Aviation related crime and Terrorism

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# Abstract

Aviation-related crime and terrorism pose significant challenges to the global aviation industry and require a multifaceted approach to address. This study aims to investigate all aspects of aviation-related crimes, including its prevalence, trends, causes, and consequences. It will also look at the underlying causes and motivations for these crimes, shedding light on their larger societal and geopolitical repercussions. The purpose of this study is to provide useful data that will aid lawmakers, security specialists, and the aviation industry in strengthening security procedures and preventing such incidents in the future. This research has demonstrated the evolving nature of these threats, highlighting the need for continuous adaptation of security measures.

# Introduction

Globalization is one of several processes that are evolving quickly. State borders do not impede the flow of people or products in any way, whether it is by land, sea, or air. The revolution in virtual and physical reality communications is one of the key factors driving this process forward. The movement of people or products by air using aircraft, or more specifically airplanes or helicopters, is referred to as air transport, which encompasses both air travel and air freight. Over the past few decades, air terrorism has emerged as the biggest threat to the safety of air transportation, directly endangering the lives of both travelers and regular citizens who could be killed in an act of terror.The unauthorized seizure of an aircraft by an individual or group is known as aircraft hijacking also called as skyjacking, plane hijacking, plane jacking, air robbery, or air piracy, Specifically, the term “aircraft piracy” has been used inside the special aircraft jurisdiction.

One of the most hazardous social problems of our day is air terrorism, which is a subset of terrorism. Perhaps most importantly, this kind of crime is a great and incredibly inexpensive means of intimidation and global attention. According to Gotowała (2006), the media and propaganda value of hijacking huge planes is higher than that of murdering one hundred Israelis in a combat.

Ten years after the 9/11 attacks, there have been ongoing attempts to blow up commercial aircraft, use surface-to-air missiles to bring down airlines, detonate explosives both inside and outside of terminal buildings, and attempt to blow up commercial aircraft by sending bombs through air cargo.

Airport assaults, explosions, and hijackings are the three main methods used to attack aviation. Since their original use, these risks have mostly not changed. But with time, the strategies, drives, and objectives behind hijackings, bombings, and assaults on airports have evolved. The traditional goal of previous hijackings was to land and engage in negotiations. In these instances, terrorists leveraged agreements or demands on a culture or community by using hostages captured during hijackings. When new tactics and technologies, like luggage screening and air marshals, are implemented to stop certain attack routes, criminals and terrorists become more resourceful, audacious, and lethal. Additionally, there have been instances in which the hijackers have taken control of the flight crew, entered the cockpit without authorization, and flown them into structures.

# Definition and significance of aviation terrorism

Aviation Terrorism refers to the use or threat of violence against aircraft, airports, or related infrastructure with the intention to instill fear, cause harm, or achieve political, ideological, or religious objectives. This form of terrorism can involve hijackings, bombings, attacks on airports, or cyber-attacks on aviation systems.

Aviation terrorism holds significant importance due to its global impact and the severe consequences it can trigger. As a highly visible form of terrorism, it attracts extensive media coverage, often causing widespread fear and disrupting international travel and commerce. The symbolic nature of aviation, representing globalization and technological progress, makes it a prime target for terrorists seeking to convey political or ideological messages. The threat of aviation terrorism has led to the implementation of stringent security measures worldwide, including advanced passenger screening, intelligence collaboration between nations, and the development of sophisticated counter-terrorism technologies. Economically, the effects can be devastating, not only in terms of loss of life and infrastructure but also through long-term damage to the aviation and tourism industries. Furthermore, aviation terrorism has prompted the creation of international laws and conventions aimed at deterring such acts and ensuring global

cooperation in responding to threats. The psychological impact on passengers and the general public also cannot be underestimated, as fear of flying or insecurity in air travel can lead to reduced travel and long-term changes in behavior.

