conference held in Montreal in September 1971 (Aggarwala et al., 1971).

Crimes on board aircraft or crimes against aircraft began to take new forms over the years including piracy, unlawful seizure, bombing, and missile attacks. Conventions on piracy, which have a long history related to ocean transport, were modified to include aircraft. These were further supplemented with conventions aimed at hijacking, sabotage, missile attacks and offenses committed at airports.

1. Piracy

The Geneva Convention of 1958 article 15 defines piracy as:

(1) Any illegal acts of violence, detention or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:

(a) On the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;

(b) Against a ship, aircraft, persons or property, in a place outside the jurisdiction of any State (Geneva Convention, 1958).

In light of the Geneva Convention, then, "piracy" has the following elements:

- 1) An act of violence, detention or any act of depredation.
- 2) The act is committed against another ship or aircraft, or against persons or property on board such ship or aircraft.
- 3) The act is committed by crew or passengers to achieve private ends.

2. The Unlawful Seizure of Aircraft
(Hijacking/Skyjacking)

Hijacking and skyjacking are popular terms but they are not used as legal terms in the international conventions which were established for combating crimes against aircraft. For purposes of this study hijacking and/or skyjacking are operationally defined as referring to the unlawful seizure of aircraft or the illegal diversion of aircraft by a person(s) on board.

The Tokyo Convention did not define specific offenses. It followed this approach in order to encompass a wide range of offenses and at the same time to include types of illegal acts which may occur in the future.

TABLE II
EXPLOSIONS ABOARD AIRCRAFT PER YEAR 1949-1992

YEAR	N	YEAR	N	YEAR	N	YEAR	N
1949	2	1961	0	1973	5	1985	7
1950	1	1962	1	1974	6	1986	3
1951	0	1963	0	1975	4	1987	1
1952	1	1964	1	1976	5	1988	2
1953	0	1965	1	1977	4	1989	2
1954	0	1966	1	1978	2	1990	0
1955	2	1967	4	1979	2	1991	1
1956	2	1968	1	1980	1	1992	0
1957	2	1969	4	1981	3		
1958	0	1970	9	1982	2		
1959	1	1971	3	1983	2		
1960	2	1972	7	1984	3		

N = NUMBER OF EXPLOSIONS ON BOARD AIRCRAFT.

Chapter IV of the Tokyo Convention is titled "Unlawful Seizure of Aircraft". The chapter in Article 11 paragraph 1 states that "hijacking" occurs:

When a person on board has unlawfully committed by force or threat thereof an act of interference, seizure or other wrongful exercise of control of an aircraft in flight or when such an act is about to be committed... (Tokyo Convention, 1963).

The Hague Convention of 1970 was established to address hijacking as a specific offense. Therefore, it defined only the offense of unlawful seizure of aircraft. The Convention begins in Article 1 with a definition of the offence of unlawful seizure of aircraft (hijacking):

Any person who on board an aircraft in flight:
a) unlawfully, by force or threat thereof, or by any other form of intimidation, seizes, or exercises control of, that aircraft, or attempts to perform any such act, or
b) is an accomplice of a person who performs or attempts to perform any such act commits an offence 'hereinafter referred to as the offense' (Hague Convention, 1970).

The Tokyo Convention defined the basic elements of the offense of "unlawful seizure of aircraft." The drafters of the Hague Convention made some further refinements.

In article 1, paragraph (a) the framers added a reference to "any other form of intimidation." This phrase was a broad term which would cover other forms of intimidation, such as blackmailing of the flight crew.

Paragraph (b) of the same article did not differentiate between an offender and an accomplice.

Based on the Tokyo and Hague conventions, "hijacking" has the following elements:

- a) An unlawful act of interference;
- b) With the use of force or threatened use of force;
- c) Seizure or wrongful control of an aircraft;
- d) By a preparator(s) on board the aircraft;
- e) While the aircraft is in flight.

3. Aircraft Sabotage

The main purpose of the Montreal Convention in 1971 was to provide for the protection and safety of passengers and aircraft against acts of sabotage. The Convention in Articles 1 and 2 contained legal protection for persons on board aircraft. In addition to this, it covered protection of the aircraft itself, protection of air navigation facilities, and made illegal the communication

of false information which endangers the safety of aircraft.

The convention defined offenses concerned with aircraft safety:

1. Any person commits an offense if he unlawfully and intentionally:

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.

2. Any person also commits an offense if he:

a) attempts to commit any of the offenses mentioned in paragraph 1 of this Article; or

b) is an accomplice of a person who commits or attempts to commit any such offense (Montreal Convention, 1971).

The introductory language of Article 1 indicates that the acts covered by subparagraphs (a) to (e) are considered offenses according to the convention only if these acts are unlawful and intentional. These two elements would also apply to attempts and complicity covered by paragraph 2.

Subparagraph (b) was intended to include acts directed against the aircraft itself as distinct from persons on board. The phrase "an aircraft in service" was broader than the "in flight" phrase, which meant that the in service phrase would cover a more extended period of time than that covered by the expression "in flight". Subparagraph (c) includes the phrase "by any means whatsoever"; this phrase is broad enough to cover a range of offenses. For example, it can cover the placing of explosives on board aircraft, whether carried on board by the offender or by an accomplice who sent explosives on board through air cargo, or attached a device to the outside of the aircraft before it took off.

4. Missile attacks against aircraft

After adoption of the Montreal Convention of 1971, which provided aircraft protection against acts of sabotage, missile attacks against aircraft became a problem in the latter half of the 1980s. Legal experts asked if the convention would encompass missile attacks against aircraft. The answer is yes, because the word "violence," used in Article 1 subparagraph (a), could be interpreted to include a missile attack. The sub-paragraph and the opening language of Article 1 could be used to include a person performing an act of violence who is not actually on board the aircraft. Thus, the Convention does apply to a person who is outside the aircraft and fires a gun or missile at an aircraft.

The most important general lesson we must all learn from the recent history of aviation terrorism is never again to allow the terrorist to get so far ahead of the world's airport security system. We should already be anticipating the tactics that the terrorists are likely to use once the method of sabotage bombing has been blocked. For example, we should already be devising ways of preventing terrorists from obtaining and using surface to air missiles against civil aviation (Wilkinson, 1993, p. 168).

5. Attacks against airports

The Tokyo Convention of 1963, the Hague Convention of 1970, and the Montreal Convention of 1971 focused on offenses against aircraft. There was a need to provide protection to airports. In Montreal on February 24, 1988, the final text of a protocol to provide protection for airports was presented as a supplementary document to the Montreal Convention of 1971. It stated that "Any person commits an offence if he unlawfully and intentionally, using any device, substance or weapons: a) performs an act of violence against a person at an airport serving international civil aviation which causes or is likely to cause serious injury or death, or b) destroys or seriously damages the facilities of an airport serving international civil aviation or aircraft not in service located thereon or disrupts the services of the airport".⁵

⁵ "The Montreal Protocol of 1988, Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, Supplementary to the Montreal Convention. Parties: There are 17 parties to the Protocol. The United States has signed the Protocol but it is not yet in effect." (The Presidents Report of 1989).

TABLE III

MISSILE ATTACKS AGAINST AIRCRAFT BY YEAR 1985-1993

1978	2	1986	2
1979	1	1987	4
1980	0	1988	5
1981	0	1989	2
1982	0	1990	0
1983	0	1991	5
1984	1	1992	2
1985	0	1993	2

B. Policies related to airline security

With the increase of hijacking as a worldwide problem in the 1960s, and growing public concern, many policies and procedures aimed at combatting hijacking were developed and implemented. Profiling, identification cards, screening passengers, and body searches were implemented in many airports. The policy of fully "screening" all passengers seemed to have a dramatic effect in reducing hijacking incidents (Moore, 1976, Landes, 1978, Cauley and Im, 1988, and Enders and Sandler, 1993).

Hijacking became a significant problem arousing public concern in the United States in the 1960s. The United States government in response to these concerns took the lead in establishing public policy to combat aircraft hijacking. The U.S. implemented a major policy which required screening all passengers by metal detectors to prevent weapons from finding their way on board an aircraft. As Moore stated:

...January 5, 1973, was the day on which 100 percent screening of air passengers and their carry-on baggage was instituted. The result was unforgettable, and only the virtually infinite patience of the travelers made it possible for the planes to get off the ground that first day. Their tolerance revealed that the American traveling public was ready,

willing, and eager to be protected; they have had enough of skyjacking. When the remarks of an FAA official four months later were misinterpreted to imply that the FAA was contemplating relaxation of the stringent security measures instituted in January, the public and newspaper editorials protested strongly, and soon thereafter the FAA announced it would continue the 100 per cent screening indefinitely (Moore, 1976, p. 15).

In addition to security needs, another factor contributed to full implementation of a screening policy in the United States: the development of what is called a sterile concourse design in airports. Sterile concourse design made the passenger screening program even more efficient by creating a check point for a group of gates at one central location.

The sterile concourse proved to be the most attractive, and this method was used in virtually every location in which it could be used. The sterile concourse represented an exceptional cost-saving for both carrier and the airport. Instead of having to bear the cost of sufficient manpower to search passengers at each gate, and having to post a law enforcement officer at each gate, a central screening point established at the throat of a concourse serviced numerous gates. This approach also proved of great value in making possible the later use of X-ray for screening carry-on items, a measure which had initially been ruled as prohibitively costly in view of the numbers that would be required to cover each boarding gate. Once a single unit would be able to service five to ten gates, X-ray became practical (Moore, 1976, p. 31).

Implementation of a screening policy in airports not only suppresses smuggling of weapons which can be used in hijacking but it also combats aircraft sabotage devices, according to The Report of the President's Commission on Aviation Security and Terrorism in August of 1989. Finally, the Report indicates that airport security policy integrates a profiling method with the screening policy; it states that "The FAA has established a 'profile' of a hypothetical passenger who could pose a potential security threat. If a passenger meets the profile, his or her baggage is to be subjected to additional security measures. The profile is based upon known characteristics of a potential bomber" (The President Report, 1989).

C. Hostile actions against aircraft as punishable offenses

The international community has adopted treaties such as the Chicago Treaty in 1944, the Tokyo Treaty in 1963, the Hague Treaty in 1970, and the Montreal Treaty in 1971. These conventions define certain hostile acts as criminal acts, and offer models for countries to follow in establishing national laws. As a result of establishing these conventions many countries passed laws

TABLE IV
 UNITED STATES HIJACKINGS PER YEAR 1960-1992

YEAR	N.	YEAR	N.	YEAR	N.
1961	5	1973	2	1985	2
1962	1	1974	7	1986	4
1963	0	1975	12	1987	4
1964	1	1976	4	1988	2
1965	4	1977	6	1989	2
1966	0	1978	13	1990	3
1967	1	1979	13	1991	1
1968	22	1980	22	1992	0
1969	40	1981	8		
1970	27	1982	10		
1971	27	1983	19		
1972	31	1984	7		

N = NUMBER OF HIJACKINGS.

criminalizing certain acts such as piracy, hijacking, and aircraft sabotage.

The Chicago Convention in 1944 sponsored by the International Civil Aviation Organization was established to organize air traffic and make the airline industry safe. The convention establishes international aviation security standards to protect aircraft from acts of unlawful interference.

In 1963, the Tokyo Convention on Offenses and Certain Other Acts Committed on Board Aircraft, provided the pilot with law enforcement authority aboard an aircraft. For example, article 9 of the convention authorizes

The aircraft commander to deliver to the competent authorities of any contracting state in the territory of which the aircraft lands any person who he has reasonable grounds to believe has committed on board the aircraft an act which, in his opinion is a serious offence according to the penal law of the state of registration of the aircraft (Tokyo Convention, 1963).

The Hague Convention in 1970 provided that prosecution or extradition of a suspected hijacker take place without exceptions. This obligation of countries to prosecute or extradite increases the likelihood that hijackers will be convicted and punished. Also, the convention states that

each contracting state should undertake to make hijacking an offence punishable by severe penalties.

The Montreal Convention of 1971 for the Suppression of Unlawful Acts Against the Safety of Civil Aviation defines certain acts (described previously) as criminal acts. The convention indicates that each contracting state should undertake to make these offenses punishable by severe penalties.

The Montreal Protocol of 1988 for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation addresses acts of violence which occur at airports.⁶

The above conventions and the proposed protocols illustrate the international community's policy-making efforts to make crimes against aircraft prosecutable, extraditable, and punishable by severe penalties. The goals of these policies were not only to address offenses in specific instances, but also to deter would-be offenders.

⁶ Montreal Protocol final text was presented on February 24, 1988.

D. Deterrence and crime prevention policies

In general, most crime prevention strategies adopt two methods of combating crime. The first method is to prevent or stop potential criminal acts. The second method is to apprehend and punish anyone who commits a criminal act. These methods contend that the prevention of crime can be achieved by increasing the probability of apprehension and applying severe punishment. For example, installation of metal detectors at airports increases the probability of detecting and apprehending potential hijackers or saboteurs. Theoretically the high risk of being apprehended decreases the potential threat.

1. Empirical studies of deterrence

Many studies focus on aspects of deterrence theory with applications on various modes of crimes. These studies support the following conclusions: increasing certainty and the severity of punishment reduced the rate of homicide in the United States (Gibbs, 1968). The effect of severity was greater than that of certainty (Dean and Cushing, 1971). There were negative correlations between certainty of imprisonment and total felonies (Tittle, 1969). Increasing certainty of punishment decreased homicide, robbery, assault, burglary, larceny and auto-

theft (Chiricos et al., 1970). Certainty appeared to have an independent effect separate from severity of punishment. Effects of severity decreased as certainty of punishment decreased, so it is better for policy to concentrate on increasing certainty to be more effective (Antunes and Lee, 1973).

In analyzing seven USA index felonies, the combined effects of certainty and severity of punishment were not substantially greater than those of certainty alone except for one felony (Baily et al., 1974). Five index felonies varied inversely with certainty of arrest and with certainty of imprisonment. Crimes against persons varied inversely more with certainty of imprisonment than with certainty of arrest, whereas the reverse is true for crimes against property (Logan, 1975). There was some support for certainty and crime being inversely related, but not for severity and crime being inversely related (Beutel, 1957).

Increasing the number of police on patrol decreased the number of robberies in New York City subways (Chaiken et al., 1974). Also, increasing the number of police on patrol decreased the number of outdoor felonies in the Twentieth Precinct of New York (Press, 1971). Increasing the certainty and severity of punishment for drunk

driving is effective in reducing drunk driving (Ross, 1977). Increasing the mandatory punishment for carrying a gun illegally in Massachusetts reduced the use of guns in violent crime (Pierce and Bowers 1979).

Increased penalties or enhanced enforcement have improved compliance with child-support laws (Lempert, 1982). Enhanced enforcement of law decreased spouse abuse (Sherman and Berk, 1984). Improving enforcement and increasing penalties reduced accidents and deaths from drunk driving (Ross et. al, 1982). Increasing penalties and enhancing enforcement also increased the number of people wearing seat belts (Waston, 1986).

Severity of penalty influenced offender decision-making in combination with anticipated gain or perceived risk. Increasing risks of being arrested and severity of penalties reduced burglaries (Decker et al., 1993).⁷

Generally, these studies support the hypothesis that two factors lead a criminal to perceive a greater risk of punishment. These factors are: first, certainty, or a high probability of being arrested and convicted, second, the severity or harshness of the punishment. Certainty

⁷ Decker, Scott., Wright, Richard., and Logie, Robert. Perceptual Deterrence Among Active Residential Burglars: A Research Note, *Criminology*, Volume 31, N. 1, 1993.

and severity of punishment can each have an individual effect on crime prevention; but there is a greater impact when certainty and severity are combined.

2. Theoretical bases

Deterrence as a concept is based on the basic assumption that individuals are rational actors. Rationality is about benefit maximizing behavior that takes place against constraints. This means that individuals as rational actors pursue their maximizing goals by making the best choices they can (Welch, 1992). Rationalists consider potential criminals as rational decision-makers faced with constraints and uncertainty in their decision making process, which is the underlying concept of deterrence theory (Cook, 1980). The explanation of governmental actions follows the same pattern of the rational model. So, an analyst can say criminals and governmental officials are engaged in a "game" where criminals try to maximize their illegitimate goals through the "least expensive" (apprehension and punishment) approaches and governmental policy makers try to prevent crimes by increasing the probability of apprehension and creating a punishment measure which will serve as a deterrent.

In 1968, Becker developed a model for participating in illegitimate activities. His theory holds that when other variables are held constant, an increase in the person's probability of conviction would decrease the number of offenses he or she commits. Also, changing the probability of conviction (certainty) has a greater effect on the number of offenses than a change in punishment (severity).

In 1973, Ehrlich attempted to formulate a more comprehensive model of the decision to engage in unlawful activities, testing it against available empirical evidence. In this study he tested Becker's theory. He found that the rate of specific felonies was positively related to estimates of relative gains, and negatively related to estimates of costs associated with criminal activity.

In 1978, Landes used ordinary least squares (OLS) regression techniques to assess the effectiveness of metal detectors, sky marshals, stiffer penalties, and intelligence profiles on skyjackings originating in the United States in the late 1960s and early 1970s. The main question in this study was to determine what accounted for the dramatic reduction in U.S. hijacking after 1972. The study concluded that increases in the probability of

apprehension, the conditional probability of incarceration, and the sentence (punishment) were associated with significant reductions in aircraft hijackings from 1961 to 1976. Also, a mandatory screening program (installation of metal detectors in airports) was highly effective in terms of the number of hijackings prevented.

Landes' findings are supported by utilizing hijacking data from 1960 to 1976. Also, Landes' regression model tests each explanatory factor separately; that method does not control for the effects of punishment in testing the effects of mandatory screening at airports.

3. Deterrence related to airline security

The present study utilizes data from 1964 to 1984, which makes it possible to test Landes' findings and learn if they are supported by the new data or not. The study includes three regression models: the first model tests the effects of metal detectors; the second model tests the effects of punishment on hijacking; the third model tests the effects of metal detectors on hijacking while controlling for the effects of punishment.

In 1988, Cauley and Im focused on assessing the impact of metal detectors on hijacking. The study concludes that

the installation of metal detectors in airports decreased the number of hijacking in both the short and long run. However, this policy was accompanied by a significant substitution effect (shifting criminal activities to other targets) that offsets, to some extent, the beneficial deterrence derived. Cauley and Im suggest "that an effective counter-terrorist policy must increase the marginal resource cost of all crimes simultaneously".

In 1993, Enders and Sandler found that metal detectors decreased hijackings and increased other types of hostage takings and assassinations.

Enders and Sandler tested the effect of policies on hijacking in relation to hostage taking and assassinations, not in relation to crimes which were committed against aircraft such as bombings and missile attacks. The present study tests the effect of metal detectors on hijacking in relation to aircraft bombing, missile attacks on aircraft, and attacks at airports. It does not test the displacement effect of hostage taking by terrorist groups.

CHAPTER III
RESEARCH DESIGN

Three primary hypotheses are tested which relate to the use of metal detectors as a deterrent, the displacement effect of this strategy, and the impact of metal detectors and prosecution (conviction) as a deterrent.

Some people argue that using metal detectors at airports decreases hijackings. However, others argue that it has also produced the unintended consequence of shifting criminal activities from hijacking to bombings and missile attacks. In order to explain this shift a correlation analysis is utilized. This analysis measures the relationship between hijacking and other crimes such as bombing, missile attacks, and attacks at airports (Hughes, 1993).

The first concern is how to assess the impact of metal detectors on hijacking. Metal detectors were introduced in January of 1973 as a mean of intervention to prevent hijacking. Time series have been used to measure the impacts of policy on various social problems.⁸ The impact

⁸ Time series data is data collected over a period of time. Such data may be collected at regular intervals, such as monthly, quarterly or annually. The data may be quantitative (continued) or qualitative (categorical) (Gujarti, 1988).

of metal detectors can be measured by looking at the hijacking over time.