# Evolution of Aviation related crimes

Terrorism, from 1930's Peruvian airline hijacking to a pervasive problem, has evolved from isolated incidents to a serious threat to international security, with hijacking peaking in 1969. Early aviation terrorism mostly involved hijackings for transportation, often using hostage situations or aircraft downings to pressure governments into concessions. The September 11, 2001 attacks marked a significant shift in air terrorism history, with four ships hijacked for military, public, and civil administration purposes. Terrorist tactics have evolved, emphasizing violence and raising awareness. Since the 1930s, planes have been a major target.

In 1971, the JKLF hijacked an Indian Airlines aircraft, causing a diplomatic crisis between India and Pakistan. In 1976, six Kashmiri terrorists took control of an Indian Airlines Boeing 737, aiming to travel from Delhi to Mumbai. After regaining diplomatic relations, the aircraft was returned to India. In 1978, two suspected Youth Congress members hijacked an Indian Airlines flight, demanding Gandhi's release.

In 1981, Sikh separatists took control of an Indian Airlines flight, causing it to land in Lahore. In 1982, a Sikh militant hijacked another flight, demanding half the Sikh security grants and handover of power to Akali Dal. In 1984, a flight IC 405 was hijacked, forcing it to land in Lahore. In 1986, Palestinian militants hijacked Pan Am Flight 73, causing 43 deaths. All four hijackers were apprehended and given death sentences in Pakistan.

In 1993, Indian Airlines Flight 810 was hijacked and brought back to Lucknow, demanding a temple and karsevaks' release. The hijacker claimed it was in retaliation for Prime Minister Narasimha Rao's pledge to rebuild the Babri Masjid. Four students from Lucknow took control of the flight, demanding exam postponements and course changes. In December 1999, Flight 814 was taken over and routed to Kandahar, Afghanistan.

In 2001, al-Qaeda took control of commercial airplanes in the US, modifying aviation security and launching missiles in Afghanistan and Iraq. In 2004, Russian airlines were bombed by

terrorists, causing deaths. In 2010, AQAP conspired to bring down cargo planes with plastic bombs, requiring commercial airline goods to be checked. In 2011, a suicide bombing at Moscow's Domodedovo airport resulted in 35 fatalities and over 100 injuries.

Post 9/11 attacks:

Richard Reid attempted to set off an explosive device in his shoe on American Airlines Flight 63 on December 22, 2001. Flight attendants and passengers tried to stop Reid, but sedatives were used to apprehend and subdue him. Following Al-Qaeda's November 28, 2002, attack on an Israeli-flagged commercial airliner, Arkia, with two SA-7 missiles that missed 271 passengers, the Israeli government outfitted its fleet with anti-missile flare defense systems. Terrorists known as the "Black Widows," who had hidden explosives on board, brought down two Russian planes at Domodedovo International Airport in 2004. 21 UK nationals were detained on August 9, 2006, on suspicion of arranging the detonation of liquid explosives on a commercial flight that was headed to the US. In January 2011, a suicide explosion at Moscow's Domodedovo airport's international arrivals terminal left over 100 people injured and 35 people dead.

The most recent aviation-related incident involved attempts to electronically hijack El Al flights from Thailand to Israel in February 2024, in an attempt to swerve it off course, attempts were made to gain control of the aircraft's communication network while it was over Houthi-controlled territory. The flight crew saw the problem, though, and made it to their destination safely.

# Objectives of the study

This study aims to investigate all aspects of aviation-related crimes, including its prevalence, trends, causes, and consequences. The goal of the study is to identify patterns, vulnerabilities, and workable defenses by examining a variety of aviation crimes, including bombings, smuggling, hijackings, and terrorism. It will also look at the underlying causes and motivations for these crimes, shedding light on their larger societal and geopolitical repercussions. Ultimately, the goal of the research is to provide useful data that will aid lawmakers, security specialists, and the aviation industry in strengthening security procedures and preventing such incidents in the future.

# Theories related to aviation terrorism

### Relative Deprivation Theory

Relative deprivation theory posits that individuals may feel a sense of frustration and injustice when they perceive themselves as unfairly disadvantaged compared to others. This sense of injustice can lead to feelings of anger and a desire for revenge, which in turn may motivate individuals to engage in terrorist activities as a means of addressing perceived injustices. By exploring the origins, key elements, and applications of relative deprivation theory, this chapter has sought to provide a comprehensive understanding of the potential role this theory plays in the broader field of terrorism studies.

### Cognitive Radicalization

Cognitive radicalization is a psychological framework that seeks to understand the processes by which individuals develop extremist beliefs and engage in terrorist activities . The concept of cognitive radicalization is distinct from behavioral radicalization, which focuses on the actual acts of violence or terrorism, and emphasizes the importance of examining the underlying psychological factors that drive individuals to engage in political violence.

### Resource Mobilization Theory

Resource mobilization theory is a sociological concept that focuses on resource access and mobilization in an attempt to explain the origin and endurance of social movements and divisive politics. According to resource mobilization theory, which is relevant to terrorism studies, terrorism is more likely to happen when people and groups have access to the tools and supplies they need to commit violent crimes, such as money, weapons, and recruits.

### Strain Theory

A sociological concept called strain theory aims to explain the connection between deviant behavior, such as terrorism and criminality, and social deprivation. According to strain theory, people who are under a lot of social and economic stress are more inclined to resort to violent or terrorist acts as a way to get what they want and vent their frustrations.

### Differential Association Theory

The academic community has been paying more and more attention to the complicated and multifaceted subject of terrorism in recent years.The differential association theory, originally proposed by Edwin Sutherland , has been widely used to understand and explain various criminal behaviors, including terrorism. This theory posits that criminal behavior is learned through social interactions with other individuals, particularly in the context of intimate personal groups.

### Opportunity Cost Theory

Opportunity cost theory posits that individuals and groups engage in terrorism when the perceived benefits of doing so outweigh the perceived costs. According to this hypothesis, people who have less access to economic opportunities would be more inclined to engage in terrorist operations since the rewards from doing so could outweigh the costs compared to choosing peaceful, nonviolent activities.

## Salvage Principe and civil aviation:

Salvage is a crucial principle in maritime law also in aviation, enabling voluntary efforts to save ships and cargo at risk. The concept of quantum meruit, or the reasonable value of services rendered voluntarily, is used to reward salvors for their efforts. The Aircraft Act, 1934, governs civil aviation in India, ensuring aircraft owners are entitled to reasonable rewards for salvage services. Section 402 of the Merchant Shipping Act also applies to aircraft, mandating compensation for salvage services. Section 402(2) prioritizes life salvage over property salvage, emphasizing the importance of human life in salvage operations. The Indian government has developed rules for assisting aircraft in emergencies, which are updated periodically under the Aircraft Rules, 1937. The Civil Aviation Requirements (CAR) provide guidelines for search and rescue of aircraft within Indian airspace, ensuring 24-hour assistance to those in distress.

# Different types of Aviation related crimes



Fig. Possibility of attacks - Air terrorism

**Hijacking:** is a dangerous and illegal act that involves taking control of an aircraft while in flight. Hijackers often use threats of violence or force to subdue the crew and passengers, demanding ransom, political concessions, or simply a safe haven. These incidents can have devastating consequences, including loss of life, serious injuries, and significant economic disruption. Aviation authorities and security agencies around the world work tirelessly to prevent hijackings and respond effectively to such incidents.

**Sabotage:** The deliberate act of causing injury or disruption by damaging or destroying an aircraft or any of its components is known as sabotage. This may entail damaging things physically, setting off explosives, or committing other nefarious deeds. Aviation sabotage has the ability to seriously jeopardize the security and safety of air travel, with fatalities and serious injuries as well as serious economic repercussions. For the purpose of stopping aviation sabotage and guaranteeing passenger safety, security procedures like careful inspections, surveillance, and intelligence collection are essential.

**Fraud:** Fraud is a pervasive problem in the aviation sector that includes a range of illicit actions, including identity theft, corporate fraud, credit card fraud, insurance fraud, and cargo fraud.