An interrupted time series model would help assess the impact of metal detectors on hijacking. The purpose of the interrupted time series analysis is to infer whether the policy had any impact. If it did, then one would expect the hijackings after the use of metal detectors to be different from those before it. That is, the hijacking series should show signs of an "interruption" at the time of introducing metal detectors (Cook and Campbell, 1976).⁹

In this analysis, data on U.S. hijacking are utilized. While the use of U.S. data limit the generalization of findings, the data represent the best available information. The use of metal detectors were fully implemented through a federal program in which all U.S. airports were required to adopt. They did not go into effect in all airports around the world at one time, and there are problems related to the accuracy of the data.

⁹ An interrupted time series design requires one experimental group and multiple observations before and after a treatment (Cook and Campbell, 1976).

The study also utilizes multiple regression analysis to measure the impact of using metal detectors and convictions on hijacking. In this analysis, a time series model examines data on convicted airline hijackers in the U.S. Data on convictions in the U.S. were used because available records on worldwide convicted hijackers is inadequate, and one is also faced with the problem of different definitional terms.

Measuring the relationship between hijacking and other crimes against aircraft after introducing metal detectors formed the second component of the study. Zero-order correlation and partial correlation are used to measure the relationships between hijacking, bombing, missile attacks, and attacks at airports.

In order to better understand the hijacking phenomenon a detailed analysis of 208 hijacking cases was undertaken as a means of providing descriptive data about the characteristics of these incidents. Threats vary and the countermeasures must be adopted to keep pace with changes in the type or method of the threat. While, regression analysis will help to explain the relationship between hijacking, increased security, and other crimes, the descriptive analysis of hijackings provides additional information which impacts on security policies.

This chapter includes three sections: A) time series regression analysis, B) correlation analysis, and C) descriptive analysis.

A. Regression analysis design¹⁰

This section includes three main hypotheses. These hypotheses and their related research designs are as following:

1. First hypothesis

Hijackings in United States will decrease significantly after the introduction of metal detectors in airports in 1973.

¹⁰ Ordinary Least Square regression analysis is concerned with the study of the dependence of one variable, the dependent variable, on one or more other variables (the explanatory variables). Regression helps the analyst to estimate or predict the average value of one variable on the basis of the existing values of other variables (Gujarti, 1988).

The Regression method is a statistical tool which is widely used in field of criminal justice and policy studies (Delaney, 1987), (Wright, 1991), and (Grasmick and et al., 1993).

2. Research design hypothesis 1

The research design consists of a structured longitudinal study of an aggregate number of observations. The observation here is the number of hijacking incidents (the dependent variable) in each quarter for twenty one years. In this design, the analysis will consider the number of incidents before the installation of metal detectors at airports (the independent variable) in comparison to the number of incidents after introducing the program. The effects of the program would be represented as the difference between the average of observations before and after the introduction of the program.

A regression model is used to present the relationship between the examined variables. In this analysis, the independent variable is a dichotomous variable which takes a value of "0" or "1". The "0" represents the period of observations before the introduction of the program and the "1" represents the period of observations after the introduction of the program. This model is presented by the following equation:

$$Y = a_0 + bX$$

Y is total number of quarterly hijackings (the dependent variable), a_0 is the intercept and b is the parameter coefficient, and X is the metal detector effects (the independent variable).

3. Data related to the first hypothesis

Data on the number of the U.S. hijacking incidents from 1964 to 1984 are used to test the effects of metal detectors on the number of hijackings.

4. Second hypothesis

In the United States, it is assumed that the conviction of hijackers will serve as a deterrent factor to future hijackings. Increasing the number of convicted hijackers will decrease the number of hijacking incidents.

5. Research design hypothesis 2

The research design is presented in a form of a regression model.¹¹ The regression model is formulated in the following equation:

¹¹ The power of a regression model is measured in terms of how much explanation of the variations in the dependent variable are provided by it (Lewis-Beck, 1983).

$$Y = a_0 + bX$$

where a_0 is the intercept and bX is the parameter coefficient.

In this example the analyst can determine the value of the intercept (a_0) by subtracting the parameter coefficient from the equation (where a_0 is the average value of Y "the dependent" and each independent variable equals zero).

The interpretation of the slope is the average change in "Y" associated with a unit change in "bX".

6. Data related to the second hypothesis

Data on the number of U.S. hijacking incidents from 1964 to 1984 and the number of convicted hijackers are used to test the effects of conviction on the number of post implementation offenses.

7. Third hypothesis

The presence of metal detectors and convictions will have a deterrent effect on hijacking. Specifically, the number of hijackings will decline after the installation of metal detectors even after the number of convictions is

included in the model. Also, increasing hijacker convictions will decrease the number of hijackings even when the effect of metal detectors is included in the model.¹²

8. Research design hypothesis 3

The research design is presented in a form of multiple regression model. This model contains two independent variables (the installation of metal detectors and the number of convictions) and one dependent variable (the number of hijackings). The regression model is presented by the following equation:

$$Y = a_0 + b_1X_1 + b_2X_2$$

Y is the annual number of hijackings (the dependent variable), a_0 is the intercept, b_1 is a parameter coefficient, X_1 is the metal detector effects (the first independent variable), b_2 is a parameter coefficient, and X_2 is the effects of convictions (the second independent variable).

¹² The interpretation of the slope is the average change in "Y" associated with a unit change in "bX" when the other independent variable is held constant. Using this method of control, an analyst is able to isolate the effect of bX without any distorting influences from the other independent variable (Lewis-Beck, 1983).

9. Data related to the third hypothesis

Annual data on the number of U.S. hijackings and number of convicted hijackers from 1964 to 1984 are utilized.

B. Correlation analysis design

Many experts on terrorism believe that with increasing security measurements, criminals shifted their activities from hijackings to bombings then from bombings to missile attacks.

1. Hypotheses

- a. As the number of hijackings decreases, the number of bombings will increase.
- b. As the number of bombings decrease the number of missile attacks will increase, and
- c. As the number of hijackings decrease the number of airport attacks will increase.

2. Research design

A cross-sectional design is used to test these hypotheses. Zero-order correlations and partial correlations are examined: the simple correlation method

measures the relationships between hijackings, bombings, missile attacks, and airport attacks.¹³ Then, the partial correlation measures the relationship between hijackings and one variable while controlling for the effect of the other two variables. For example, it measures the relation between hijacking and bombing while controlling for the effects of missile attacks and airport attacks.

3. Related data

Ten years of worldwide data from 1980 to 1989 on hijackings, bombings, missile attacks, and airport attack incidents are used.

C. Descriptive and exploratory methodology

Terrorism literature lacks a theory which can explain passenger injuries and casualties in hijacking incidents, and what the most influential factors were behind the injuries and casualties in these incidents.

This section aims at drawing a descriptive profile of worldwide hijacking incidents that occurred over a 11-year period. It utilizes descriptive statistics to

¹³ Correlation coefficients are calculated.

explore and identify the influential factors in hijacking incidents.

1. Methodology

Univariate frequency tables, bivariate tables, and partial correlation tables are utilized to describe, explore, and identify any existing pattern in the data. Univariate frequency tables are utilized to identify the most frequent factors in hijackings. Then, these frequent factors are presented in bivariate correlation two dimensional tables. From these tables, the related factors are identified. Finally, the correlation between any identified related factors is further assessed through controlling for the influence of other factors.

2. Related data

Two hundred and eight hijacking cases from 1980 to 1990 are reviewed. These data are collected from different sources: books, magazines, newspapers, professional news letters and the Reuter computer network. From data sources, dates for hijacking incidents were identified. Then, an individual file for each case, with information from various sources, was created. This information is used to fill out the research instrument (appendix A).

This research instrument contains nine variables. Information on those variables for hijacking cases is entered into a computer data file (SPSS data file). This database is used to identify the characteristics of hijacking incidents.

D. Measurement

The present study utilizes a new database. This database contains the following variables:

1. Variables related to regression analysis
 - a. Total aggregate number of hijackings per year.
 - b. Total aggregate number of hijackers and total aggregate number of convicted hijackers per year.

2. Variables related to correlation design
 - a. Total aggregate number of hijackings per year.
 - b. Total aggregate number of aircraft bombings per year.
 - c. Total aggregate number of missile attacks per year.
 - d. Total aggregate number of attacks at airports per year.

3. Variables related to descriptive analysis of hijacking incidents

- a. Case identification number.
- b. Date of hijacking incidents: day, month, and year.
- c. Total aggregate number of the location of the hijacking incident (on the ground or in the air).
- d. Total number of weapons used by hijackers, broken down into seven categories:
 - o Firearms and explosives,
 - o Firearms,
 - o Explosives,
 - o Knives,
 - o Other,
 - o Fake or simulated weapon.
- e. Total number of hijackers in each hijacking incident.
- f. Total number of passengers killed in each hijacking incident.
- g. Total number of passengers injured in each hijacking incident (excluding deaths).
- h. How hijacking incident is resolved:
 - o by negotiation,
 - o by assault team,
 - o other.

- i. Classification of hijacker: an individual who belongs to identified criminal group, or an individual who does not belong to an identified criminal group.

CHAPTER IV
DEFINITIONAL AND LEGAL ISSUES

Within the context of attacks on aircraft, the most significant concern from a public policy perspective involves terrorist related attacks. Combating international terrorism is not a simple task, and from a public policy standpoint there are a number of factors which enter into the formulation of policy; among these are definitional problems, jurisdiction, extradition and punishment. These are coupled with tactical and operational considerations. A policy which cannot be implemented may well be worse than the lack of a policy.

In this chapter, discussion of political initiatives includes definition of terrorism and political offenses exception are addressed. It also addresses legal policy in form of conventions, which cover crime against aircraft. Problems facing the implementations of these conventions are discussed through legal case studies.

A. Defining terrorism

Conflicting political and economic values of nations are clearly evident in the globally varied interpretation of terrorism. In addressing their interests through policy

formulation, countries define issues differently. For example, there is "currently no uniform global definition for what constitutes terrorism. Therefore, an act which might be considered criminal in one country may be considered an acceptable act toward freedom or liberation in another country (Bassiouni, 1978)."

The core of the problem appears to be an inability to agree that all behaviors intended to harm a foreign political system are internationally opprobrious; most states are quite willing to overlook the disruption of a competitive state. It would seem that as long as states pursue competitive programs and policies, international agreement on political crime is unlikely (Sewell, 1975, p. 11).

Accordingly, a basic problem arises when a country labels an alleged terrorist act as a political crime. By describing an act as a political crime rather than terrorism, a country can reject appeals for assistance, or the requests of other countries to extradite the suspects.

With the proliferation of terrorism in the 1980s many countries have come to realize that their own interests may best be served through cooperation, particularly with regard to attacks on aircraft. Thus, there has been a movement to exclude terrorist acts from the protection usually afforded to political crimes. Both the United Nations and the International Police Organization

(INTERPOL) made major changes in their policies toward terrorist acts in the 1980s.

The political offenses exception has in the past created a major obstacle to the development of a universal definition of terrorism.¹⁴ However, common elements appear throughout literature and legal documents which structure a framework for dealing with the issue.

Efforts to develop an operational definition of terrorism, as different from a political crime, have been led largely by Western countries -- particularly the United States and the United Kingdom.¹⁵ Within the United States the definition has taken many forms, but the public Report of the Vice President's Task Force on Combatting Terrorism, issued in February 1986, provides what has become an acceptable one within the country. The

¹⁴ The political offense exception is a double-edged sword. It is intended to protect individual rights and personal freedom. However, it imposes national standards and values on other states. More significantly, it can, for self-serving interests, deny extradition because the presence of the fugitive in the requested state serves a political purpose (Bassiouni, 1975).

¹⁵ Even where there has been agreement on the need for a universal definition there are problems. For example, the United States did not have an extradition agreement with the United Kingdom until 1985, largely because of American sentiment among the Irish community that Provisional Irish Republican Army suspects who fled to the U.S. should not be extradited for what they perceive as political crimes rather than terrorist acts.

Report states that neither the United States nor the United Nations has adopted an official definition of what constitutes terrorism. However, as it concerns law enforcement in the United States, a practical definition of terrorism has been established and is used by the Federal Bureau of Investigation:

Terrorism is the use of force or violence, or threatened use of force or violence, against persons and places for the purpose of intimidating and/or coercing a government, its citizens, or any segment thereof for political or social goals (Ward, 1991, p. 1-4).

On an international scale, the State Department of the United States has adopted a more specific definition which is contained in Title 22, United States Code, Section 2656f (d), which states:

The term terrorism means premeditated, politically motivated violence perpetrated against noncombatant targets by subnational or clandestine agents, usually intended to influence an audience. The term international terrorism means terrorism involving citizens or the territory of more than one country. The term terrorist group means any group practicing, or that has significant subgroups that practice, international terrorism.

Yet another definition of international terrorism is espoused by General Galal Ezeldin, an Egyptian police official and expert on the subject, who states that:

Terrorism is a systematic and persistent strategy of violence practiced by a state or political group against another state or political group through a campaign of acts of violence, such as murder, assassination, hijacking, and the use of explosives or the like, with intent of creating a state of terror and public intimidation to achieve political ends (Ezeldin, 1991. p.39-40).

David E. Long, a former State Department official in the United States, in his book **The Anatomy of Terrorism**, states that:

Terrorism is the threat or use of violence for political purposes by individuals or groups, whether acting for or in opposition to established governmental authority, when such actions are intended to shock, stun, or intimidate a target group wider than the immediate victims. Terrorism has involved groups seeking to overthrow specific regimes, to rectify perceived national or group grievances, or to undermine international political order as an end in itself (Long, 1990, p. 3).

These definitions are generally consistent with or similar to more than 50 other definitions which appear in the literature, all of which have the following common elements:

1. The use of force or threat of force.
2. Intimidation of governments.
3. Political motivations to achieve political ends.

There are other elements which are included in some definitions and excluded from others.

Some definitions maintain that terrorist activities are directed against noncombatant targets, whereas others do not restrict the target of terrorist acts to noncombatants. Other definitions include terrorist acts which are committed by states against other states; others limit terrorist acts to acts committed by individuals and/or groups. One common characteristic of these definitions of terrorism is that they are very broad and can include all forms of political violence.

The statement "one man's terrorist is another man's freedom fighter" has become a familiar phrase, often accompanied by indignant insistence that action be taken to suppress the terrorist threat. The moral issue of equating terrorists with freedom fighters is a significant obstacle to a global consensus in defining terrorism. Subtle forms of national interests, both partisan and general, can have a major influence on a country's response to terrorist situations.

Political agendas frequently interfere with the public's pattern of expectations and behavior on which effective

international law enforcement cooperation must be based (Ezeldin, 1991, Kerstetter, 1978).

Accordingly, when states base their response to political violence on definitional criteria alone, the principal obstacle to implementing a uniform definition of terrorism is national self-interest (Long, 1990, Kerstetter, 1978, Bassiouni, 1975).

In addition to the political constraints of defining terrorism, there are semantic problems as well. As Long stated that "The word 'terrorism', while it has uniformly negative connotations, is so imprecise and emotionally evocative that it can be, and often is, used as a label for a wide variety of often unrelated and incompatible types of activity (Long, 1990)".

There has been some degree of success in combating international terrorism through limiting the effects of the political offense exception (labeling an act as being of a "political" or "criminal" rather than a "terrorist" nature). The international community (as well as individual countries) has reached agreement on excluding certain crimes from the protection of the political offenses exception. One of the major agreements focuses on an important area concerning crimes against aircraft.

The Geneva, Tokyo, Hague, and Montreal Conventions on Crimes Against Aircraft have made these crimes punishable offenses. Of particular interest in this context is the issue of jurisdiction.

B. Jurisdiction

Which country has jurisdiction in terrorist or criminal acts against aircraft can be problematical, because the act itself may involve more than one country. For example, an aircraft carrying passengers of different nationalities may be hijacked in the air, or on the ground in one country, flown to another country in which an assault may take place, flown to another country where the aircraft is destroyed, after which the terrorists may flee to yet another country.

Most difficulties in achieving international cooperation to suppress "terrorism" reflect failures to take account of the way authority is distributed in the international legal order. Attempts to narrow or abolish the "political offense," exception to extradition treaties, are seen as either futile or self-defeating for both political and legal reasons (Rubin, 1990, p. 277).

Policy is influenced in both the formation process and the implementation process. Countries have well reasoned and established agreements regarding crime against

aircraft; however, in practice, they face difficulties implementing the agreements due to policy problems.

States exercise jurisdiction within their territories. As an exception, countries can expand their jurisdiction beyond the territorial boundaries over offenses which occur in places such as embassies, on board ships, and on board aircraft.

Article 19 of the Geneva Convention on the High Seas gives to every state the right, on the high seas, or in any other place outside the jurisdiction of any state, to:

Seize a private ship or aircraft, or a ship taken by piracy and under the control of pirates, and arrest the persons and seize the property on board (Geneva Convention, 1958).

Articles 3 and 4, Chapter II, of the Tokyo Convention address the jurisdictional problem of differentiating between the state of registration of the aircraft and the contracting state.

Article 3 paragraph 1 states that "the state of registration of the aircraft is competent to exercise jurisdiction over offenses and acts committed on board".

Article 3 paragraph 2 states that "each contracting state shall take such measures as may be necessary to establish its jurisdiction as the state of registration over offenses committed on board aircraft registered in such state".

Article 4 states that "a contracting state which is not the state of registration may interfere with an aircraft in flight in order to exercise its criminal jurisdiction as an exception in the following cases:

- a) the offence has effect on the territory of such state;
- b) the offence has been committed by or against a national or permanent resident of such state.
- c) the offence is against the security of such state;
- d) the offence consists of a breach of any rules or regulations relating to the flight or maneuver of aircraft in force in such state;
- e) the exercise of jurisdiction is necessary to ensure the observance of any obligation of such state under a multilateral international agreement".¹⁶

Articles 3 and 4 of the Convention require the contracting state to adopt appropriate laws giving its

¹⁶ The Convention in Article 1 paragraph 3 defined the word "in flight": "an aircraft is considered to be in flight from the moment when power is applied for the purpose of take-off until the moment when the landing run ends".

courts jurisdiction. Further, the Convention does not exclude existing or future jurisdiction of states other than the state of registration of the aircraft. For example, when an aircraft lands in a state other than a registration state, the former can exercise jurisdiction over the aircraft.

The Tokyo Convention covers civil aviation. Article 1 paragraph 4 states that "This Convention shall not apply to aircraft used in military, customs or police services".¹⁷

In examining the impact of the Tokyo Convention as a means of control over the unlawful seizure of an aircraft, the Convention does not define hijacking specifically, however, it can provide jurisdiction over a hijacking. Chapter IV, Article 11 paragraph 1 and 2, states that "When a person on board has unlawfully committed by force or threat thereof an act of interference, seizure or other wrongful exercise of control of an aircraft in flight or when such an act is about to be committed, contracting states shall take all appropriate measures to restore control of the aircraft to its lawful commander or to preserve his control of the

¹⁷ See also the same rule in the Hague Convention in Article 3, paragraph 2.

aircraft.... In the cases contemplated in the preceding paragraph, the contracting state in which the aircraft lands shall permit its passengers and crew to continue their journey as soon as practicable, and shall return the aircraft and its cargo to the other persons lawfully entitled to possession".

The Hague Convention establishes jurisdiction for the contracting states in addition to the state of registration. Article 4, paragraph 1 and 2, states that "Each contracting state shall take such measures as may be necessary to establish its jurisdiction over the offence and any other act of violence against passengers or crew committed by the alleged offender in connection with the offence, in the following cases: a) when the offence is committed on board an aircraft registered in that state; b) when the aircraft on board which the offence is committed lands in its territory with the alleged offender still on board; c) when the offence is committed on board an aircraft leased without crew to a leasee who has his principal place of business or, if the lessee has no such place of business, his permanent residence, in that state.... Each contracting state shall likewise take such measures as may be necessary to establish its jurisdiction over the offence in the case where the alleged offender is present in its territory

and it does not extradite him pursuant to Article 8 to any of the states mentioned in paragraph 1 of this Article".

Accordingly, the Hague Convention does not give the state of registration priority for exercising jurisdiction over persons committing an unlawful seizure of aircraft. FitzGerald noted that "One reason for this rejection was that a system of priority of jurisdiction would not function unless there is a provision for compulsory extradition, and the Convention could not make such provision. Moreover, it was suggested, penal jurisdiction is a matter of territorial jurisdiction, and a priority system could create conflicts in the application of the Convention" (FitzGerald, 1971).