**Airport vandalism:** is a deliberate act of damaging or destroying airport property. This can include anything from graffiti on walls and signage to more serious damage such as breaking windows, vandalizing aircraft, or interfering with airport operations. Such acts can have significant consequences, including delays, disruptions, and increased security costs. Airport vandalism can also pose a safety risk to passengers and airport staff. To prevent and address airport vandalism, airports implement various measures, such as increased surveillance, improved security, and public awareness campaigns.

**Airport security breaches:** refer to incidents where individuals or groups manage to bypass airport security measures and gain unauthorized access to restricted areas or aircraft. Advanced screening technologies, trained security personnel, physical security measures, intelligence sharing, emergency response plans are the possible measures for this.

**Counterfeiting aviation documents:** is the illegal creation or alteration of official aviation documents, such as passports, visas, or boarding passes. This can involve forging documents from scratch or modifying genuine documents to include false information. Counterfeiting aviation documents can pose a serious threat to aviation security, as it can enable individuals with malicious intent to gain unauthorized access to airports or aircraft. It can also facilitate other illegal activities, such as human trafficking or drug smuggling.

**Smuggling:** refers to the illegal transportation of goods or people across international borders using aircraft. This can involve hiding contraband within luggage, cargo, or even the aircraft itself. Common items smuggled through airports include drugs, weapons, counterfeit goods, and even people.

# International AVIATION Laws

## Tokyo Convention (1963)

Signed in Tokyo on September 14, 1963, the Tokyo Convention was the first international convention that outlawed "jeopardizing the safety of person or property" in civil aviation during

international travel. It said that the parties committed to take required steps to reclaim or preserve control in the event of an unlawful takeover or threat to an aircraft. When the plane landed, the pilot was authorized to disembark any suspicious person, but the landing nation's permission was needed. Any illegal behavior on board may be subject to the jurisdiction of the aircraft's registration state. The parties in charge of the aircraft must give it back if they intended to engage in unlawful activity or already were.

## Hague Convention (1970)

The cornerstone of Indian anti-hijacking legislation is the Hague Convention, which was accepted in 1970. In 1982, India signed on as a signatory. The first international treaty to criminalize actions involving civil aviation was the Tokyo Convention, which did not encompass acts of terrorism, sabotage, or hijacking. In order to close these gaps and deal with the rising yearly number of hijackings, the Hague Convention was created.

A draft convention, which would make it criminal to "unlawfully seize" an aircraft, has been filed to The Hague by the ICAO Legal Committee in an effort to deter terrorist assaults on civilian aircraft. The agreement also requires nations to arrest or extradite hijackers because it regards hijacking as a distinct crime that is punishable by death.

## Montreal Convention (1971)

On September 23, 1971, the Montreal Convention of 1971 was signed. Moreover, it was implemented on January 26, 1973. Compared to the Tokyo Convention, the Hague Convention was significantly more sophisticated. It did not, however, recognize the fact that these air strikes were carefully orchestrated and that those who supervised them outside bear as much guilt as those who forcibly took control of the aircraft. Furthermore, it persisted in providing neither solace nor recompense to the crew members and defenseless passengers who were kidnapped. Consequently, the 1971 Montreal Convention substantially broadened the scope. One of the main peculiarities of this rule was that it penalized anyone who disapproved of it. Similar to the Hague

Convention, but focusing on unlawful interference with international civil aviation, is the Montreal Convention.

## Montreal Protocol (1988)

The conventions described above were designed to address all issues that surfaced in the wake of a terrorist attack on a commercial aircraft. However, it is crucial to note that all three conventions saw terrorist action through the prisms of illegal activity and aircraft seizure, obliging them to acknowledge the fact that terrorist conduct typically results in equally chaotic situations when it takes place in close proximity to an aircraft, such as at an airport. Furthermore, the Protocol addressed this matter and extended the scope of the Conventions from in-flight to in-service. This technique's in-service period was specified as beginning when ground crew members begin preparing for takeoff and ending twenty-four hours after landing. It is evident from this that the Protocol's main goal was to safeguard both airport infrastructure and airline passenger safety.

**NATIONAL AVIATION LAWS**

## The Anti-Hijacking Act in 2016

The Indian Parliament passed the Associate in Nursing Act, 1982, also known as the Anti-Hijacking Act, 1982, to prevent unapproved takeovers of aircraft registered in India. The act prohibits unauthorized seizure of aircraft, which can result from force or intimidation, and carries a fine and life sentence. After the 1999 hijacking of Indian Airlines Flight 814, the government granted its clearance in 2005. Enacted in 2016, the Anti-Hijacking Act aims to put international accords like the Hague Convention and the Beijing Protocol into effect.

**Section 4 : Punishment for hijacking-**Anyone found guilty of hijacking faces the following penalties:

1. death in cases where the crime directly causes the death of a hostage, a security guard, or any other person not directly involved in the hijacking; or
2. life in prison, which entails serving out the remainder of the offender's natural life in prison along with a fine and the possibility of having their personal property seized.

**Section 5: Punishment for acts of violence connected with hijacking.**

Anybody who, while committing the crime of hijacking an aircraft, also commits any violent act against a passenger or crew member will be punished in accordance with the laws currently in effect in India, just as they would have been punished if the violent act had been committed there.

## Bureau of Civil Aviation Security (BCAS):

The Bureau of Civil Aviation Security (BCAS) is an affiliated office of the Ministry of Civil Aviation (India). It is the regulatory authority in India for civil aviation security. It is headed by an individual holding the rank of Director General of Police and is referred to as the Director General of the Bureau of Civil Aviation Security. The Director General of BCAS should oversee the implementation of Annexure 17 (Security: Safeguarding International Civil Aviation Against Acts of Unlawful Interference) of the Chicago Convention of the International Civil Aviation Organization. The Director General of BCAS is in charge of creating, carrying out, and maintaining the National Civil Aviation Security Programme.

## Customs Act, 1962:

Section 111: Goods imported or exported without proper permits or licenses are liable for confiscation.

Section 112: Imposes penalties for fraudulent import or export of goods.

Section 113: Goods imported or exported with intent to evade customs duty are liable for confiscation.

Section 115: allows for the confiscation of aircraft used in smuggling activities.

Section 135: Provides for imprisonment and fines for various customs offenses, including smuggling.

## Indian Penal Code :

Section 336:Acts threatening another person's life or personal safety are covered

Section 337: Causing harm through actions that jeopardize the lives or personal safety of others. Section 338: Causing great harm by doing an act that puts another person's life or personal safety in danger.

Section 304A: Death via Negligence.

Section 427: Mischief resulting in damage exceeding fifty rupees.

## Explosive Substances Act, 1908

**Section 3:** Individuals who unlawfully use explosive substances to cause explosions posing a risk to life or property may face punishments such as ten years in prison with fines, life transportation, or a lesser term with fines, depending on whether actual harm was caused.

**Section 5:** Under suspicious circumstances, individuals who create or handle explosives may face a maximum prison sentence of 14 years, plus a fine, or a maximum five years, plus a fine, unless they can prove the explosive was created or controlled for a legitimate purpose, raising reasonable suspicion that they are not doing so.

**Section 6:** The Act imposes penalties on abettors who provide funds, materials, or facilitate the commission of an offense, and those who facilitate such activities will face the corresponding penalties.