The Montreal Convention, Article 5, states that "Each contracting state shall take such measures as may be necessary to establish its jurisdiction over the offenses in the following cases: a) when the offence is committed in the territory of that state; b) when the offence is committed against or on board an aircraft registered in that state; c) when the aircraft on board which the offence is committed lands in its territory with the alleged offender still on board; d) when the offence is committed against or on board an aircraft leased without

crew to a lessee who has his principal place of business or, if the lessee has no such place of business, his permanent residence, in that state".

In anticipation of disputes about the interpretation or application of the Montreal Convention, Article 14 states that "Any dispute between two or more contracting states concerning the interpretation or application of this Convention which cannot be settled through negotiation, shall, at the request of one of them, be submitted to arbitration. If within six months from the date of the request for arbitration the Parties are unable to agree on the organization of the arbitration, any one of those Parties may refer the

dispute to the International Court of Justice by request in conformity with the Statute of the Court".

Even where jurisdiction has been established, a government must contend with the problem of extradition.

C. Extradition

The Tokyo Convention, Article 13, paragraph 2 states that "any contracting state shall take custody or other measures to ensure the presence of any person suspected

of an act contemplated in Article II, paragraph I, and of any person of whom it has taken delivery. The custody and other measures shall be as provided in the law of the state but may only be continued for such time as is reasonably necessary to enable any criminal or extradition proceedings to be instituted". Contracting states are required to take the appropriate measures to ensure custody of the alleged offender, but they are not obligated either to prosecute or extradite the alleged offenders.

In case of delivery of a person by the commander of the aircraft to the authority of a contracting state for any alleged offenses or disorder, the state "shall immediately make a preliminary inquiry into the facts".¹⁸

In taking any measures for investigation or arrest or otherwise exercising jurisdiction in connection with any offense committed on board an aircraft, the contracting states must pay due regard to the safety and other interests of air navigation and so act as to avoid unnecessary delay of the aircraft, passengers, crew, or cargo.

¹⁸ Article 13, paragraph 4.

The Convention was cautious in its approach to the logic of extradition. It affects existing extradition arrangements in that it provides that offenses committed on aircraft registered in a contracting state shall be treated, for the purpose of extradition, as if they had been committed not only in the place in which they have occurred but also in the territory of the state of registration of the aircraft. At the same time, however, the Convention stipulated that nothing in it should be deemed to create an obligation to extradite, since, at the time of the Tokyo Conference, states were reluctant to participate in multilateral worldwide arrangements pertaining to extradition (FitzGerald, 1971, p. 56).

Recognizing hijacking as a problem in the late 1960s and the existence of safe homes for hijackers as a

major factor behind the increase in hijackings, extradition was seen as a way to abolish these havens.

The Hague Convention in Article 8 addressed the difficult issue of extradition. The contracting states could not agree on establishing obligatory extradition to the state of registration, but they went beyond the effort made at the Tokyo Convention. The Hague Convention narrowed the alternatives of the contracting states in dealing with the alleged hijackers: the contracting states were obligated to either prosecute or extradite the alleged offender(s).

In addition, the Convention encouraged extradition of any alleged offenders by stating in Article 8 that:

1. The offence shall be deemed to be included as an extraditable offence in any extradition treaty existing between contracting states. Contracting states undertake to include the offence as an extraditable offence in every extradition treaty to be concluded between them.
2. If a contracting state which makes extradition conditional on the existence of a treaty receives a request for an extradition treaty, it may at its option consider this Convention as the legal basis for extradition in respect to the offence. Extradition shall be subject to the other conditions provided by the law of the requested state.
3. Contracting states which do not make extradition conditional on the existence of a treaty shall recognize the offence as an extraditable offence between themselves subject to the conditions provided by the law of the requested state.
4. The offence shall be treated, for the purpose of extradition between contracting states, as if it had been committed not only in the place in which it occurred but also in the territories of the states required to establish their jurisdiction in accordance with Article 4, paragraph 1 (Hague Convention, 1970).

Article 8 of the Montreal Convention contains the same basic provisions included in the Hague Convention, treating offenses under the Convention as extraditable offenses in any extradition treaty between contracting states, either existing treaties or those to be concluded in the future. It also, as in the case of the Hague Convention, gives contracting states the option of

considering the Convention as the legal basis for extradition, in the case of requests for extradition from other contracting states with which it has no extradition treaty.

The Convention also adopted the same line of the Hague Convention by limiting the contracting states alternatives to prosecution or extradition. Article 7 states that "The contracting state in the territory of which the alleged offender is found shall, if it does not extradite him, be obliged, without exception whatsoever and whether or not the offence was committed in its territory, to submit the case to its competent authorities for the purpose of prosecution. Those authorities shall make their decision in the same manner as in the case of any ordinary offence of a serious nature under the law of that state."

In short, the international community agreed on prosecuting the hijackers without any exception, which was an important legal step to combat aircraft hijacking. This was expected to be the remedy for the extradition problem, since each country could exercise its legal authority within its territory in addition to having the right to accept or refuse extradition. But, since different countries have different overall goals, legal

systems, and punishments, this did not produce a solution which satisfied all the interested countries.¹⁹

In case of disputes between the contracting states in interpretation or application of the Hague Convention, Article 12 paragraph 1 states that "Any dispute between two or more contracting states concerning the interpretation or application of this Convention which cannot be settled through negotiation, shall, at the request of one of them, be submitted to arbitration. If within six months from the date of the request for arbitration the Parties are unable to agree on the organization of the arbitration, any one of these Parties may refer the dispute to the international Court of Justice by request in conformity with the Statute of the Court".

The Montreal Convention covers disputes between the contracting states in interpretation or application of the Hague Convention by stating in Article 14 paragraph 1 that "Any dispute between two or more contracting states concerning the interpretation or application of

¹⁹ In order to solve this problem, many experts in the international community advocate the development of a universal criminal law system and a universal criminal justice system 'universal police, universal criminal court, universal jurisdiction and universal penal provisions' (Bassiouni, 1987).

this Convention which cannot be settled through negotiation, shall, at the request of one of them, be submitted to arbitration. If within six months from the date of the request for arbitration the parties are unable to agree on the organization of the arbitration, any one of those Parties may refer the dispute to the International Court of Justice by request in conformity with the Statute of the Court."

The principle par inter parem non habet jurisdictionem is important for exercising jurisdiction over states. For while jurisdiction over individuals who count on international crime can be directly exercised by national courts according to the principle of universality, states and their courts cannot have jurisdiction over other states. This task can be carried out only by international institutions, such as the International Court of Justice and international organizations such as the U.N., or in a regional sphere, institutions like the European communities (Bassiouni, 1987, p. 106).

When the problems of jurisdiction and extradition have been successfully addressed, a country must then contend with issues of punishment.

D. Punishment

The punishment or sanctions which fall within an individual country's criminal procedure may also present a problem.

At a dinner commemorating the United Nations' twenty-fifth anniversary held in New York City on September 14, 1970, the Secretary-General of the UN proposed an international hijacking tribunal to try crimes against aircraft and innocent passengers, "defending the interests of all peoples and nations and not of any particular people or nation..." This almost forgotten statement attracted little attention at the time, and the global skyjacking menace has continued because, in the words of Professor McWhinney, at present there is no "concerted and energetic international control action, as to aerial piracy, that really has some teeth in it." Here, in effect, a code already existed in the form of three international conventions criminalizing interference with air transport, and yet the world community, despite repeated injuries to its body politic, still refrains from establishing a penal tribunal that could implement the relevant statutory provisions of those aircraft conventions (Bassiouni, 1987, p. 298).

The Tokyo Convention addressed the offenses which take place on board an aircraft. Article 1 states that "This Convention shall apply in respect of: a) offenses against penal law, b) acts which, whether or not they are offenses, may or do jeopardize the safety of the aircraft or of persons or property therein or which jeopardize good order and discipline on board".

The Convention referred to national penal laws to define offenses. Each contracting state applies its national penal law. The Convention did not specify a certain punishment for the addressed criminal offenses. This means, the contracting states not only define offenses

but also apply the punishments as required in their national law. Since penal laws differ from country to country, the punishments would be different from one country to another.

For example, if agreement as to jurisdiction and extradition is reached between countries, a problem arises when the country holding the offender has a policy prohibiting capital punishment and the country seeking extradition does not.

Issues related to the return of equipment (aircraft) or release of passengers have generally been addressed successfully. The Tokyo Convention was directed mainly against criminal acts on board aircraft. Hijacking was increasing significantly especially in the Caribbean in the final preparatory period of Tokyo Convention, so it adopted, in Article 11, a proposal of the U.S.A., that the contracting states are obligated to take all appropriate measures to restore control of a hijacked aircraft to its lawful commander or, after landing, to permit passengers and crew to continue their journey as soon as practicable and to return the aircraft to the person entitled to possession.

The Hague Convention defined the offenses, but it did not specify punishments for these offenses. The Convention stressed the importance of punishment: Article 2 "Each contracting state undertakes to make the offence punishable by severe penalties".

The Montreal Convention followed the same line as the Hague Convention when it defined the offenses without specifying punishments for these offenses (FitzGerald, 1971). It stressed the seriousness of the offenses and the importance of having severe punishments. Article 3 states that "Each contracting state undertakes to make the offenses mentioned in Article 1 punishable by severe penalties".

The words "severe penalties" address the seriousness of the offenses and give a general guideline for countries to follow in punishing hijackers and saboteurs; however, the range of penalties could be quite broad, from spending time in prison to the death penalty.

In July 1978, the issue of taking joint actions against states which do not follow international laws in regard to aircraft hijacking was discussed at a conference of seven heads of state (Canada, Federal Republic of

Germany, France, Italy, United Kingdom, U.S.A.), held at Bonn. At the end of the meeting, a joint declaration was issued by the seven countries (Wheatcroft, 1981). The declaration states that:

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 (Alexander et al., 1990, p. 102).

CHAPTER V

ATTACKS ON AIRLINES: RESEARCH FINDINGS

Recent events have demonstrated the continuing importance of detailed knowledge about terrorism and the need for improved understanding of this phenomenon (Cordes et al., 1985, p. 3).

Less attention has been devoted to the more difficult problem of creating computerized databases on the characteristics and attributes of terrorist groups. Such information resides primarily on file cards, in folders of newspaper clippings, and in embassy cables, undigested intelligence reports, and individual case studies. This information cannot easily be retrieved, nor does it lend itself to systematic analysis (Cordes et al., 1985, p. 3).

Most studies related to attacks on aircraft or airports focus on one aspect of what is, in fact, a multi-dimensional problem. For example, studies of hijacking have generally centered on individuals and groups (Mickolus et al., 1987); technology designed to prevent suspect passengers or luggage from boarding an aircraft (Congress Report on Terrorism, 1991; Alexander, 1990); the bombing threat (President Report on Aviation Security, 1990); and the psychology of the offender (Willis, 1993, Moore, 1976), to name a few.

From a public policy standpoint, decision-makers are in a stronger position when the information they are using

covers the broader problem and the implications of one strategy over another. As hijacking increased, measures and policies to combat the phenomenon eventually reduced the threat. But, at the same time, it would appear that this approach may actually have increased the probability of bombings, which has also increased the number of deaths which have occurred in attacks on aircraft. In some measure this may be viewed as an associated relationship.

This is not to say that policy-makers should have avoided trying to prevent hijacking, but rather that more consideration might have been given to what might happen as a result of their decisions. This might have led to planning at an earlier stage to address the bombing threat. In fact, as bombings have increased, the response has been to develop new technologies which have apparently served as a deterrent. Given these developments, it would also appear that surface-to-air missiles may well be the next threat.

The difficulty of studying social phenomena is directly related to observational problems. Attacks on aircraft are complex acts involving multiple causes. This puts constraints on the social science researcher in developing a unique explanation.

Obtaining quality data is also a problem. Acquiring reliable and objective data, especially on sensitive social problems such as aircraft hijacking or crimes against aircraft, is a difficult matter.

Generally, crime data take two forms: 1) aggregate data and 2) descriptive data. These two types of data allow the analysts to conduct two methods of analysis: first, aggregate data analysis and second, case studies or descriptive data analysis.

The present study utilizes aggregate and descriptive data as a means of studying crimes against aircraft. Aggregate data analysis involves an examination of prevention strategies from a statistical perspective. Descriptive analysis provides insight into specific details and the unique characteristics of an incident.

The present chapter contains three types of analysis: regression analysis, zero-order correlation analysis, and descriptive analysis. While each employs a separate database, interrelationships are used in the overall analysis.

A. Regression analysis

Regression analysis is used to examine passenger screening, the effects of convictions, and the effects of passenger screening (metal detectors) on convictions. Three regression models are utilized:

1. Passenger screening

In January 1973, in an attempt to reduce the number of United States aircraft hijackings, passenger screening was implemented in airports around the country. It was expected that the effect of passenger screening would be to reduce the number of hijackings. The null hypothesis is stated as the following "the installation of metal detectors in U.S. airports will not decrease the number of U.S. hijackings between 1973 and 1984". This hypothesis is tested through a regression model. The regression model is presented in the following formula:

$$[Y (\text{United States hijackings}) = a + \\ \text{BX1 (installations of metal detectors)}]$$

$$Y = a - 4.79$$

$$R^2 = 0.36$$

Regression results demonstrate that the model explains 36% of the variation of the hijacking. The regression coefficient has a negative sign which indicates that metal detectors decreased the quarterly number of hijackings. The value of the regression coefficient is 4.79 which means that using metal detectors is associated with decreasing of the quarterly hijacking by four incidents. Also, the statistical results indicate that the model is adequate since it has a significant t-ratio (-6.15), and a significant F value (37.84) which exceeds the critical F value (4.54) for a .05 significance level. In sum, the regression results disconfirm the null hypothesis and confirm the prediction of the theoretical model.

2. The effects of convictions on U.S. hijackings

In 1961, the United States Congress passed the Piracy Act which made hijacking a punishable offense. It was expected that the conviction of hijackers would serve as a deterrent factor to future hijacking. The null hypothesis is stated as the following "increasing the number of convicted hijackers will not decrease the number of hijacking incidents. The regression model is presented in the following formula:

[Y (United States hijackings) = a +
BX1 (number of convicted hijackers)]

$$Y = a - .98$$

$$R = .81$$

$$R^2 = 0.65$$

The regression results indicate that there is high correlation (.81) between hijacking and number of non-convicted hijackers. The regression model explains 65% of the variation of the hijacking. The regression coefficient has a negative sign which indicates that increasing the number of convicted hijackers is associated with decreasing of the number of hijackings. The value of the regression coefficient is .98 which means that hijacking decreases by one when conviction increases by .98. Also, the statistical results indicate that the model is adequate since it has significant t-ratio (6.16), and significant F value (38.02) which exceeds the critical F value (4.54) for .05 significance level. In sum, the regression results disconfirm the null hypothesis and confirm the prediction of the theoretical model.

3. Testing the effects of passenger screening and convictions on U.S. hijackings

The results of the above two regression models support the hypothesis that metal detectors and convictions have independently influenced (decreased) the number of hijackings. The third regression model is designed to test the joint effects of metal detectors and conviction. The null hypothesis is stated as the following "the number of hijackings will not decline either after the installation of metal detectors or with increasing number of convicted hijackers". The regression model is presented in the following formula:

$$Y (\text{Annual U.S. hijackings}) = a + BX1 (\text{metal detectors}) + BX2 (\text{conviction})$$

$$Y = a - .95 - 5.82$$

$$R = .82$$

$$R^2 = .66$$

Regression results demonstrate that the model explains 66% of the variation of the hijacking. The results also indicate that the explained variation of hijacking by metal detectors and conviction is greater than the

explained variation of hijacking by metal detectors or conviction alone.

The regression results also indicate that both regression coefficients have their expected negative signs which means that metal detectors and convictions are associated with decreasing of hijacking at the same time. The value of regression coefficients for metal detectors is 5.82 which means that metal detectors are associated with decreasing of the annual hijacking by five incidents. The value of the regression coefficient for conviction is .95 which means that hijacking decreases by one when conviction increases by .95.

B. Correlation analysis

As mentioned before, many experts on terrorism believe that increasing security measures caused criminals to shift their activities from hijackings to bombings, then from bombing to missile attacks. This section explains the relationships between hijacking, bombing, missiles, and airport attacks.

1. Zero-order correlations

In assessing the relationships between hijacking, bombing, missiles, and airport attacks, the correlation results indicate that there is a positive correlation (.35) between hijackings and bombings: as hijackings increased bombing also increased. However, there is only a .35 correlation between hijacking and bombing. This relation is not significant. The observed significance level (.322) is larger than .05. Thus, one would not reject the null hypothesis that there is no association between the two variables. (See Table V)

The correlation results indicate that there was a negative relationship (-.25) between bombing and missile attacks; as bombing decreased missile attacks increased. The -.25 correlation between bombings and missile attacks is not significant. The observed significance level (.3485) is larger than .05, therefore, one would not reject the null hypothesis regarding the association between the two variables. (See Table V)

The statistical results indicate that there was a strong negative correlation (-.87) between hijackings and missile attacks; as hijackings decreased missile attacks increased. The results also indicate that the

relationship between hijacking and missile attacks is significant. The observed significance level (.001) is smaller than .05. Thus, one would reject the null hypothesis that there is no linear association between the two variables. (See Table V)

The correlation results demonstrate that there is a positive correlation (.53) between bombing and attacks at airports; as bombings increased, airport attacks also increased. However, there is .53 correlation between bombings and airport attacks. This relation is not significant since the observed significance level (.112) is larger than .05. Therefore, one would not reject the null hypothesis that there is no association between the two variables. (See Table V)

These results also demonstrate that there is a positive correlation (.49) between hijackings and attacks at airports, as hijackings increased, attacks at airports increased. However, there is .49 correlation between hijackings and airport attacks. This relation is not significant since the observed significance level (.149) is larger than .05, one would not reject the null hypothesis that there is no linear association between the two variables. (See Table V)

One can speculate that this is related to the degree of security at an airport: the greater the security, the less the probability of an airport attack or a hijacking.

The correlation results demonstrate that there is a negative correlation (-.32) between missile attacks and airport attacks; as missile attacks increased airport attacks decreased. However, there is -.32 correlation between hijackings and airport attacks. This relation is not significant since the observed significance level (.362) is larger than .05. Therefore, one would not reject the null hypothesis concerning the association between the two variables. (See Table V)

2. Partial correlation

In assessing the relationships between hijacking, bombing, missiles, and airport attacks, partial correlation results indicate that when other variables are held constant, there is a very weak and insignificant relation between hijacking and bombing. This means one would not reject the null hypothesis that there is no linear association between the two variables. (See Table VI)

The results also indicates that when other variables are held constant, there is a significant relationship

TABLE V
CRIMES AGAINST AIRCRAFT

Correlations:	HIJACK	BOMBING	MISSILES	AIRPORTS
HIJACK		.3499 (10) P= .322	-.8729 (10) P= .001	.4911 (10) P= .149
BOMBING	.3499 (10) P= .322		-.2503 (10) P= .485	.5339 (10) P= .112
MISSILES	-.8729 (10) P= .001	-.2503 (10) P= .485		-.3236 (10) P= .362
AIRPORTS	.4911 (10) P= .149	.5339 (10) P= .112	-.3236 (10) P= .362	

(Coefficient / (Cases) / 2-tailed Significance)

Note: Hijack = Hijackings
 Bombing = Explosive vs aircraft
 Missiles = Surface to-air attacks
 Airports = Attacks at airports

TABLE VI
PARTIAL CORRELATION

VARIABLE NAME	COEFFICIENT	STANDARD ERROR	T-RATIO	PARTIAL CORRELATION
BOMBING	0.19246	1.1103	0.17335	0.0706
MISSILES	-6.3967	1.5155	-4.2207	-0.8649
AIRPORTS	0.45627	0.45829	0.99559	0.3765

between hijackings and missile attacks, which confirms the zero-order correlation results. (See Table VI)

When using the partial correlation method, when other variables are held constant, there is an insignificant relationship between hijackings and airport attacks. (See Table VI)

c. Descriptive and exploratory analysis

In order to better understand the individual characteristics of hijacking a descriptive analysis of 208 individual cases was undertaken. This analysis involves an examination of data in aggregate form followed by two subsets, defined herein as "individual" and "group" hijackings. Individual hijackings refer to acts in which the perpetrator(s) acted alone, usually without a political motive, either to escape from a country or in the commission of a property crime. Group hijackings refer to those acts which involved a political motive, most commonly referred to as terrorism.

This research identifies four motivating categories of hijacking:

- o Individuals fleeing from one country to another
- o Mentally disturbed individuals

- o Common criminals
- o Ideologically or politically motivated hijackers

Descriptive analysis of hijacking demonstrates that firearms and explosives were a major factor in hijacking during the 1980s. The data supports the notion that public policy approaches must foster the development of new technology which detects explosives, while maintaining weapons detector devices, and continually training security personnel. (See Appendix B, Tables X and XV.)

Of the 208 cases studied worldwide, 164 were committed by "individuals" and 44 were committed by members of organized "groups." As noted earlier, the strategies involved in prevention may in fact be different if the threat ratios are different.

Subset analysis illustrates that politically motivated hijackings occurred more often during winter holidays, at the end and the beginning of the year, and non-group hijackings occurred more during summer months. These results could be beneficial in the formation of airport security plans. For example, airports could use this information to determine allocations of security

resources during the year. (See Appendix B, Tables XVIII and XXVIII.)

The greatest threat involves individual hijackers in terms of occurrences. However, geographically group hijackers were most likely to operate in the Middle East and South America; there was only one group related incident in North America. (See Appendix B, Tables XXIV and XXXIII.) Thus, in the United States the greatest threat in the 1980s was associated with individual incidents, and not terrorist groups.

The results of this analysis also demonstrates that injuries and death were highly correlated with politically motivated (group) hijackings. The use of force to resolve the hijacking also increased the probability of death and injury. This research supports the premise that the use of force should be a last resort, and that the probability of injury or death to passengers increases significantly when force rather than negotiation is used to resolve an incident. This is particularly true with regard to actions against terrorists or in politically motivated incidents. More than 80% of all incidents were resolved without injury

or death. (See Appendix B, Tables XXV, XXVI, XXXV, and XXXVI.)

Contrary to popular belief, the vast majority of hijackings took place while the plane was on the ground. However, negotiation proved successful much more often in individual hijackings. Not surprisingly, group related incidents were much more likely to involve more than one hijacker. (See Appendix B, Tables XI, XXIII, and XXXI.)

From a public policy perspective, it is important to recognize that attacks on aircraft involve a broad range of issues which are not immediately obvious. Much of the research which supports current public policy in this area is lacking. As governments have moved to meet each type of threat terrorists have also adapted by developing new techniques and strategies. If one assumes that terrorism is a phenomenon which is not likely to end in the near future, and that aircraft continue to represent a significant target, there is a significant need for more effective legal, public policy, and exploratory analysis in this area is great.

CHAPTER VI

SUMMARY

Crimes against and on board aircraft began as early as 1930 and have continued into the 1990s. The international community, as well as individual countries, has been working for a long time to provide measures for the security of aircraft. A number of multi-lateral and bi-lateral legal treaties have been implemented.

The Chicago Convention of 1944 established how states could assist an aircraft in their territory and help exercise control over it by legitimate authorities.

Piracy was one of the first areas of international crime to warrant a uniform definition to ensure a consistent approach to prosecution. The Geneva Convention of 1958 provided protection for aircraft on high seas against piracy. The international community succeeded in making piracy a universal crime by allowing any country to arrest and prosecute offenders, especially on the high seas, through defining the crime of piracy against ships and aircraft. Additionally, the Geneva Convention defined jurisdiction and gave every state the right, on the high seas, or in any other place outside the jurisdiction of any state the ability to seize a private ship or

aircraft, or a ship taken by piracy and under the control of pirates, and to arrest the persons and seize the property on board.

The Tokyo Convention of 1963 defined the legal status of aircraft and established judicial jurisdiction over crimes which are committed on board aircraft in flight.

The Hague Convention of 1970 and the Montreal Convention of 1971 addressed jurisdiction and the extradition issues of unlawful seizure through providing that the punishment of the offender(s) be according to the laws of the countries in which the offenders are apprehended. These conventions provide that if a country refuses to extradite an offender, it must then submit the case, without exception whatsoever and without undue delay, to competent authorities for the purpose of prosecution.

The international community has been successful in greatly reducing the havens of hijackers by establishing international legal policy. The international community is in general agreement that hijackers must be prosecuted. This represents an important legal step in combating aircraft hijacking. Mandatory prosecution was thought to be the best remedy to address the extradition problem because each country could exercise its legal

authority within its own territory, and retain the right to accept or refuse extradition.

This approach has resulted in some success achieved through cooperation and agreements on specific legal issues. Attempts to define "terrorism" as a criminal act have been largely abandoned because countries have not been able to develop a singular definition which is acceptable. Countries have chosen to address narrower and very specific legal definitions of crime. Criminals are prosecuted or extradited for specific crimes which are excluded from the political offenses exception rather than for "terrorism". Examples would include hijacking and sabotage.

Although countries have been somewhat successful in forming legal policy to combat crimes against aircraft, there continue to be numerous policy problems associated with the implementation of a formal universal legal policy in the areas of extradition and prosecution.

The 1958 Geneva Convention on Piracy defined piracy as a universal crime which authorizes any country to apprehend and prosecute pirates in any place in the world. However, this Convention is restricted to piracy which is

committed to achieve private ends and excludes any acts which might be defined as political.

The mandate of the Hague and the Montreal Conventions represented a significant legal step toward bringing criminals to justice. In practice, however, this was not a completely effective solution. The different penalties for hijacking imposed by different countries continue to create policy problems between the countries.

In a series of efforts to solve the political offenses exception problem, the United States Congress passed a law which allows for the arrest of international criminals outside of its territories if a crime is committed against an American citizen or carrier. The United States tried to solve the extradition problem by legalizing international abduction. The first abduction made by the United States was the capture of the hijacker of a Jordanian aircraft in 1985 in which there were two American citizens on board the hijacked aircraft.

United States v. Alvarez-Machain, 60 U.S.L.W 4523, (U.S. June 15, 1992) involved the abduction of a Mexican national who was accused of murdering a law enforcement drug agent in Mexico. The United States challenged international law. In this case the Supreme Court ruled

that there was no violation of the Extradition Treaty between the United States and Mexico. However, the court, in dictum, stated: "Respondent and his amici may be correct that respondent's abduction was 'shocking' and that it may be in violation of general international law principles."

These examples show how countries with different interests adopt different legal remedies to solve problems. Also, they show that countries must continue to work within the framework of foreign policy to address their own interests.

Since the international community has established a legal framework (in the form of international legal treaties), experts suggest that countries must now work toward narrowing differences in order to provide greater protection to international air transportation through the creation of an International Criminal Court which can prosecute hijackers and saboteurs. Results of this study support the proposition that hijackings in the United States decreased with increasing convictions of hijackers.

This study also indicates that prosecution and conviction of hijackers does serve as a deterrent. Less clear is the

difference between "individual" and "group" hijackings, and the deterrent effects. For example, it is difficult to determine whether or not politically motivated individuals are less likely to carry out a hijacking for fear of prosecution, or because of target hardening strategies.

In the area of airport and aircraft security, countries have utilized passenger screening, through metal detectors since 1973. Results of this study indicate that these techniques have reduced hijacking and bombing significantly. However, this research also supports a preliminary conclusion that "target hardening" at airports has increased the probability of missile attacks against aircraft. There is a direct correlation between the decrease in hijacking and an increase in bombing incidents. It remains to be seen whether or not airline security against bombing will significantly increase missile attacks.

APPENDICES
APPENDIX A
LEGAL CASE STUDIES

1. Beirut, Lebanon

On June 11-12, 1985, at 9:20 a.m. six Lebanese gunmen stormed Royal Jordanian Airlines (Alia) flight 402 while it was boarding passengers at Beirut International Airport. The Boeing 727 had been scheduled to fly 117 passengers and 9 crew members from Beirut to Amman. The gunmen managed to hold 65 passengers (51 Lebanese, 8 Jordanians, 2 Americans, 1 Dominican, 1 Italian, 1 Brazilian, 1 Sri Lankan) and 9 crew members. In response to the hijackers' demand to fly to Tunis, the captain and crew refused to obey. The hijackers then took the flight engineer outside the plane and threatened to kill him. According to the copilot, "we were forced to comply."

The plane landed at Larnaca Airport in Cyprus at 10:36 a.m. where, under heavy security, the plane was refueled. It took off at 11:50 a.m. for Tunis but was denied permission to land. The plane then landed in Sicily where it was refueled for a return trip to Tunis. Once again, landing permission was denied by Tunisian authorities.

This time the plane returned to Beirut where it landed at 10:20 p.m., 13 hours after the incident's start.

At 2:50 a.m., after four and a half hours on the ground, the plane took off for Damascus. While enroute the plane was denied permission to enter Syrian airspace. It returned to Beirut at approximately 4:50 a.m. Some time after its return, other gunmen entered the plane to relieve some of the original hijackers.

At 1:30 p.m. the hijackers released all but eight Jordanian sky marshals, who were handed over to Amal militiamen. By remote control the hijackers then set off a dynamite blast in the cockpit that started a fire which engulfed the plane. During the ensuing confusion the hijackers escaped. The incident lasted 28 hours and 10 minutes and resulted in no injuries. An interview with the copilot indicated that the hijackers had been armed with guns, hand grenades, and explosives.

On June 12, the eight Jordanians were immediately released.

On September 13, 1987, Federal Bureau of Investigation (FBI) agents arrested Fawaz Younis who was believed to have masterminded the June 11, 1985, hijacking.

On October 7, 1987, Younis was arraigned in a US federal court on charges of air piracy, placing a destructive device aboard an aircraft, committing violence aboard an aircraft, and aiding and abetting a hijacking (Mickolus et al., 1989).

In United States of America V. Fawaz Younis, 681 F. Supp. 896 (U.S.D.C., Feb. 12, 1988) and United States of America V. Fawaz Younis, a/k/a Nazeeh, 924 F. 2d 1086, (U.S. App.D.C. 129, Oct. 22, 1990 and Jan. 29, 1991), the court stated that the defendant a "Lebanese resident-citizen charged for his alleged involvement in hijacking of Jordanian civilian aircraft in the Middle East moved to dismiss, challenging authority for expanding the limits to which the United States Government might extend its prosecutorial arm over crimes allegedly committed by a nonresident alien on foreign soil".

The defendant was charged with nine counts, five counts were filed before his apprehension, the other four, after his apprehension. The charges were: "Count I--conspiracy to commit hostage taking against passengers and crew, to damage, destroy, disable and place destructive devices aboard an aircraft, and to perform acts of violence against passengers and crew in violation of 18 U.S.C. ss

371, 1203, 32(a)(1), (2) and (5); Count II--seizing, detaining and threatening passengers and crew members, including three American nationals as hostages, in violation of 18 U.S.C. ss 1203; Counts III, IV and V--damaging, destroying, disabling and placing a destructive device upon an aircraft operating in foreign air commerce and committing acts of violence against aircraft personnel in violation of 18 U.S.C. ss 32(a)(1), (2) and (5). After Younis was apprehended in international waters of the Mediterranean Sea and brought to the United States, a superseding indictment was filed on October 1, 1987 adding four additional counts. Those counts charged Younis with "damaging, destroying and placing a destructive device on an aircraft registered in a foreign country and harming aircraft personnel, in violation of 18 U.S.C. ss 32(b)(1), (2) and (3) and 49 U.S.C.App. s 1472(n)(1)."

The defendant and his legal counsel tried to dismiss the indictment on grounds that the court lacked subject matter jurisdiction under: a) general principles of international law and b) the stated provisions of the United States Code. They also tried to suppress all evidence obtained during the course of the arrest on the bases of the exclusionary rule.

The court found that the United States Hostage Taking Act included a Statute which contains in its Subsection (b)(1) that a defendant is properly chargeable for offenses occurring outside the United States if any one of the following circumstances exists: "(A) the offender or the person seized or detained is a national of the United States; (B) the offender is found in the United States; or (C) the governmental organization sought to be compelled is the Government of the United States."

Based on the sub-paragraph (B) the court (United States federal court) stated that it "had jurisdiction under the Hostage Taking Act over a Lebanese resident and citizen in prosecution for his alleged involvement in the hijacking of Jordanian civilian aircraft in the Middle East, a hijacking that included two American nationals as hostages; the Act imposes liability on any individual who takes an American national hostage irrespective of where the seizure occurs. 18 U.S.C.A. s 1203."

Concerning the international law, the court established its jurisdiction on the following two basis: passive personality and universal jurisdictions. A passive personality, jurisdiction is based on the nationality of the victim (two of the passengers were American). The court adopted Bassiouni's definition of universal crime:

it stated that "The Universal principle recognizes that certain offenses are so heinous and so widely condemned that 'any state' if it captures the offender may prosecute and punish that person on behalf of the world community regardless of the nationality of the offender or victim or where the crime was committed." The court recognized hijacking and hostage taking as universal crimes, because they are so widely condemned by treaties.

The defense argued that "Even if there is authority to assert jurisdiction over Younis under international law, defendant's counsel argues that the Court has no jurisdiction under domestic law. He contends that Congress neither had the power nor the intention to authorize jurisdiction over the offenses of hostage taking and aircraft piracy committed half way around the world." The court found that "... defendant's argument fails to recognize the power of the Congress to legislate overseas and to define and punish offenses committed on foreign soil. Article I section 8, Clause 11 of the Constitution gives Congress the power to [define and punish Piracies and Felonies committed on the High Seas and Offenses against the Law of Nations]." It also accepted that "the government had authority to secure Younis' arrest under the Hostage Taking Act. Since the

government had a clear statutory basis for arresting the defendant...".

The court found that the United States Congress adopted a law (18 U.S.C. 32) which included the Hague Convention of 1970 concerning crime against aircraft. In the light of 18 U.S.C. 32, sub-section (b), the United States Government asserted that the court has jurisdiction over the defendant who was later "found" in the United States. The government stated that " this provision expressly extends jurisdiction over an alleged saboteur who commits offenses against an aircraft located in foreign airspace and has no other nexus to the United States other than that he or she is later found in the United States."

Defendant's counsel argued that his client was not "found" in the United States within the meaning of the statute, because the defendant did not enter the United States voluntarily and he was not "discovered" by the government. Therefore, the counsel argued that the government's forcible kidnapping of the defendant could not give any jurisdiction under the statute.

The court found that it had jurisdiction under the Hague and Montreal Conventions when it stated that "once defendant is brought within the jurisdiction of the Court

he is subject to prosecution for all federal offenses. Younis was seized for the alleged violation of the hostage taking statute. Physical presence in United States territory is not a necessary element for exercising subject matter jurisdiction over that offense. Only after he stepped onto American soil was the defendant charged with aircraft piracy. Indeed, once he was within the boundaries of the United States, the government was obligated by statute and the Montreal Convention to prosecute him for destroying the aircraft."

Finally, the defendant argued that the government used outrageous conduct to secure and bring him to trial in the United States which waived his constitutional right to due process of law. The defendant built his argument on the Toscanino case of 1975, in which the court stated that "it merely expanded due process to protect individuals brought to the United States from abroad by the use of torture, brutality and similar outrageous conduct under the United States Government Officials." The Toscanino case was considered as an exception of the Ker-Frisbie Rule of 1886. The core of the Ker-Frisbie Rule could be summarized in the following way "mere irregularities in the manner in which [an individual is] brought into the custody of the law" does not constitute

a violation of Fourteenth Amendment due process so as to require the dismissal of charges.

The appellant court rejected Younis request when it stated that "we concluded that while the government's conduct was neither 'picture perfect nor a model for law enforcement behavior,' the 'discomfort and surprise' to which appellant was subjected did not render his waiver invalid. Younis I, 859 F. 2d at 969. Similarly, we now find nothing in the record suggesting the sort of intentional, outrageous government conduct necessary to sustain appellant's jurisdictional argument."

In 1992, in the case of Alvarez-Machain, the Supreme Court confirmed the decision of the District Court which rejected the defendant's claim that he was abducted by outrageous governmental conduct. It stated that "these acts, if true, do not constitute acts of such barbarism as to warrant dismissal of the indictments."²⁰ However, the Supreme Court ruled that there was no violation of the Extradition treaty between the United States and Mexico. The court stated "Respondent and his amici may be correct that respondent's abduction was 'shocking' and

²⁰ Alvarez-Machain alleged that he also was shocked six or seven times and injected twice with a substance that made him feel dizzy. Later he was forced on a plane and flown to El Paso, Texas.

that it may be in violation of general international law principles."

2. Hijacking of Pakistan International Airlines on March 2, 1981

On March 2, 1981, three men illegally diverted a Pakistan International Airlines B-720-B Flight 326, on a scheduled flight from Karachi to Peshawar with 137 passengers and 11 crew on board, to Kabul, Afghanistan. Pakistan sent a negotiating team to Kabul. The hijackers demanded that Pakistan release 92 political prisoners, and threatened to destroy the aircraft with explosives unless their demands were met.

On March 4, the hijackers released 27 passengers. On March 6, the hijackers shot a Pakistani passenger after a deadline expired. On March 7, the hijackers released two more passengers. On March 8, the hijackers forced the pilot to fly to Damascus, Syria, where negotiations continued.

On March 9, the hijackers released the flight attendant. On March 11, Pakistan released two persons and they joined the negotiation team. On March 12 the hijacking ended peacefully in Damascus, with Pakistan agreeing to

free 55 prisoners. On March 14, all passengers and crew members were released.

As part of the deal that ended the hijacking, Syria agreed, at the request of the Pakistani Government, to provide temporary asylum to the hijackers and to receive the prisoners being released from Pakistani prisons. After that, the hijackers went to Kabul.

On May 18 the Pakistan government requested extradition of the hijackers from Kabul. A few weeks later, Pakistani authorities said that they had apprehended one of the three hijackers near the Pakistan-Afghanistan border. On July 10, 1984, the Afghanistan government reported the arrest and execution of the leader of the hijackers (Morris, 1991); (Mickolus et al., 1988); (Alexander et al., 1990).

In July 1981, the seven heads of state met in Ottawa. At that time, two of the three hijackers were still in Afghanistan; they had not gone through a prosecution or extradition process.

The heads of states and governments proposed implementation of the measures which had been declared in Bonn in 1978. The measures include the suspension of all

flights to and from Afghanistan until the Afghanistan government met its obligations under the Hague Convention of 1970 to which Afghanistan is a party.

On November 30, 1981, the seven states implemented the proposed sanctions against Afghanistan. The seven states requested other states to participate or observe the implementation of suspension of air transportation to and from Afghanistan.

In Mid-1984 Kabul Radio reported that one of the three PIA hijackers had been executed in Kabul on a conviction of murder unrelated to the PIA hijacking. If true, the report would indicate that only one of the three PIA hijackers remained alive and at large at that time. In any event, the Bonn Declaration sanctions remained in effect until 1986, when the Seven, evidently concluding that they had achieved their purpose, quietly ended them (Alexander, 1990, p. 108-110).

In 1986 the heads of the seven states and governments met in Tokyo in a regular meeting. They showed their concerns about the dangers of increasing attacks against aircraft other than hijacking. They decided to expand the Bonn Declaration of 1978 to cover attacks on civil aviation.

3. Pan Am flight 103:

Pan Am flight 103 blew up over Lockerbie, Scotland, and a French airliner exploded in 1989 over Niger. A total of 441 people were killed in the two incidents.

The United States, Britain, and France were the main countries victimized in these two incidents. The three countries were also among the seven states which participated in Bonn Declaration of 1978 and its expansion to cover attacks against civil aviation in 1986.