# Overview of aviation security measures



In the past, authorities have responded to an incident or new threat by implementing layers of additional security measures. When we reflect on the events of the last four decades, we can observe that the first pre-board screening procedures from the 1970s and 1980s have been gradually expanded to accommodate new situations. Security screening was implemented to stop sharp objects from entering the airplane cabin after knives started to pose a threat to aircraft hijacking. Similar to this, new screening procedures were implemented in 2006 to address possible problems with explosives that come in liquid, aerosol, or gel form.There has been little to no relief for other measures that might be considered redundant, like the prohibition on carrying knives or other similar items, even when new measures are implemented, like reinforced cockpit doors to reduce the risk of passengers attacking flight deck crew. The ICAO Council was instructed by the 37th Session of the International Civil Aviation Organization (ICAO) Assembly in 2010 to work with the AVSEC Panel to identify and create a methodology for risk assessment in aviation security and to incorporate risk-based assessments into any recommendations for the adoption of new or modified aviation security measures. Such a method was developed by the ICAO Working Group on Threat and danger, which uses it to assist in advising member states on the degree of danger caused by hypothetical threats. A revised risk-context statement for aviation security was released by the ICAO in 2013 (ICAO, 2013). "Identifying, comprehending, and addressing the potential risks to and from civil aviation in general and its specific goods (passenger, baggage, cargo, and mail) transported is the most effective way to manage the ongoing threat of terrorism. This indicates that recognizing and comprehending danger is highly valued.

# Effectiveness of security measures in preventing terrorism

### Deterrence

Research shows that visible security measures, such as armed personnel and advanced screening technologies, effectively deter potential terrorist attacks . The unpredictability of random screenings and the presence of air marshals further dissuade attackers by increasing the perceived risks.

### Detection

Technological advancements like AIT scanners, ETD systems, and CT scanners significantly enhance threat detection capabilities. The use of PNR data and behavioral detection techniques allows for early identification of high-risk passengers, improving overall security .

### Response

Studies highlight the importance of regular security drills and crisis management training in ensuring effective responses to threats . The presence of trained personnel, including air marshals and crew, provides immediate response capabilities during in-flight incidents .

### Technology Adaptation

The literature underscores the need for continuous adaptation of security technologies to counter evolving threats . Regular updates to security systems and cyber protections help maintain robust defenses against new risks .

# IMPACT of aviation crimes

### Economic impact:

Due to increasing ticket prices, bad travel demand brought on by the state of the economy, and travel fear, airlines experience significant losses as a result of decreased demand for travel and the implementation of security ticket costs.Less passenger flights will result from higher tariffs because demand for travel is price-elastic. In this environment of abundant capacity and little demand, airline customers do not have to put up with price increases. From the perspective of the

airport, funding for security modifications might come from either increased airline fares or the government. Since older airports have less space than newer ones, the cost of purchasing and installing devices like metal detectors and explosive detection systems can be high.

### Excess time consumption and delays before boarding

Prior to the implementation of stricter security protocols, travelers could arrive at the airport approximately half an hour early, check in, and still reach their gate in time for takeoff. Travelers must now allow ample time for standing in line at check-in desks and security checks before boarding.

### Privacy risk of passengers

In addition to the physical examinations, travelers also need to get used to long and occasionally intrusive searches. The stringent security protocols may pose a privacy danger to travelers. When their bags are inspected, travelers worry that anything may happen to their valuables.

### Loss of Life and Injuries

Aircraft bombings and hijackings often result in immediate loss of life and serious injuries for passengers, crew members, and ground personnel. The psychological trauma experienced by survivors, families of victims, and the broader public can lead to long-term health issues.

### Erosion of Public Confidence

Such occurrences have the potential to spread fear among the populace, which would decrease air travel and harm the aviation sector.There may be a decline in public trust in airport security measures, which would call into question the efficiency of current procedures.

### Geopolitical Implications

Aviation-related crimes can escalate tensions between nations, particularly when they are attributed to specific groups or countries.These incidents often necessitate increased international cooperation to prevent future attacks and address the root causes of terrorism.

# Emerging aviation security technologies and strategies

### Biometric Screening and Facial Recognition

Recent studies have highlighted the growing use of biometric screening and facial recognition in enhancing airport security. These technologies improve passenger identification accuracy and reduce identity fraud, contributing to more secure and efficient screening processes (Gates & Regan, 2020). Research indicates that the integration of biometrics into airport checkpoints streamlines the passenger flow while maintaining high security standards (Smith, 2021).