The three governments decided not to take joint action by themselves with the rest of the seven states as they had done in the case of Afghanistan in 1981. Instead, the three governments brought the matter to the Security Council of the United Nations. The accused government requested the International Court of Justice to handle the case according to the Hague Convention of 1970 to which the United States, Britain, France and Libya are parties. The Court decided not to handle the case on the basis that it cannot exercise jurisdiction in a matter which is being handled by the Security Council at the same time.

On March 31, 1992, the Security Council imposed the following sanctions on Libya:

1. the severing of airline links to Libya
2. the severing of arms sales to Libya and
3. the downgrading of diplomatic relations.²¹

Since then the Security Council has decided to retain these sanctions as well as add new sanctions.

With regard to attacks on aircraft, particularly in the international arena, public policy continues to be evolutionary. In order to develop a better understanding of the problem, there is a need to provide more information about the phenomenon itself. The following chapter offers a statistical analysis of attacks on aircraft.

²¹ These mandatory sanctions took effect on April 15, 1992, and are to be reviewed every 120 days.

APPENDIX B
STATISTICAL ANALYSIS

In this section, the description of hijacking incidents is presented in two major ways. First is a description of all hijacking incidents. In the second analysis hijackings are divided into two categories: individual hijacking (non-group hijackings) and group hijackings. This is followed by descriptive and exploratory analysis of these two categories.

1. Description of all hijackings

One way of looking at hijacking is to compare the monthly distribution of incidents which have occurred in an eleven years period. In this analysis the largest number of hijackings occurred in July, in which there were 24 incidents representing 11.5% of the annual total. (See Table VII)

An analysis of hijackings in four month periods indicates that in the first four months, from January to April, there were 48 cases (38.4%); in the second four months, from May to August, there were 70 cases (42.7%); and,

from October to December, there were 46 cases (28.0%).
(See Table VII)

Analysis of hijacking incidents over an eleven year period (from 1980 to 1990) indicates that the largest number of incidents occurred in 1980 (29) representing 12.2% of all hijackings in that period. Between 1980 and 1985 there were 100 hijackings, which represented 70.2% of all hijackings in that period.

As hijackings increased public concern also increased, especially after the intensive media coverage in connection with the TWA hijacking in June 1985 which lasted for three weeks.^{22, 23} (See Table VIII)

²² After the TWA hijacking, the United States government initiated a cabinet-level Task Force on Combating Terrorism. In December of 1985, the Task Force "recommended, among other things, an effort to improve coordination among government agencies; creation of a full-time position on the National Security Council staff; and the establishment of a consolidated intelligence center on terrorism. This report further increased government interest in dealing with the terrorist problem in a coordinated way" (United States Congress, 1991).

²³ In 1986, the Tokyo summit declaration on terrorism by the seven largest economic countries referred to the problem of terrorist attacks on civil aviation. The declaration indicated expansion of the Bonn hijacking declaration to aircraft sabotage, in order to make the 1978 Bonn Declaration more effective in dealing with all forms of crimes affecting civil aviation.

Between 1980 and 1985 a total of 218 hijackings occurred, representing 77% of total hijacking in the 1980s. During this period governments implemented stronger measures of control, utilizing weapons detection systems and better screening at airports, which appears to have had a positive impact in reducing hijackings in the latter part of the 1980s (Ward, 1993, p. 3).

Hijackings increased slightly between 1988 and 1989 and again in 1990, due largely to a large increase in the number of incidents in Russia, which occurred during widespread social and economic disruption in the former Soviet Union. (See Table VIII)

a. Number of Hijackers

The data demonstrates that most hijackings are committed by one or two people. 97 hijackers were individuals who were trying to escape from one country to another. In all, 114 of the hijacking cases (55.9%) were committed by one person and 90 cases (44.15%) were committed by two persons or more. (See Tables VIV and X)

b. Weapons used by Hijackers

Firearms and explosives were used together in 36 hijacking cases (18%). Firearms alone were used in 45 cases (22.5%) and explosives alone were used in 17 cases (8.5%). When firearms and explosives are combined, they account for 98 of the 208 hijacking cases (49%). Knives were used in 10 cases (5%). Fake or simulated weapons were used in 44 cases (22%). (See Table X)

c. Locations of Hijackings

Data in table XI indicates that most hijacking incidents are initiated when the aircraft is on the ground. Eighty-three percent (173 cases) of all incidents occurred while the aircraft was on the ground, and 16.8% (35 cases) were committed while the aircraft was in flight. These results would indicate the importance of security plans which focus on training flight personnel to cope with such incidents, and the need for a rapid response plan within the airport.

TABLE VIII
MONTHLY HIJACKING 1980-1990

Month	Frequency	Percent	Cumulative Percent
JANUARY	17	8.2	8.2
FEBRUARY	17	8.2	16.3
MARCH	20	9.6	26.0
APRIL	9	4.3	30.3
MAY	16	7.7	38.0
JUNE	20	9.6	47.6
JULY	24	11.5	59.1
AUGUST	21	10.1	69.2
SEPTEMBER	17	8.2	77.4
OCTOBER	16	7.7	85.1
NOVEMBER	16	7.7	92.8
DECEMBER	15	7.2	100.0
TOTAL	208	100.0	

TABLE VII
ANNUAL HIJACKING 1980-1990

Year	Frequency	Percent	Cumulative Percent
1980	29	13.9	13.9
1981	24	11.5	25.5
1982	23	11.1	36.5
1983	28	13.5	50.0
1984	24	11.5	61.5
1985	18	8.7	70.2
1986	9	4.3	74.5
1987	8	3.8	78.4
1988	12	5.8	84.1
1989	11	5.3	89.4
1990	22	10.6	100.0
TOTAL	208	100.0	

TABLE VIV
NUMBER OF HIJACKERS 1980-1990

	Frequency	Percent	Percent	Cumulative Percent
ONE HIJACKER	114	54.8	55.9	55.9
MORE THAN ONE HIJACK	90	43.3	44.1	100.0
MISSING	4	1.9		
	-----	-----		
TOTAL	208	100.0		
Valid Cases	204	Missing Cases	4	

TABLE X
WEAPONS USED IN HIJACKING 1980-1990

	Value	Frequency	Percent	Percent	Cumulative Percent
FIREARMS AND EXPLOSIVES		36	17.3	18.0	18.0
FIREARMS		45	21.6	22.5	40.5
EXPLOSIVES		17	8.2	8.5	49.0
KNIVES		10	4.8	5.0	54.0
FAKE-SIMULATED WEAPONS		44	21.2	22.0	76.0
OTHER		48	23.1	24.0	100.0
MISSING		8	3.8		
		-----	-----		
TOTAL		208	100.0		
Valid Cases	200				
Missing Cases				8	

TABLE XI
 LOCATION OF HIJACKING - IN THE AIR OR ON THE GROUND
 1980-1990

	Frequency	Percent	Cumulative Percent
ON GROUND	173	83.2	83.2
IN THE AIR	35	16.8	100.0
	-----	-----	
TOTAL	208	100.0	
Valid Cases	208	Missing Cases	0

d. Resolution of Hijacking Incidents

Table XII indicates that 140 of hijacking cases (67.3%) were resolved by negotiation and 65 cases (31.3%) were resolved by using force.

e. Violence on Board Aircraft

Table XIII demonstrates that 195 incidents representing 93.8% of all cases were resolved without the loss of life and only 13 (6.3%) involved death.

Table XIV indicates that in 84.1% of all incidents (174 cases) there were no injuries. Injuries occurred in 33 of the incidents (15.9%).

f. Motives of Hijackers

The motives behind hijacking include those in which the aim is to achieve a political or personal objective. Moore states that "Hijacking a plane appealed to

TABLE XII
 WAYS OF RESOLVING HIJACKING 1980-1990

	Frequency	Percent	Cumulative Percent
BY NEGOTIATION	140	67.3	67.3
USING ASSAULT TEAM	65	31.3	98.6
OTHER	3	1.4	100.0
	-----	-----	
TOTAL	208	100.0	
Valid Cases	208	Missing Cases	0

TABLE XIII
DEATHS IN HIJACKING 1980-1990

	Frequency	Percent	Cumulative Percent
NO DEATH	195	93.8	93.8
DEATH	13	6.3	100.0
	-----	-----	
TOTAL	208	100.0	
Valid Cases	208	Missing Cases	0

TABLE XIV
INJURIES IN HIJACKING 1980-1990

	Frequency	Percent	Percent	Cumulative Percent
NO INJURIES	174	83.7	84.1	84.1
INJURIES OCCURRED	33	15.9	15.9	100.0
	1	.5	MISSING	
	-----	-----		
TOTAL	208	100.0		
Valid Cases	207	Missing Cases		1

extortionists seeking political and personal gain as a dramatic method of enforcing their demands" (Moore, 1976).

In addition to those hijackers whose goals were to achieve "rational" outcomes, there were also emotionally disturbed hijackers.

According to Sewell, there are three types of hijackers: psychopathological hijackers, criminal hijackers, and ideologically motivated hijackers.

Psychopathological hijackers are described as mentally disturbed and non-social persons. They rebel without rational cause, and their hijackings are ill-planned and ill executed.

Criminal hijackers are rational thinkers and socially normal. They commit a hijacking for profit and their attacks are usually well planned and executed.

Ideologically motivated hijackers are rational thinkers, but they reject the political norms of their societies. They rebel to impose their version of political norms on

their societies. Their attacks are well planned and well executed (Sewell, 1975).²⁴

The attack on U.S. airlines was three-pronged: hijackers were political dissidents, common criminals, or people who were emotionally disturbed (Peter, 1991, p. 2).

The data in Table XV demonstrates that 97 hijackings, which represented nearly half of the hijackings (46.6%), were committed by people who wanted to escape from one country to another. In 50 cases, representing nearly one-fourth of the cases (24%), the motives were political; either to free prisoners [20 cases (9.6%)], or for other political reasons [30 cases (14.4%)]. Twelve attacks, representing 5.8% of all cases, were committed by ordinary or non-political criminals and 21 hijackings, representing 10.1% of the cases, were committed by mentally disturbed persons.

The empirical data therefore suggests four categories of hijackers: 1) individuals fleeing from one country to another, 2) ideological motivated hijackers, 3) common criminal hijackers, and 4) mentally disturbed hijackers.

²⁴ Sewell stated that the term "Ideologically motivated offenses" is first presented by Professor M.C. Bassiouni.

The empirical results also demonstrate that social disruption within a country can increase hijacking. For example, in the former Soviet Union, hijackings dramatically increased during its dissolution in 1990 and 1991. (See Table XVI)

g. Individual (non-group) and Group Hijackings

Data in table XVII demonstrates that 164 hijackings were committed by individuals who were not members of any organized groups and 44 hijackings were committed by members of organized groups. This latter category includes incidents involving terrorist groups and organized dissident movements.

In order to better understand the hijacking phenomenon the original database was divided into two sub-databases. One sub-database contains 114 individual hijacking cases and the other contains 44 group hijacking cases. A description of these two categories of hijacking is provided in the following section.

TABLE XV
MOTIVES BEHIND HIJACKING 1980-1990

	Frequency	Percent	Cumulative Percent
ESCAPE FROM A COUNTRY	97	46.6	46.6
MENTAL ILLNESS	21	10.1	56.7
CRIMINAL ACTIVITY	12	5.8	62.5
FREE POLITICAL PRISONER(S)	20	9.6	72.1
POLITICAL REASONS	30	14.4	86.5
OTHER	28	13.5	100.0
	-----	-----	
TOTAL	208	100.0	

TABLE XVI
HIJACKINGS IN SOVIET UNION 1989-1992

YEAR	HIJACKINGS
1989	4
1990	26
1991	10
1992	1

TABLE XVII
INDIVIDUAL V. ORGANIZED HIJACKING 1980-1990

	Hijacking Incidents	Percent	Cumulative percent
1. Individual hijackings	164	78.8	78.8
2. Group hijackings	44 -----	21.2 -----	100.0
TOTAL	208	100.0	

2. Non-Group Related Hijackings

In this context, non-group related hijackings (hereafter referred to as "individual" hijackings) refer to incidents in which the act was carried out by individuals who had no apparent tie to a particular organized terrorist or political group.

An analysis of monthly for 164 hijacking indicates that the largest number of these incidents occurred in July with 20 cases, representing 12.2% of all individual hijackings. (See Table XVIII)

Data on individual hijackings over an eleven year period from 1980 to 1990, indicate the largest number occurred in 1983, when there were 25 incidents, representing 15.2% of all incidents. (See Table XIV)

Table XX indicates that most individual hijackings (137 cases with 83.5%) occurred while aircraft were on the ground and 27 cases, representing 16.5% of the cases, were committed while the aircraft was in flight.

TABLE XVIII
INDIVIDUAL HIJACKINGS BY MONTH 1980-1990

	Frequency	Percent	Cumulative Percent
JANUARY	11	6.7	6.7
FEBRUARY	13	7.9	14.6
MARCH	16	9.8	24.4
APRIL	8	4.9	29.3
MAY	15	9.1	38.4
JUNE	16	9.8	48.2
JULY	20	12.2	60.4
AUGUST	19	11.6	72.0
SEPTEMBER	15	9.1	81.1
OCTOBER	12	7.3	88.4
NOVEMBER	10	6.1	94.5
DECEMBER	9	5.5	100.0
	-----	-----	
TOTAL	164	100.0	

TABLE XVIV
 INDIVIDUAL HIJACKING BY YEAR 1980-1990

Year	Incidents	Percent	Cumulative Percent
1980	20	12.2	12.2
1981	15	9.1	21.3
1982	19	11.6	32.9
1983	25	15.2	48.2
1984	18	11.0	59.1
1985	13	7.9	67.1
1986	5	3.0	70.1
1987	6	3.7	73.8
1988	10	6.1	79.9
1989	11	6.7	86.6
1990	22	13.4	100.0
TOTAL	164	100.0	

TABLE XX
LOCATION OF INDIVIDUAL HIJACKINGS 1980-1990

	Incidents	Percent	Cumulative Percent
1. ON GROUND	137	83.5	83.5
2. IN THE AIR	27	16.5	100.0
	-----	-----	
TOTAL	164	100.0	

Firearms and explosives were used together in 18 hijacking cases (11.2%). Firearms alone were used in 36 cases (22.4%) and explosives alone were used in 16 cases (9.9%). When firearms and explosives are combined they accounted for 70 of hijacking incidents (43.5%). Fake or simulated weapons were used in 42 cases (26.1%), and knives were used in eight cases (5%). (See Table XXI)

Of the 163 cases in this study, 106 (65%) were committed by one person and 57 cases (35%) were committed by two or more persons. (See Table XXII)

Table XXVIII indicates that 115 hijacking cases representing 70.1% of individual hijacking were resolved by negotiation and 49 cases (29.1%) were resolved by using an assault team.

By geographic location, Table XXIV indicates that 51 hijacking cases (31.1%) took place in Europe; 51 (31.1%) occurred in North America; another 20 (12.2%) occurred in

TABLE XXI
 WEAPONS USED IN INDIVIDUAL HIJACKINGS 1980-1990

	Frequency	Percent	Percent	Cumulative Percent
FIREARMS AND EXPLOSIVES	18	11.0	11.2	11.2
FIREARMS	36	22.0	22.4	33.5
EXPLOSIVES	16	9.8	9.9	43.5
KNIVES	8	4.9	5.0	48.4
FAKE-SIMULATED WEAPONS	42	25.6	26.1	74.5
OTHER	41	25.0	25.5	100.0
MISSING	3	1.8		
	-----	-----		
TOTAL	164	100.0		
Valid Cases	161		Missing Cases	3

TABLE XXII

NUMBER OF HIJACKERS IN INDIVIDUAL HIJACKINGS 1980-1990

	Frequency	Percent	Percent	Cumulative Percent
ONE HIJACKER	106	64.6	65.0	65.0
MORE THAN ONE HIJACK	57	34.8	35.0	100.0
MISSING	1	.6		
	-----	-----		
TOTAL	164	100.0		
Valid Cases	163		Missing Cases	1

TABLE XXIII

WAYS OF ENDING INDIVIDUAL HIJACKINGS 1980-1990

	Frequency	Percent	Cumulative Percent
1. NEGOTIATION	115	70.1	70.1
2. USING ASSAULT TEAM	49	29.9	100.0
	-----	-----	-----
TOTAL	164	100.0	100.0

Asia; 18 (11%) occurred in South America; and 17 (10.4%) occurred in the Middle East.

Table XXV demonstrates that 157 (95.7%) of the cases were resolved without loss of life and only 7 (4.3%) cases involved death.

Table XXVI indicates that in 87.2% (143 cases) of these cases there were no injuries and in 12.8% (21 cases) injuries occurred.

3. Group Hijackings

Group hijackings in this context refer to those incidents in which an organized terrorist or politically motivated group carried out the attack.

Yearly hijacking for an eleven year period from 1980 to 1990 demonstrates that the years 1980 and 1981 had the highest number of group hijackings and in 1989 and 1990 there were no incidents. This is likely due to improvements in airport security and the end of the cold war. (See Table XXVII)

TABLE XXIV

GEOGRAPHICAL LOCATION OF STARTING INDIVIDUAL HIJACKINGS 1980-1990

			Cumulative
	Frequency	Percent	Percent
1. MIDDLE EAST	17	10.4	10.4
2. EUROPE	51	31.1	41.5
3. AFRICA	6	3.7	45.1
4. ASIA	20	12.2	57.3
5. NORTH AMERICA	51	31.1	88.4
6. SOUTH AMERICA	18	11.0	99.4
7. OTHER	1	.6	100.0
	-----	-----	-----
TOTAL	164	100.0	100.0

TABLE XXV
DEATHS IN INDIVIDUAL HIJACKINGS 1980-1990

	Frequency	Percent	Cumulative Percent
NO DEATH	157	95.7	95.7
DEATH	7	4.3	100.0
	-----	-----	
TOTAL	164	100.0	
Valid Cases	164	Missing Cases	0

TABLE XXVI
INJURIES IN INDIVIDUAL HIJACKINGS 1980-1990

	Frequency	Percent	Cumulative Percent
NO INJURIES	143	87.2	87.2
INJURIES OCCURRED	21	12.8	100.0
	-----	-----	
TOTAL	164	100.0	

TABLE XXVII
GROUP HIJACKINGS BY YEAR 1980-1990

YEAR	Frequency	Percent	Cumulative Percent
1980	9	20.5	20.5
1981	9	20.5	40.9
1982	4	9.1	50.0
1983	3	6.8	56.8
1984	6	13.6	70.5
1985	5	11.4	81.8
1986	4	9.1	90.9
1987	2	4.5	95.5
1988	2	4.5	100.0
TOTAL	----- 44		

An analysis of hijacking over time indicates that group hijacking occurred more frequently in November, December and January, with April and May being the months with the lowest number of incidents. November, December, and January each had six cases. This three month period accounts for 40.8% of all cases. These months contain the holidays major holiday periods in which air traffic is at its highest. The summer months (May, June, and July) accounted for 20.4% (9 cases) of the incidents. (See Table XXVIII)

Table XXIV indicates that 81.8% (36 cases) of the group hijacking incidents were initiated while the aircraft was on the ground and only eight (18.2%) were committed while aircraft was in flight.

Firearms and explosives were used together in 18 hijacking cases (46.2%). Firearms alone were used in 9 cases (23.1%) and explosives alone were used in one case (2.6%). Combined use of firearms and explosives are found in 71.8% (28 cases) of the incidents. Knives were used in two cases (5.1%). Of particular interest is the fact that fake or simulated weapons were used in only two incidents, or 5.1% of the total cases. See Table XXX) This compares with the use of fake or simulated weapons in 22.1% of the "individual" hijackings.

TABLE XXVIII
 GROUP HIJACKINGS BY MONTH 1980-1990

	Frequency	Percent	Cumulative Percent
JANUARY	6	13.6	13.6
FEBRUARY	4	9.1	22.7
MARCH	4	9.1	31.8
APRIL	1	2.3	34.1
MAY	1	2.3	36.4
JUNE	4	9.1	45.5
JULY	4	9.1	54.5
AUGUST	2	4.5	59.1
SEPTEMBER	2	4.5	63.6
OCTOBER	4	9.1	72.7
NOVEMBER	6	13.6	86.4
DECEMBER	6	13.6	100.0

TOTAL	44		

TABLE XXVIV
 LOCATIONS OF GROUP HIJACKINGS 1980-1990

	Value	Frequency	Percent	Cumulative Percent
ON GROUND	1	36	81.8	81.8
IN THE AIR	2	8	18.2	100.0
		-----	-----	
Total		44	100.0	100.0

TABLE XXX
WEAPONS USED IN GROUP HIJACKINGS 1980-1990

	Frequency	Percent	Percent	Cumulative Percent
FIREARMS AND EXPLOSIVES	18	40.9	46.2	46.2
FIREARMS	9	20.5	23.1	69.2
EXPLOSIVES	1	2.3	2.6	71.8
KNIVES	2	4.5	5.1	76.9
FAKE-SIMULATED WEAPONS	2	4.5	5.1	82.1
OTHER	7	15.9	17.9	100.0
MISSING	5	11.4		

TOTAL	44	100.0		
Valid Cases	39	Missing Cases	5	

Eight hijacking cases, which account for 18.5% of the total cases, were committed by one person and 33 cases, accounting for 80.5% were committed by two or more persons. (See table XXXI)

Table XXXIII indicates that 25 hijacking cases (56.8%) were resolved by negotiation and 16 cases (36.4%) were resolved by using an assault team. When compared with those cases involving "individual" attacks, force is more likely to be used to resolve "group" hijackings.

Negotiation was successful in 71.1% of the "individual" cases, and only 36.4% of the "group" cases.

Table XXXIII indicates that ten hijacking cases took place in Europe (22.7%); one case in North America (2.3%); nine cases (20.5%) in Asia; 11 (25%) in South America; and ten (22.5%) in the Middle East with 10 cases (22.7%).

Table XXXIV demonstrates that 3 hijackings (6.8%) were committed by people who wanted to escape from one country to another. Political motives were involved in 30 (68.2%) cases -- to free prisoners (15 cases, 34.1%) or other political reasons (15 cases, 34.1%). The table also indicates that only 3 (6.8%) cases were committed by ordinary or non-political criminals for a monetary gain.

TABLE XXXI

NUMBER OF HIJACKERS IN GROUP HIJACKINGS 1980-1990

	Frequency	Percent	Percent	Cumulative Percent
ONE HIJACKER	8	18.2	19.5	19.5
MORE THAN ONE HIJACK	33	75.0	80.5	100.0
MISSING	3	6.8		
	-----	-----		
TOTAL	44	100.0		
Valid Cases	41	Missing Cases	3	

TABLE XXXII
 WAYS OF RESOLVING GROUP HIJACKINGS 1980-1990

	Frequency	Percent	Percent	Cumulative Percent
BY NEGOTIATION	25	56.8	56.8	56.8
USING ASSAULT TEAM	16	36.4	36.4	93.2
OTHER	3	6.8	6.8	100.0
	-----	-----	-----	
TOTAL	44	100.0	100.0	

TABLE XXXIII
 GEOGRAPHICAL LOCATIONS OF
 STARTING GROUP HIJACKINGS 1980-1990

	Frequency	Percent	Cumulative Percent
MIDDLE EAST	10	22.7	22.7
EUROPE	10	22.7	45.5
AFRICA	3	6.8	52.3
ASIA	9	20.5	72.7
NORTH AMERICA	1	2.3	75.0
SOUTH AMERICA	11	25.0	100.0
	-----	-----	
TOTAL	44	100.0	
Valid Cases	44	Missing Cases	0

TABLE XXXIV
 MOTIVES BEHIND GROUP HIJACKINGS 1980-1990

	Frequency	Percent	Cumulative Percent
ESCAPE FROM A COUNTRY	3	6.8	6.8
CRIMINAL ACTIVITY	3	6.8	13.6
FREE POLITICAL PRISONERS	15	34.1	47.7
POLITICAL REASONS	15	34.1	81.8
OTHER	8	18.2	100.0
	-----	-----	
TOTAL	44	100.0	100.0
Valid Cases	44	Missing Cases	0

Table XXXV demonstrates that in 86.4% (38 cases) of the incidents resolution occurred without loss of life. In six cases (13.6%) at least one person died.

Table XXXVI indicates that in 72.1% (31 cases) of the incidents there were no injuries and in 27.9% (12 cases) injuries occurred.

4. Violence on Board the Aircraft

Injuries occurred whether negotiation or using force were utilized in resolving hijackings. However, injuries occurred on a larger scale when force was used to resolve the incident. Injuries occurred in ten cases of the 140 incidents (7.1%) when negotiations were used, and in 23 (35.9%) of the 64 cases where force was used. (See Table XXXVII)

When the hijacking incident was resolved by negotiation, 130 of 140 incidents ended without involving injuries and 10 incidents ended with injuries. (See Table XXXVII)

When the hijacking was resolved by using force, 41 incidents ended without injuries and there were injuries in 23 incidents. (See Table XXXVII)

Deaths also occurred whether negotiation or the use of force were used in resolving hijackings. However, death occurred in larger scale when force was utilized. Death occurred in four out of 140 incidents (2.8%) when negotiations were used and nine cases out of 65 (13.8%) when force was used. (See Table XXXVII)

The results of this study indicate that hijacking incidents are more likely to be ended without injury when negotiation rather than force is used. However, one cannot assume from this data that using force causes more injuries and deaths, because injuries and/or deaths may occurred before or during negotiations. This may have led authorities to use force in an attempt to prevent further violence.

Injuries occurred whether one or more hijackers was involved, but injuries were less likely to occur when there was only one hijacker.

TABLE XXXV

DEATHS IN GROUP HIJACKINGS 1980-1990

	Frequency	Percent	Cumulative Percent
NO DEATH	38	86.4	86.4
DEATH	6	13.6	100.0
	-----	-----	
TOTAL	44	100.0	
Valid Cases	44	Missing Cases	0

TABLE XXXVI

INJURIES IN GROUP HIJACKINGS 1980-1990

	Frequency	Percent	Percent	Cumulative Percent
NO INJURIES	31	70.5	72.1	72.1
INJURIES OCCURRED	12	27.3	27.9	100.0
MISSING	1	2.3		
	-----	-----	-----	
TOTAL	44	100.0	100.0	
Valid Cases	43		Missing Cases	1

TABLE XXXVII

INJURIES AND WAYS OF RESOLVING HIJACKING 1980-1990

	Count	BY NEGOTIATION 1	USING FORCE 2	OTHER 3	Row Total
INJURIES	1	130	41	3	174
NO INJURIES	2	10	23		33
	Column Total	140 67.6	64 30.9	3 1.4	207 100.0

Number of Missing Observations = 1

TABLE XXXVIII
DEATH AND WAYS OF RESOLVING HIJACKING 1980-1990

	Count	NEGO- TIATION 1	USING FORCE 2	OTHER 3	Row Total
KILLED	1	136	56	3	195
NO DEATH	2	4	9		13
DEATH					6.3
Column Total		140 67.3	65 31.3	3 1.4	208 100.0

Number of Missing Observations = 0

When there was one hijacker, deaths occurred in four of the 140 incidents. Deaths occurred in nine of the 65 incidents when more than one hijacker was involved. (See Table XXXX)

Loss of life occurred regardless of the number of hijackers, but injuries occurred with less frequency where only one hijacker was involved. Death occurred in four of 114 incidents involving only one hijacker, but in eight of 90 incidents when more than one hijacker was involved. (See Table XXXVIV)

Injuries occurred in 14 of 97 cases (14.4%) when the motive was to escape from one country to another. Injuries occurred in 11 of 38 cases (22.4%) when a political motive was involved. Injuries occurred in one case of 11 when ordinary criminals were involved, and in one case out of 20 when the suspect was mentally ill people. (See Table XXXXI)

TABLE XXXVIV
INJURIES AND NUMBER OF HIJACKERS 1980-1990

	Count	ONE HI- JACKER 1	MORE THAN ONE 2	Row Total
INJURIES	1	101	69	170
NO INJURIES	2	13	20	33
INJURIES				16.3
Column Total		114	89	203
		56.2	43.8	100.0

Number of Missing Observations = 5

TABLE XXXX

DEATHS AND NUMBER OF HIJACKERS 1980-1990

	Count	ONE HI- JACKER 1	MORE THAN ONE 2	Row Total
KILLED	1	110	82	192
NO DEATH				94.1
DEATH	2	4	8	12
				5.9
Column Total		114	90	204
		55.9	44.1	100.0

Number of Missing Observations = 4

TABLE XXXXI

INJURIES AND MOTIVE OF HIJACKERS 1980-1990

		ESCAPE FROM A COUNTRY	MENTAL ILLNESS	CRIMINALS	IDEOLOGICALLY MOTIVATED HIJACKERS	
INJURIES	1	83	20	11	38	152
NO INJURIES						84.9
INJURIES	2	14	1	1	11	27
						15.1
Column Total		97	21	12	49	179
		54.2	11.7	6.7	27.4	100.0

Number of Missing Observations = 29

Death occurred in 5 of 50 cases (10%) when the motive was political. Death occurred in 3 of 97 cases (3.1%) when the motive was to escape from one country to another. Death occurred in two cases out of 19 cases involving mentally ill people. Finally, there were no deaths in hijackings where hijackers were ordinary criminals. (See Table XXXXII)

Injuries occurred in 22 of 88 cases (22.4%) when firearms and/or explosive were involved. Injuries occurred in four incident out of ten when knives were used. Injuries occurred in only one case out of 44 (2.3%) when fake or simulated weapons were involved. (See Table XXXXIII)

Death occurred in 12 of 98 cases when firearms and/or explosive were involved. Death occurred in one of ten cases when knives were involved. No death occurred where fake or simulated weapons were used. (See Table XXXXIV)

TABLE XXXXII

DEATHS AND MOTIVE OF HIJACKERS 1980-1990

		ESCAPE FROM A COUNTRY	MENTAL ILLNESS	CRIMINALS	IDEOLOGICALLY MOTIVATED HIJACKERS	
KILLED	1	94	19	12	45	170
NO DEATH						94.4
DEATH	2	3	2		5	10
						5.6
Column Total		97	21	12	50	180
		53.9	11.7	6.7	27.8	100.0

Number of Missing Observations = 28

TABLE XXXXIII
 INJURIES AND TYPE OF WEAPONS USED IN HIJACKINGS
 1980-1990

		FIREARMS AND EXPLOSIVES	KNIVES	FAKE- SIMULATED WEAPONS	OTHER	
INJURIES	1	76	6	43	41	166
NO INJURIES						83.4
INJURIES	2	22	4	1	6	33
						16.6
Column		98	10	44	47	199
Total		49.2	5.0	22.1	23.6	100.0

Number of Missing Observations = 9

TABLE XXXIV
DEATHS AND TYPE OF WEAPONS USED IN HIJACKINGS 1980-1990

		FIREARMS AND EXPLOSIVES	KNIVES	FAKE- SIMULATED WEAPONS	OTHER	
KILLED	1	86	9	44	48	187
NO DEATH						93.5
DEATH	2	12	1			13
						6.5
Column		98	10	44	48	200
Total		49.0	5.0	22.0	24.0	100.0

Number of Missing Observations = 8

Injuries occurred in 21 of 164 cases (12.8%) when the hijacker(s) did not belong to an organized group. Injuries occurred in 12 of 43 cases (27.9%) when hijackers were members of a group. (See Table XXXXV)

Death occurred in seven out of 164 cases (4.3%) in individual (non-group) hijacking, and in six cases out of 44 when a group was involved. (See Table XXXXVI)

TABLE XXXXV

INJURIES AND TYPE OF HIJACKING (INDIVIDUAL OR GROUP)
1980-1990

		INDIVIDUAL GROUP HIJACKING HIJACKING		
INJURIES				
	1	143	31	174
NO INJURIES				84.1
	2	21	12	33
INJURIES				15.9
	Column	164	43	207
	Total	79.2	20.8	100.0

Number of Missing Observations = 1

TABLE XXXXVI
 DEATH AND TYPE OF HIJACKING (INDIVIDUAL OR GROUP)
 1980-1990

		INDIVIDUAL HIJACKING	GROUP HIJACKING	
KILLED	1	157	38	195
NO DEATH				93.8
DEATH	2	7	6	13
				6.3
Column		164	44	208
Total		78.8	21.2	100.0

Number of Missing Observations = 0

Appendix C

Convention on the High Seas (Geneva, 1958). Done at Geneva, April 29, 1958. Entered into force September 30, 1962.

Article 14

All States shall cooperate to the fullest possible extent in the repression of piracy on the high seas or in any other place outside the jurisdiction of any State.

Article 15:

Piracy consists of any of the following acts:

1. Any illegal acts of violence, detention or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:

(a) On the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;

(b) Against a ship, aircraft, persons or property in a place outside the jurisdiction of any State;

2. Any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;

3. Any act of inciting or of intentionally facilitating an act described in sub-paragraph 1 or sub-paragraph 2 of this article.

Article 16

The acts of piracy, as defined in article 15, committed by a warship, government ship or government aircraft whose crew has mutinied and taken control of the ship or aircraft are assimilated to acts committed by a private ship.

Article 17

A ship or aircraft is considered a pirate ship or aircraft if it is intended by the persons in dominant control to be used for the purpose of committing one of the acts referred to in Article 15. The same applies if the ship or aircraft has been used to commit any such act, so long as it remains under the control of the persons guilty of that act.

Article 18

A ship or aircraft may retain its nationality although it has become a pirate ship or aircraft. The retention or

loss of nationality is determined by the law of the State from which such nationality was originally derived.

Article 19

On the high seas, or in any other place outside the jurisdiction of any State, every State may seize a pirate ship or aircraft, or a ship taken by piracy and under the control of pirates, and arrest the persons and seize the property on board. The courts of the State which carried out the seizure may decide upon the penalties to be imposed, and may also determine the action to be taken with regard to the ships, aircraft or property, subject to the rights of third parties acting in good faith.

Article 20

Where the seizure of a ship or aircraft on suspicion of piracy has been effected without adequate grounds, the State making the seizure shall be liable to the State the nationality of which is possessed by the ship or aircraft, for any loss or damage caused by the seizure.

Article 21

A seizure on account of piracy may only be carried out by warships or military aircraft, or other ships or aircraft on government service authorized to that effect.

Article 22

1. Except where acts of interference derive from powers conferred by treaty, a warship which encounters a foreign merchant ship on the high seas is not justified in boarding her unless there is reasonable ground for suspecting:

- (a) That the ship is engaged in piracy; or
- (b) That the ship is engaged in the slave trade; or
- (c) That, though flying a foreign flag or refusing to show its flag, the ship is, in reality, of the same nationality as the warship.

2. In the cases provided for in sub-paragraphs (a), (b), and (c) above, the warship may proceed to verify the ship's right to fly its flag. To this end, it may send a boat under the command of an officer to the suspected ship. If suspicion remains after the documents have been checked, it may proceed to a further examination on board the ship, which must be carried out with all possible consideration.

3. If the suspicions prove to be unfounded, and provided that the ship boarded has not committed any act justifying them, it shall be compensated for any loss or damage that may have been sustained.

Appendix D

Convention on Offenses and Certain Other Acts Committed on Board Aircraft, Tokyo, September 14, 1963 (International Civil Aviation Organization, 1987).

Chapter I-Scope of the Convention

Article 1

1. This Convention shall apply in respect of:
 - a) offenses against penal law
 - b) acts which, whether or not they are offenses, may or do jeopardize the safety of the aircraft or of persons or property therein or which jeopardize good order and discipline on board.
2. Except as provided in Chapter III, this Convention shall apply in respect of offenses committed or acts done by a person on board any aircraft registered in a Contracting State, while that aircraft is in flight or on the surface of the high seas or of any other area outside the territory of any State.
3. for the purposes of this Convention, an air craft is considered to be in flight from the moment when power is applied for the purpose of take-off until the moment when the landing run ends.
4. This Convention shall not apply to aircraft used in military, customs or police services.

Article 2

Without prejudice to the provisions of Article 4 and except when the safety of the aircraft or of persons or property on board so requires, no provision of this convention shall be interpreted as authorizing or requiring any action in respect of offenses against penal laws of a political nature or those based on racial or religious discrimination.

Chapter II-Jurisdiction

Article 3

1. The State of registration of the aircraft is competent to exercise jurisdiction over offenses and acts committed on board.
2. Each Contracting State shall take such measures as may be necessary to establish its jurisdiction as the State of registration over offenses committed on board aircraft registered in such State.
3. This Convention does not exclude any criminal jurisdiction exercised in accordance with national law.

Article 4

A Contracting State which is not the State of registration may not interfere with an aircraft in flight in order to exercise its criminal jurisdiction over an offence committed on board except in the following cases:

a) the offence has effect on the territory of such State;

b) the offence has been committed by or against a national or permanent resident of such State.

c) the offence is against the security of such State;

d) the offence consists of a breach of any rules or regulations relating to the flight or manoeuvre of aircraft in force in such State;

e) the exercise of jurisdiction is necessary to ensure the observance of any obligation of such State under a multilateral international agreement.

Chapter III-Powers of the aircraft commander

Article 5

1. The provisions of this Chapter shall not apply to offenses and acts committed or about to be committed by a person on board an aircraft in flight in the airspace of the State of registration or over the high seas or any other area outside the territory of any State unless the last point of take-off or the next point of intended landing is situated in a State other than that of registration, or the aircraft subsequently flies in the airspace of a State other than that of registration with such person still on board.

2. Notwithstanding the provisions of Article 1, paragraph 3, an aircraft shall for the purposes of this Chapter, be considered to be in flight at any time from the moment when all its external doors are closed following embarkation until the moment when any such door is opened for disembarkation. In the case of a forced landing, the provisions of this Chapter shall continue to apply with respect to offenses and acts committed on board until competent authorities of a State take over the responsibility for the aircraft and for the persons and property on board.

Article 6

1. The aircraft commander may, when he has reasonable grounds to believe that a person has committed, or is about to commit, on board the aircraft, an offence or act contemplated in Article I, paragraph I, impose upon such

person reasonable measures including restraint which are necessary:

- a) to protect the safety of the aircraft or of persons or property therein; or
- b) to maintain good order and discipline on board; or
- c) to enable him to deliver such person to competent authorities or to disembark him in accordance with the provisions of this Chapter.

2. The aircraft commander may require or authorize the assistance of other crew members and may request or authorize, but not require, the assistance of passengers to restrain any person whom he is entitled to restrain. Any crew member or passenger may also take reasonable preventive measures without such authorization when he has reasonable grounds to believe that such action is immediately necessary to protect the safety of the aircraft, or of persons or property therein.

Article 7

1. Measures of restraint imposed upon a person in accordance with Article 6 shall not be continued beyond any point at which the aircraft lands unless:

- a) such point is in the territory of a non-Contracting State and its authorities refuse to permit disembarkation of that person or those measures have been imposed in accordance with Article 6, paragraph I c) in order to enable his delivery to competent authorities;
- b) the aircraft makes a forced landing and the aircraft commander is unable to deliver that person to competent authorities; or
- c) that person agrees to onward carriage under restraint.

2. The aircraft commander shall as soon as practicable, and if possible before landing in the territory of a State with a person on board who has been placed under restraint in accordance with the provisions of Article 6, notify the authorities of such State of the fact that a person on board is under restraint and of the reasons for such restraint.

Article 8

1. The aircraft commander may, in so far as it is necessary for the purpose of subparagraph a) or b) or paragraph I of article 6, disembark in the territory of any State in which the aircraft lands any person who he has reasonable grounds to believe has committed, or is about to commit, on board the aircraft an act contemplated in Article I, paragraph I b).

2. The aircraft commander shall report to the authorities of the State in which he disembarks any person pursuant to this Article, the fact of, and the reasons for, such disembarkation.

Article 9

1. The aircraft commander may deliver to the competent authorities of any Contracting State in the territory of which the aircraft lands any person whom he has reasonable grounds to believe has committed on board the aircraft an act which, in his opinion, is a serious offence according to the penal law of the State of registration of the aircraft.

2. The aircraft commander shall as soon as practicable and if possible before landing in the territory of a Contracting State with a person on board whom the aircraft commander intends to deliver in accordance with the preceding paragraph, notify the authorities of such State of his intention to deliver such person and the reasons therefor.

3. The aircraft commander shall furnish the authorities to whom any suspected offender is delivered in accordance with the provisions of this Article with evidence and information which, under the law of the State of registration of the aircraft, are lawfully in his possession.

Article 10

For actions taken in accordance with this Convention, neither the aircraft commander, any other member of the crew, any passenger, the owner or operator of the aircraft, nor the person on whose behalf the flight was performed shall be held responsible in any proceeding on account of the treatment undergone by the person against whom the actions were taken.

Chapter IV-Unlawful Seizure of Aircraft

Article 11

1. When a person on board has unlawfully committed by force or threat thereof an act of interference, seizure or other wrongful exercise of control of an aircraft in flight or when such an act is about to be committed, Contracting States shall take all appropriate measures to restore control of the aircraft to its lawful commander or to preserve his control of the aircraft.

2. In the cases contemplated in the preceding paragraph, the Contracting State in which the aircraft lands shall permit its passengers and crew to continue their journey as soon as practicable, and shall return the aircraft and its cargo to the other persons lawfully entitled to possession.

Chapter V-Powers and Duties of States

Article 12

Any Contracting State shall allow the commander of an aircraft registered in another Contracting State to disembark any person pursuant to Article 8, paragraph 1.

Article 13

1. Any Contracting State shall take delivery of any person whom the aircraft commander delivers pursuant to Article 9, paragraph 1.

2. Upon being satisfied that the circumstances so warrant, any Contracting State shall take custody or other measures to ensure the presence of any person suspected of an act contemplated in Article II, paragraph I and of any person of whom it has taken delivery. The custody and other measures shall be as provided in the law of the State but may only be continued for such time as is reasonably necessary to enable any criminal or extradition proceedings to be instituted.

3. Any person in custody pursuant to the previous paragraph shall be assisted in communication immediately with the nearest appropriate representative of the State of which he is a national.

4. Any Contracting State, to which a person is delivered pursuant to Article 9, paragraph I, or in whose territory an aircraft lands following the commission of an act contemplated in Article II, paragraph I, shall immediately make a preliminary enquiry into the facts.

5. When a State, pursuant to this Article, has taken a person into custody, it shall immediately notify the State of registration of the aircraft and the State of nationality of the detained person and, if it considers it advisable, any other interested State of the fact such person is in custody and of the circumstances which warrant his detention. The State which makes the preliminary enquiry contemplated in paragraph 4 of this Article shall promptly report its findings to the said States and shall indicate whether it intends to exercise jurisdiction.

Appendix E

Convention on the Suppression of Unlawful Seizure of Aircraft (Hijacking), The Hague, December 16, 1970, (International Civil Aviation Organization, 1987).

Article 1

Any person who on board an aircraft in flight:

a) unlawfully, by force or thereat thereof, or by any other form of intimidation, seizes, or exercises control of, that aircraft, or attempts to perform any such act, or

b) is an accomplice of a person who performs or attempts to perform any such act commits an offence (hereinafter referred to as "the offence").

Article 2

Each Contracting State undertakes to make the offence punishable by severe penalties.

Article 3

1. For the purposes of this Convention, an aircraft is considered to be in flight at any time from the moment when all its external doors are closed following embarkation. In the case of a forced landing, the flight shall be deemed to continue until the competent authorities take over the responsibility for the aircraft and for persons and property on board.

2. This Convention shall not apply to aircraft used in military, customs or police services.

3. This Convention shall apply only if the place of take-off or the place of actual landing of the aircraft on board which the offence is committed is situated outside the territory of the State of registration of that aircraft; it shall be immaterial whether the aircraft is engaged in an international or domestic flight.

4. In the cases mentioned in Article 5, this Convention shall not apply if the place of take-off and the place of actual landing of the aircraft on board which the offence is committed are situated within the territory of the same State where that State is one of those referred to in that Article.

5. Notwithstanding paragraphs 3 and 4 of this Article, Articles 6, 7, 8 and 10 shall apply whatever the place of

take-off or the place of actual landing of the aircraft, if the offender or the alleged offender is found in the territory of a State other than the State of registration of the aircraft.

Article 4

1. Each Contracting State shall take such measures as may be necessary to establish its jurisdiction over the offence and any other act of violence against passengers or crew committed by the alleged offender in connection with the offence, in the following cases:

a) when the offence is committed on board an aircraft registered in that State;

b) when the aircraft on board which the offence is committed lands in its territory with the alleged offender still on board;

c) when the offence is committed on board an aircraft leased without crew to a lease who has his principal place of business or, if the lessee has no such place of business, his permanent residence, in that State.

2. Each Contracting State shall likewise take such measures as may be necessary to establish its jurisdiction over the offence in the case where the alleged offender is present in its territory and it does not extradite him pursuant to Article 8 to any of the States mentioned in paragraph 1 of this Article.

3. This Convention does not exclude any criminal jurisdiction exercised in accordance with national law.

Article 6

1. Upon being satisfied that the circumstances so warrant, any Contracting State in the territory of which the offender or the alleged offender is present, shall take him into custody or take other measures to ensure his presence. The custody and other measures shall be as provided in the law of that State but may only be continued for such time as is necessary to enable any criminal or extradition proceedings to be instituted.

2. Such State shall immediately make a preliminary enquiry into the facts.

3. any person in custody pursuant to Paragraph 1 of this Article shall be assisted in communicating immediately with the nearest appropriate representative of the State of which he is a national.

4. When a State, pursuant to this Article, has taken a person into custody, it shall immediately notify the State of registration of the aircraft, the State mentioned in Article 4, paragraph 1 (c), the State of

nationality of the detained person and, if it considers it advisable, any other interested States of the fact that such person is in custody and of the circumstances which warrant his detention. The State which makes the preliminary enquiry contemplated in paragraph 2 of this article shall promptly report its findings to the said States and shall indicate whether it intends to exercise jurisdiction.

Article 7

The Contracting State in the territory of which the alleged offender is found shall, if it does not extradite him, be obliged, without exception whatsoever and whether or not the offence was committed in its territory, to submit the case to its competent authorities for the purpose of prosecution. Those authorities shall take their decision in the same manner as in the case of any ordinary offence of a serious nature under the law of that State.

Article 8

1. The offence shall be deemed to be included as an extraditable offence in any extradition treaty existing between Contracting States. Contracting States undertake to include the offence as an extraditable offence in every extradition treaty to be concluded between them.
2. If a Contracting State which makes extradition conditional on the existence of a treaty receives a request for extradition treaty, it may at its option consider this Convention as the legal basis for extradition in respect of the offence. Extradition shall be subject to the other conditions provided by the law of the requested State.
3. Contracting States which do not make extradition conditional on the existence of a treaty shall recognize the offence as an extraditable offence between themselves subject to the conditions provided by the law of the requested State.
4. The offence shall be treated, for the purpose of extradition between Contracting States, as if it had been committed not only in the place in which it occurred but also in the territories of the States required to establish their jurisdiction in accordance with Article 4, paragraph 1.

Article 9

1. When any of the acts mentioned in Article 1 (a) has occurred or is about to occur, Contracting State shall take all appropriate measures to restore control of the aircraft to its lawful commander or to preserve his control of the aircraft.

2. In the cases contemplated by the preceding paragraph, any Contracting State in which the aircraft or its passengers or crew are present shall facilitate the continuation of the journey of the passengers and crew as soon as practicable, and shall without delay return the aircraft and its cargo to the persons lawfully entitled to possession.

Article 10

1. Contracting State shall afford one another the greatest measure of assistance in connection with criminal proceedings brought in respect of the offence and other acts mentioned in Article 4. The law of the State requested shall apply in all cases.

2. The provisions of paragraph 1 of this Article shall not affect obligations under any other treaty, bilateral or multilateral, which governs or will govern, in whole or in part, mutual assistance in criminal matters.

Article 11

Each Contracting State shall in accordance with its national law report the Council of the International Civil Aviation Organization as promptly as possible any relevant information in its possession concerning:

- a) the circumstances of the offence;
- b) the action taken pursuant to Article 9;
- c) the measures taken in relation to the offender or the alleged offender, and, in particular, the results of any extradition proceeding or other legal proceeding.

Article 12

1. Any dispute between two or more Contracting States concerning the interpretation or application of this Convention which cannot be settled through negotiation, shall, at the request of one of them, be submitted to arbitration. If within six months from the date of the request for arbitration the Parties are unable to agree on the organization of the arbitration, any one of these Parties may refer the dispute to the international Court of Justice by request in conformity with the Statute of the Court.

2. Each State may at the time of signature or ratification of this Convention or accession thereto, declare that it does not consider itself bound by the preceding paragraph. The other Contracting States shall not be bound by the preceding paragraph with respect to any Contracting State having made such a reservation.

Article 13

1. This Convention shall be open for signature at The Hague on 16 December 1970, by States participating in the International Conference on Air law held at the Hague from 1 to 16 December 1970 (hereinafter referred to as The Hague Conference). After 31 December 1970, the Convention shall be open to all States for Signature in Moscow, London and Washington. Any State which does not sign this Convention before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time.

2. This Convention shall subject to ratification by the signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, which are hereby designated the Depositary Governments.

3. This Convention shall enter into force thirty days following the date of the deposit of instruments of ratification by ten States signatory to this Convention which participated in The Hague Conference.

4. For other States, this Convention shall enter into force on the date of entry into force of this Convention in accordance with paragraph 3 of this Article, or thirty days following the date of deposit of their instruments of ratification or accession, whichever is later.

5. The Depositary Governments shall inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or accession, the date of entry into force of this Convention, and other notice.

6. As soon as this Convention comes into force, it shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations and pursuant to Article 83 of the Convention on International Civil Aviation (Chicago, 1944).

Article 14

1. Any Contracting State may denounce this Convention by written notification to the Depositary Governments.

2. Denunciation shall take effect six months following the date on which notification is received by the Depositary Governments.

In witness whereof the undersigned Plenipotentiaries, being duly authorized thereto by their Governments, have signed this Convention.

Appendix F

Convention on the Suppression of Unlawful Acts Against the Safety of Civil Aviation (Sabotage), Montreal, September 23, 1971, (International Civil Aviation Organization, 1987).

Article 1

1. Any person commits an offence if he unlawfully and intentionally:

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 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.

2. Any person also commits an offence if he:

a) attempts to commit any of the offenses mentioned in paragraph 1 of this Article; or

b) is an accomplice of a person who commits or attempts to commit any such offence.

Article 2

For the purposes of this Convention:

a) an aircraft is considered to be in flight at any time from the moment when all its external door are closed following embarkation until the moment when any such door is opened for disembarkation; in the case of a forced landing, the flight shall be deemed to continue until the competent authorities take over responsibility for the aircraft and for persons and property on board;

b) an aircraft is considered to be in service from the beginning of the pre-flight preparation of the aircraft by ground personnel or by the crew for a specific flight until twenty-four hours after any landing; the period of service shall, in any event, extend for the entire period during which the aircraft is in flight as defined in paragraph (a) of this Article.

Article 3

Each Contracting State undertakes to make the offenses mentioned in Article 1 punishable by severe penalties.

Article 4

1. This Convention shall not apply to aircraft used in military, customs or police services.

2. In the cases contemplated in subparagraph (a), (b), (c) and (e) of paragraph 1 of Article 1, this Convention shall apply, irrespective of whether the aircraft is engaged in an international or domestic flight, only if:

a) the place of take-off or landing, actual or intended, of the aircraft is situated outside the territory of the State of registration of that aircraft; or

b) the offence is committed in the territory of a State other than the State of registration of the Aircraft.

3. Notwithstanding paragraph 2 of this Article, in the cases contemplated in subparagraphs (a), (b), (c) and (e) of paragraph 1 of Article 1, this Convention shall also apply if the offender or the alleged offender is found in the territory of a State other than the State of registration of the aircraft.

4. With respect to the States mentioned in Article 9 and in the cases mentioned in subparagraph (a), (b), (c) and (e) of paragraph 1 of Article 1, this Convention shall not apply if the places referred to in subparagraph (a) of paragraph 2 of this Article are situated within the territory of a State other than that State.

5. In the cases contemplated in subparagraph (b) of paragraph 1 of Article 1, this Convention shall apply only if the air navigation facilities are used in international air navigation.

6. The provisions of paragraphs 2, 3, 4 and 5 of this Article shall also apply in the cases contemplated in paragraph 2 of Article 1.

Article 5

1. Each Contracting State shall take such measures as may be necessary to establish its jurisdiction over the offenses in the following cases

a) when the offence is committed in the territory of that State;

b) when the offence is committed against or on board an aircraft registered in that State;

c) when the aircraft on board which the offence is

committed lands in its territory with the alleged offender still on board;

d) when the offence is committed against or on board an aircraft leased without crew to a lease who has his principal place of business or, if the lessee has no such place of business, his permanent residence, in that State.

2. Each Contracting State shall likewise take such measures as may be necessary to establish its jurisdiction over the offenses mentioned in Article 1, paragraph 1 (a), (b) and (c), and in Article 1, paragraph 2, in so far as that paragraph relates to those offenses, in the case where the alleged offender is present in its territory and it does not extradite him pursuant to Article 8 to any of The States mentioned in paragraph 1 of this Article.

3. This Convention does not exclude any criminal jurisdiction exercised in accordance with national law.

Article 6

1. Upon being satisfied that the circumstances so warrant, any Contracting State in the territory of which the offender or the alleged offender is present, shall take him into custody or take other measures to ensure his presence. The custody and other measures shall be as provided in the law of that State but may only be continued for such time as is necessary to enable any criminal or extradition proceedings to be instituted.

2. Such State shall immediately make a preliminary enquiry into the facts.

3. Any person in custody pursuant to paragraph 1 of this Article shall be assisted in communicating immediately with the nearest appropriate representative of the State of which he is a national.

4. When a State, pursuant to this Article, has taken a person into custody, it shall immediately notify the States mentioned in Article 5, paragraph 1, the State of nationality of the detained person and, if it considers it advisable, any other interested States of the fact that such person is in custody and of the circumstances which warrant his detention. The State which makes the preliminary enquiry contemplated in paragraph 2 of this Article shall promptly report its findings to the said States and shall indicate whether it intends to exercise jurisdiction.

Article 7

The Contracting State in the territory of which the alleged offender is found shall, if it does not extradite him, be obliged, without exception whatsoever and whether or not the offence was committed in its territory, to submit the case to its competent authorities for the

purpose of prosecution. Those authorities shall take their decision in the same manner as in the case of any ordinary offence of a serious nature under the law of that State.

Article 8

1. The offence shall be deemed to be included as extraditable offenses in any extradition treaty existing between Contracting States. Contracting States undertake to include the offenses as extraditable offenses in every extradition treaty to be concluded between them.

2. If a Contracting State which makes extradition conditional on the existence of a treaty receives a request for extradition from another Contracting States with which it has no extradition treaty, it may at its option consider this Convention as the legal basis for extradition in respect of the offenses. Extradition shall be subject to the other conditions provided by the law of the requested State.

3. Contracting States which do not make extradition conditional on the existence of a treaty shall recognize the offenses as extraditable offenses between themselves subject to the conditions provided by the law of the requested State.

4. Each of the offenses shall be treated, for the purpose of extradition between Contracting States, as if it had been committed not only in the place in which it occurred but also in the territories of the States required to establish their jurisdiction in accordance with Article 5, paragraph 1 (b), (c) and (b).

Article 9

The Contracting States which establish joint air transport operating organizations or international operating agencies, which operate aircraft which are subject to joint or international registration shall, by appropriate means, designate for each aircraft the State of registration for the purpose of this Convention and shall give notice thereof to the International Civil Aviation Organization which shall communicate the notice to all States Parties to this Convention.

Article 10

1. Contracting States shall, in accordance with international and national law, endeavor to take all practicable measures for the purpose of preventing the offenses mentioned in Article 1.

2. When, due to the commission of one of the offenses mentioned in Article 1, a flight has been delayed or

interrupted, any Contracting, State in whose territory the aircraft or passengers or crew are present shall facilitate the continuation of the journey of the passengers and crew as soon as practicable, and shall without delay return the aircraft and its cargo to the persons lawfully entitled to possession.

Article 11

1. Contracting States shall afford one another the greatest measure of assistance in connection with criminal proceedings brought in respect of the offenses. The law of the State requested shall apply in all cases.
2. The provisions of paragraph 1 of this Article shall not affect obligations under any other treaty, bilateral or multilateral, which governs or will govern, in whole or in part, mutual assistance in criminal matters.

Article 12

Any Contracting State having reason to believe that one of the offenses mentioned in Article 1 will be committed shall, in accordance with its national law, would be the States mentioned in Article 5, paragraph 1.

Article 13

Each Contracting State shall in accordance with its national law report to the Council of the International Civil Aviation Organization as promptly as possible any relevant information in its possession concerning:

- a) the circumstances of the offenses;
- b) the action taken pursuant to Article 10, paragraph 2;
- c) the measures taken in relation to the offender or the alleged offender and, in particular, the results of any extradition proceedings or other legal proceedings.

Article 14

1. Any dispute between two or more Contracting States concerning the interpretation or application of this Convention which cannot be settled through negotiation, shall, at the request of one of them, be submitted to arbitration. If within six months from the date of the request for arbitration in Parties are unable to agree on the organization of the arbitration, any one of those Parties may refer the dispute to the International Court of Justice by request in conformity with the Statute of the Court.
2. Each State may at the time of signature or ratification of this Convention or accession thereto,

declare that it does not consider itself bound by preceding paragraph with respect to any Contracting State having made such a reservation.

3. Any Contracting State having made a reservation in accordance with the preceding paragraph may at any time withdraw this reservation by notification to the Depositary Governments.

Article 15

1. This Convention shall be open for signature at Montreal on 23 September 1971, by States participating in the International Conference on Air Law held at Montreal from 8 to 23 September 1971 (hereinafter referred to as the Montreal Conference). After 10 October 1971, the Convention shall be open to all States for signature in Moscow, London and Washington. Any State which does not sign this Convention before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time.

2. This Convention shall be subject to ratification by the signatory States. Instruments of ratification and instruments accession shall be deposited with the Governments of the Union of Soviet socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, which are hereby designated the Depositary Governments.

3. This Convention shall enter into force thirty days following the date of the deposit of instruments ratification by ten States signatory to this Convention which participated in the Montreal Conference.

4. For other States, this Convention shall enter into force on the date of entry into force of this Convention in accordance with paragraph 3 of this Article, or thirty days following the date of deposit of their instruments of ratification or accession, whichever is later.

Appendix G

SYNOPTIC LIST OF STATES PARTIES
TO SECURITY CONVENTIONS
(AS AT 31 DECEMBER 1986-INTERNATIONAL
CIVIL AVIATION ORGANIZATION)²⁵

	Tokyo 1963	Hague 1970	Montreal 1971
Afghanistan	x	x	x
Algeria	o	o	o
Angola	o	o	o
Antigua and Barbuda	x	x	x
Argentina	x	x	x
Australia	x	x	x
Austria	x	x	x
Bahamas	x	x	x
Bahrain	x	x	x
Bangladesh	x	x	x
Barbados	x	x	x
Belgium	x	x	x
Benin	o	o	o
Bolivia	x	x	x
Botswana	x	x	x
Brazil	x	x	x
Brunei Darussalam	x	x	x
Bulgaria	o	x	x
Burkina Faso	x	o	x
Burma	o	o	o
Burundi	x	o	o
Cameroon	o	o	x
Canada	x	x	x
Cape Verde	o	x	x
Central African Republic	o	o	o
Chad	x	x	x
Chile	x	x	x
China	x	x	x
Colombia	x	x	x
Comoros	o	o	o
Congo	x	o	o
Costa Rica	x	x	x
Cote d'Ivoire	x	x	x
Cuba	o	o	o
Cyprus	x	x	x
Czechoslovakia	x	x	x
Democratic Kampuchea	o	o	o
Democratic People's Republic of Korea	x	x	x
Democratic Yemen	o	o	o

²⁵ X Indicates parties; o indicates non-parties.

Denmark	X	X	X
Djibouti	O	O	O
Dominican Republic	X	X	X
Ecuador	X	X	X
Egypt	X	X	X
El Salvador	X	X	X
Equatorial Guinea	O	O	O
Ethiopia	X	X	X
Fiji	X	X	X
Finland	X	X	X
France	X	X	X
Gabon	X	X	X
Gambia	X	X	X
Germany, Federal Republic of	X	X	X
Ghana	X	X	X
Greece	X	X	X
Grenada	X	X	X
Guatemala	X	X	X
Guinea	O	X	X
Guinea-Bissau	O	X	X
Guyana	X	X	X
Haiti	X	X	X
Honduras	O	O	O
Hungary	X	X	X
Iceland	X	X	X
India	X	X	X
Indonesia	X	X	X
Iran, Islamic Republic of	X	X	X
Iraq	X	X	X
Ireland	X	X	X
Israel	X	X	X
Italy	X	X	X
Jamaica	X	X	X
Japan	X	X	X
Jordan	X	X	X
Kenya	X	X	X
Kiribati	O	O	O
Kuwait	X	X	X
Lao People's Democratic Republic	X	O	O
Lebanon	X	X	X
Lesotho	X	X	X
Liberia	O	X	X
Libyan Arab Jamahiriya	X	X	X
Luxembourg	X	X	X
Madagascar	X	X	X
Malawi	X	X	X
Malaysia	X	X	X
Maldives	O	O	O
Mali	X	X	X
Malta	O	O	O
Mauritania	X	X	X
Mauritius	X	X	X

Mexico	X	X	X
Monaco	X	X	X
Morocco	X	X	X
Mozambique	O	O	O
Nauru	X	X	X
Nepal	X	X	X
Netherlands, Kingdom of the	X	X	X
New Zealand	X	X	X
Nicaragua	X	X	X
Niger	X	X	X
Nigeria	X	X	X
Norway	X	X	X
Oman	X	X	X
Pakistan	X	X	X
Panama	X	X	X
Papua New Guinea	X	X	X
Paraguay	X	X	X
Peru	X	X	X
Philippines	X	X	X
Poland	X	X	X
Portugal	X	X	X
Qatar	X	X	X
Republic of Korea	X	X	X
Romania	X	X	X
Rwanda	X	O	O
Saint Lucia	X	X	X
Saint Vincent and te Grenadines	O	O	O
Sao tome and Principe	O	O	O
Saudi Arabia	X	X	X
Senegal	X	X	X
Seychelles	X	X	X
Sierra Leone	X	X	X
Singapore	X	X	X
Solomon Islands	X	O	X
Somalia	O	O	O
South Africa	X	X	X
Spain	X	X	X
Sri Lanka	X	X	X
Sudan	O	X	X
Suriname	X	X	X
Swaziland	O	O	O
Sweden	X	X	X
Switzerland	X	X	X
Syrian Arab Republic	X	X	X
Thailand	X	X	X
Togo	X	X	X
Tonga	O	X	X
Trinidad and Tobago	X	X	X
Tunisia	X	X	X
Turkey	X	X	X
Uganda	X	X	X
Union of			

Soviet Socialist Republics	o	x	x
United Arab Emirates	x	x	x
United Kingdom	x	x	x
United Republic of Tanzania	x	x	x
United States	x	x	x
Uruguay	x	x	x
Vanuatu	o	o	o
Venezuela	x	x	x
Viet Nam	x	x	x
Yemen	x	x	x
Youoslavia	x	x	x
Zaire	x	x	x
Zambia	x	o	o
Zimbabwe	o	o	o

CITED LITERATURE

- Aggarwala, Narinder: Air Hijacking: An International Perspective. International Conciliation 585: 7-78, November 1971.
- Alexander, Yonah and Sochor, Eugene: Aerial Piracy and Aviation Security. Dordercht, Martinus Nijhoff Publishers, 1990, p. 102.
- Alexander, Yonah and Sochor, Eugene: Aerial Piracy and Aviation Security. Dordercht, Martinus Nijhoff Publishers, 1990, p. 112.
- Alexander, Yonah and Sochor, Eugene: Aerial Piracy and Aviation Security. Dordercht, Martinus Nijhoff Publishers, 1990, p. 108-110.
- Bassiouni, M. Cherif: International Criminal Law. New York, Transnational Publishers, 1987, Vol II, page 106.
- Bassiouni, M. Cherif: International Criminal Law. New York, Transnational Publishers, 1987, Vol II, page 298.
- Bassiouni, M. Cherif.: International Criminal Law. New York, Transnational Publishers, Inc., 1987, Vol III, page 18.
- Bassiouni, M. Cherif: The Political Offense Exception in Extradition Law and Practice. In: International Terrorism and political Crimes, eds. Bassiouni, M. Cherif, p. 39-43, Springfield Illinois, Charles C. Thomas, 1975.
- Becker, G. S.: Crime and Punishment: an Economic Approach, Journal of Political Economy 76: 169-217, 1968.
- Beyleveld, Deryck: A Bibliography on General Deterrence Research. Franborough, Saxon House, 1980.
- Cauley, Jon and Eric Iksoon Im: Intervention Policy Analysis Of Skyjackings And Other Terrorist Events, American Economic Review 78: 27-31, May, 1988.
- Chicago Convention, Chicago, 1944, (Civil Aviation Organization, 1987).

- Convention on Offenses and Certain Other Acts Committed on Board Aircraft, Tokyo, September 14, 1963 (International Civil Aviation Organization, 1987).
- Convention on the Suppression of Unlawful Seizure of Aircraft (Hijacking), Hague, December 16, 1970, (International Civil Aviation Organization, 1987).
- Convention on the Suppression of Unlawful Acts Against the Safety of Civil Aviation (Sabotage), Montreal, September 23, 1971, (International Civil Aviation Organization, 1987).
- Cook, Philip, J.: Research in Criminal Deterrence: Laying the Groundwork for the Second Decade, Crime and Justice An Annual Review of Research 2: 211-268, the University of Chicago Press, Chicago, 1980.
- Cordes, Bonnie. Jenkins, Brian M., Kellen, Konrad., Bass, Gail., Relles, Daniel., Sater, William., Juncosa, Mario., Fowler, William., Petty, Geraldine.: A Conceptual Framework for Analyzing Terrorist Groups. Santamonica, Rand, June, 1985.
- Ehrlich, I.: Participation in illegitimate activities: a Theoretical and Empirical Investigation, Journal of Political Economy 81: 521-67, 1973.
- Enders, Walter and Sandler, Todd: A Var-Intervention Analysis Of Anti-Terrorism Policies, American Political Science Review 87: 829-844, December, 1993.
- Ezeldin, Ahmed Galal: Terrorism and Political Violence an Egyptian Perspective. Chicago, Office of International Criminal Justice, p. 39-40, 1987.
- Decker, Scott., Wright, Richard, and Logie, Robert: Perceptual Deterrence Among Active Residential Burglars: A Research Note, Criminology, Vol. 31, No. 1, 1993, p. 135-147
- Delaney, Stanton: A Test of Criminal Deterrence Theory: The Effects of Patrol Allocation changes on District-Specific Crime Rates in the City of Chicago, 1987.

- Evans, Alona, E: Aircraft Hijacking: Its Cause and Cure, American Journal of International Law 63: 707-708, October 1969.
- FBI, Annual Report on Terrorism, Washington D.C., 1990.
- Fenello, Michael, J.: Air Hijacking: An International Perspective, International Conciliation 585: 7-78, November, 1971.
- FitzGerald, Gerald, F: Air Hijacking: An International Perspective, International Conciliation 585: 50, November 1971.
- FitzGerald, Gerald, F: Air Hijacking: An International Perspective, International Conciliation 585: 50, November 1971, p. 56.
- FitzGerald, Gerald, F: Air Hijacking: An International Perspective, International Conciliation 585: 50, November 1971, p. 56.
- Grasmick, Harold G., Bursik, Robert J., and Arnekelev, Bruce, J: Reduction in Drunk Driving As A Response To Increased Threats of Shame, Embarrassment, And Legal Sanctions, Criminology, Vol. 31, No. 1, , p. 135-147, 1993.
- Gujarti, Damodar, N: Basic Econometrics. New York, McGraw-Hill Book Company, Second Edition, 1988, p. 14.
- Hughes, David.: FAA Examining Missile Threat, Aviation Week and Space Technology, August 16: 31-32, 1993.
- Kerstetter, Wayne: Practical Problems of Law Enforcement. In: Legal Aspects of International Terrorism, eds. Evans, Alona, E. and Murphy, John, F., Lexington, Lexington Books, 1978.
- Landes, William: An Economic Study of U.S. Aircraft Hijackings 1961-1976, Journal of Law and Economics 21: 1-31, April, 1978.
- Lewis-Beck, Michael, S.: Applied Regression an Introduction. Beverly Hills, Sage Publications, 1983.

- Long, David, E: The Anatomy of Terrorism, New York, Macmillan, Inc., 1990.
- McGuire G. Frank: Security intelligence sourcebook: including who's who in terrorism. Maryland, Silver Spring, 1990.
- McWhinney, Edward, Q. C.: International and National Law, and Community Probed-Solving on Aerial Piracy. Dordrecht, Marinus Nijhoff Publishers, pp 77-94, 1987.
- Mickolus, F. Edward. Sandler, Todd and Murdock, M. Jean. International terrorism in the 1980s a chronology of events. Ames, Iowa State University Press, Vol II, 1984-1987, 1989, p. 216-17).
- Mickolus, F. Edward. Sandler, Todd and Murdock, M. Jean. International terrorism in the 1980s a chronology of events. Ames, Iowa State University Press, Vol II, 1984-1987, 1989, p. 135-36.
- Montreal Protocol, Montreal, (International Civil Aviation Organization, 1987).
- Moore, Kenneth C: Airport, Aircraft and Airline Security, Los Angeles, Security World Publishing Co., Inc., 1976, p. 15.
- Moore, Kenneth C: Airport, Aircraft and Airline Security, Los Angeles, Security World Publishing Co., Inc., 1976, p. 31.
- Morris, Michael: Hostile Actions Against Civil Aviation 10 years 1980-89 and Additional Year 1990 Discussion, Fact and Figure Displays, Incident Details. East Lansing, Air Incident Research, 1991.
- Peter, John, St: Air Piracy, Airport Security, And International Terrorism, Winning the War Against Hijackers, New York, Quorum Books, 1991, P. 2.
- Quade, E. S: Analysis for Public Decisions. Third Edition, New York, North Holland, p. 5, 1989.
- Report of the President's Commission on Aviation Security and Terrorism, a Comprehensive Study and Appraisal of Practices and Policy Options with

Respect to Preventing Terrorist Acts Involving Aviation. Washington D.C., Commission on Aviation Security and Terrorism August, 1989, p.47.

Report of the President's Commission on Aviation Security and Terrorism, a Comprehensive Study and Appraisal of Practices and Policy Options with Respect to Preventing Terrorist Acts Involving Aviation. Washington D.C., Commission on Aviation Security and Terrorism August, 1989, p. 170.

Reuter, News Network, London, 1993.

Rubin, P. Alfred: Current Legal Approaches To International Terrorism, Terrorism 13: 277, New York, 1990.

Sewell, Alan, F.: Political Crime: A Psychologist's Perspective. In: International Criminal Law and Political Crime. eds. Bassiouni, M. Cherif, pp. 11, Charles C. Thomas, Springfield, 1975.

Wallis, Rodney: Combating Air Terrorism. Washington D.C., Brassey's (US) A Division of Maxwell Macmillan, Inc., 1993.

Ward, Richard, H: Countering Terrorism a Manual for Law Enforcement. Chicago, the Office of International Criminal Justice, 1990, p. 1-4.

Ward, Richard, H: The Middle East: A New Page, a paper presented at the Aviation Security Seminar, Frankfurt, Germany, p. 3, 1993.

Welch, Patrick J and Welch, Gerry, F.: Economics Theory and Practice. New York, The Dryden Press A Harcourt Brace Jovanovich College Publisher, 1992.

Wheatcroft, Stephen: The Size and Shape of Future Air Traffic, International air transport in the eighties, Ed. by H.A. Wassenbergh and H.P. van F e n e m a . K l u w e r , N e d e r l a n d s R e r r o e r s w e t e n s c h a p e I n s t i t u t e , 1981. pp. 159.

Wilkinson, Paul: Aviation Security The Fight Against Terrorism, Interdisciplinary Science Reviews 18: 166, 1993.

Wilkinson, Paul: Aviation Security The Fight Against
Terrorism, Interdisciplinary Science Reviews 18:
166, 1993, p. 168.

BIBLIOGRAPHY

- Arey, James.: The Sky Pirates. New York, Scribners, 1972.
- Averbuck, David S.: Hijacking of international aircraft, sepala ekanayake and ex post facto legislation, Sri Lankan Domestic Law Incorporates International Law. Colombo, Marga Institute, 1988.
- Clutterbuck, R.: Kidnap, Hijack, and Extortion: The Response. New York. St. Martin's Press.1987.
- Clyne, Peter.:An Anatomy of Skyjacking. London, Abelard-Schuman, 1973.
- Congress of The United States: Technology Against Terrorism The Federal Effort, Washington D.C., Office of Technology Assessment, 1991.
- Copeland, L.: Traveling Abroad Safely: some tips to give employees. Personnel, Vol. 64, No. 2 February, 1987.
- Darwish, Abdelkarim, A.: A Paper on Aircraft Hijacking in International and National Law, The African Police Bulletin, Cairo, African Research Center, March 1989.
- Darwish, Abdelkarim, A.: Illegal Control of Aircraft and Ships, Masters Thesis, Graduate College, the Police Academy, Cairo, 1986.
- Darwish, Abdelkarim, A.: Combating Hijacking and Piracy, a Paper Presented at the Current Security Issues Symposium, the Police Academy, Cairo, January-February, 1989.
- Darwish, Abdelkarim, A.: Crimes Against Aircraft: International Perspectives, Masters Thesis, University of Illinois at Chicago, Chicago, 1992.
- Dickey, David and Wayne Fuller: The Likelihood Ratio Statistics for Autoregressive Time Series with a Unit Root', Econometrica, 49 (July), 1057-72, 1981.
- Dickey, David and Wayne Fuller: Distribution of the Estimator for Autoregressive Time Series with a Unit Root', Journal of the American

Statistical Association, 74 (June), 427-31, 1979.

Dobson, Alan P.: Peaceful Air Warfare the United States, Britain, and the Politics of International Aviation. Oxford, Clarendon Press, 1991.

....

"Dole Orders Improvements in U.S. Airlines Security Training." Security Systems Digest, Vol. 17, # 26 December (1986).

Evans, Alona, E. and Murphy, John, F.: Aircraft and Aviation Facilities. In: Legal Aspects of International Terrorism, eds. Evans, Alona, E. and Murphy, John, F., pp. 3-148. Lexington, Lexington Books, 1978.

Ezeldin, Ahmed, Galal: Global Terrorism: An Overview. Chicago, Office of International Criminal Justice, 1990.

FAA: Aircraft Hijackings and Other Criminal Acts Against Civil Aviation Statistical and Narrative Reports. Washington D.C., Department of Transportation, 1985.

...

"FAA Cites 27 airlines for Airport Security Lapses." Corporate Security Digest, Vol. 3, # 25 June 26 (1989).

FAA: Civil Aviation Security Europe/Middle East Hijack Incident Review. Washington D.C., Department of Transportation, 1985.

FAA: FAA Review of Security at Foreign International Airports. Washington D.C., Department of Transportation, 1987.

Gidwitz, Betsy.: The Politics of International Air Transport. Lexington, Lexington Books, 1980.

Henkin, Louis., Pugh, Richard, Carawford., Schachter, Oscar., and Smit, Hans : International Law Cases and Materials. Saint Paul, West Publishing Co., Second Edition, 1987.

Henkin, Louis., Pugh, Richard, Carawford., Schachter, Oscar., and Smit, Hans : International Law Basic Documents Supplement. Saint Paul, West Publishing Co., Third Edition, 1993.

- Hewit, Christopher.: The Effectiveness of Anti-Terrorist Policies. Lanham, MD: University Press of America, 1984.
- Hubbard, David G.: The Skyjacker His Flights of Fantasy. New York, Macmillan Company, 1971.
- Hubbard, David G.: Winning Back the Sky a Tactical Analysis of terrorism. Dallas, Saybrook, 1986.
- Hubbard, D. G.: The Skyjacker his flights of fantasy. New York, Macmillan Company. 1971.
- ICAO: Aviation Security: Digest of Current ICAO Policies and actions on the subject of Unlawful Interference with International Civil Aviation and its Facilities. Montreal, International Civil Aviation Organization, 1987
- ICAO: International Standards and Recommended Practices Security Safeguarding International Civil Aviation Against Acts of Unlawful interference Annex 17 to the Convention on International Civil Aviation. Montreal, International Civil Aviation Organization, Third Edition, March, 1986.
- ICAO: Memorandum on ICAO: the story of the international civil. Montreal, International Civil Aviation Organization, 1986.
- ICAO: Statistical Yearbook Civil Aviation Statistics of the World. Montreal, International Civil Aviation Organization, Thirteenth Edition, 1987.
- ICAO: Statistical Yearbook Civil Aviation Statistics of the World. Montreal, International Civil Aviation Organization, Fourteenth Edition, 1988.
- Jiwa, Salim.: The Death of Air India Flight 182. London, Star Books, 1986.
- Joyner, Nancy D.: Aerial Hijacking as an International Crime. New York, Oceana, 1974.
- Kelly, R. J. and Barnathan, J.: Perspectives on Terrorism out on a limb: Executives Abroad. Security Management. Vol. 32, No. 11 November (1988): Pp. 117-127.

Levi, Werner.: Contemporary International Law, A Concise Introduction. San Francisco, Westview Press, 1991.

McGuire G. Frank.: Security intelligence sourcebook: including who's who in terrorism. Maryland, Silver Spring, 1990.

Mcwhinney, E. Q. C.: Aerial Piracy and International Terrorism (the illegal diversion of aircraft and international law). Dordrecht, Martinus Nijhoff Publishers. 1987.

Mcwhinney, E. Q. C.: Aerial Piracy and international law. New York, Oceana, 1971.

Phillips, David.: Skyjack: The Story of Air Piracy. London, Harrap, 1973.

...
"Plastic Guns a real threat to Airport Security.
Security Systems, Vol. 17, No. 8, p. 1-8, 1986.

Reighard, H. L and Dailey, John T.: Final Report Task Force On Deterrence of Air Piracy. Washington D.C., Office of Aviation Medicine, 1978.

Revel, O. B. Aviation Security: A global issue. FBI Law Enforcement Bulletin, July 1989.

Singh, Bilveer: Skyjacking of SQ 117: Causes, Course and Consequences. Sangapore, Crescent Design Associates, 1991.

S. K. Ghosh.: Aircraft hijacking and the Developing Law. Punjabi Bagh, Ashish Publishing House, 1985.

...
Skinner won't ban electronic devices from international flights; seeks better screening. Corporate Security Digest, Vol. 3, No 26 June 3, p. 1, 1989.

Slutsker, G.: Science and Technology. Forbes, February 20, p. 120-121, 1989).

...
Taiwan: A Resort For Mainland Hijackers, Beijing Review, August 23-29, p. 6, 1993.

Trui, Robert T.: Descriptive Study of Aircraft Hijacking, unpublished research, Huntsville, TX: Sam Houston University, 1972.

Whelton, C.: Skyjack. New York, Tower Publications, 1970.

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The National Police Academy, Cairo, Egypt, Criminology, 1988.

Police Institute, Cairo, Egypt, Police Law, 1988.

Arab Security Center for Security, Studies and Training, Riyadh, Saudi Arabia, Aviation Security, 1993.

University of Illinois at Chicago, Chicago, Comparative Criminal Justice, 1993.

PUBLICATIONS: A Paper on Aircraft Hijacking in International and National Law, The African Police Bulletin, Cairo, March 1989, No 1, Pp 34-37, (English Issues), Pp 89-93 (French Issues).