### Artificial Intelligence and Machine Learning

The application of AI and machine learning in aviation security has shown promising results in improving threat detection. These technologies analyze large datasets, including passenger behavior and luggage scans, to identify anomalies and potential risks more effectively than traditional methods (Huang & Williams, 2021). Literature suggests that AI-driven systems continually learn and adapt, increasing their accuracy and effectiveness over time (Jones, 2022). **Automated Explosive Detection Systems (EDS)**

Advancements in Automated Explosive Detection Systems (EDS) have significantly enhanced the ability to detect explosives in checked baggage. These systems use sophisticated algorithms to identify a wide range of explosive materials with greater precision, reducing false positives and improving overall security efficiency (Lee et al., 2019). Research supports the effectiveness of modern EDS technologies in preventing aviation-related crimes by ensuring that dangerous items are detected before they can be brought onto aircraft (Thomas, 2020).

### Cybersecurity Measures

The increasing reliance on digital systems in aviation has led to the development of advanced cybersecurity measures to protect against cyber-attacks. Literature highlights the importance of these measures in safeguarding critical aviation infrastructure, including air traffic control systems and passenger data (Müller & Owen, 2020). New cybersecurity protocols and technologies are continuously evolving to address the growing threat of cybercrime in the aviation sector (Wheatley & Hayes, 2019).

# Landmark judgment cases

**Mayer Hans George v. State of kerala AIR 1965 SC 722; 1965 SCR (1) 123**

The defendant was a citizen of Germany. He was in route to Bombay on a Swiss aircraft that was in transit from Zurich to Manila. He remained inside the plane rather than getting out. He neglected to declare the gold he owned in accordance with the Foreign Exchange Regulation Act of 1947. The Supreme Court affirmed that his prosecution and conviction under Indian law were lawful.

### Samarudeen v. Assistant Director of Enforcement, Trivandrum 1998 (2) KLT 600

The Kerala High Court decided that because the legal foundation for the claim was formed outside of Indian territory, the petition asking for instructions for the police to look into an act committed outside of the country is inadmissible. In Muhammad Sajeed v. State of Kerala, the same High Court did, however, determine that local police have the authority to look into a crime that was committed outside of India and that prior clearance from the Central Government is not necessary.

### Indian Airlines Limited v Prabha D. Kanan, (2006) 11 SCC 67

After ruling in 2005 that Regulation 13 of the Indian Airlines Service Regulations is constitutional, the Bombay High Court granted the respondent eight years of compensation, which included restoration of the provident fund and gratuity with interest, as well as her last salary and dearness allowance.

### NipaDhar (nee Ghosh) v National Aviation Company of India Limited and others

The appellant, an air hostess, lost her job because of her weight increase and phobic fear of flying. The Indian Constitution's Articles 14 and 21 were violated, according to the court, which determined that her writ petition was maintainable. The appellant's phobic dread of flying was verified, nullifying the termination order, which prompted the writ application and subsequent appeal.

### Priya Parameshwaran Pillai v. Union of India, 2015 SCC OnLine Del 7838; (2015) 225 DLT 314

The Look Out Circular against Priya Parameswaran Pillai, a civil rights activist with Greenpeace India, was overturned by the Delhi High Court. Pillai was arrested at Delhi Airport and was not allowed to leave the country to discuss the role of the British business Essar Energy and breaches of tribal rights. The court decided that Pillai's detention was illegal because travel abroad is a fundamental right under Article 21 of the Indian Constitution.

### Kunal Kamra vs Union of India 2020

The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, were amended in 2023. The legitimacy of the change was contested, and the Bombay High Court rendered a decision in the Kunal Kamra v. Union of India case. In contrast to Justice Neela Ghokale, who upheld the modification, Justice GS Patel ruled it down, citing violations of Articles 14, 19(1)(a), 19(2), 19(1)(g), and 19(6) of the Constitution as well as Section 79 of the IT Act.

## Discussion of Investigative and Prosecutorial Challenges

Investigative challenges in aviation involve complexities in gathering evidence, especially in international contexts due to jurisdictional issues. Cross-border jurisdiction, classified information, and jurisdictional issues due to the international nature of aviation make prosecutions difficult. Coordination between multiple law enforcement agencies, balancing security measures with privacy concerns, and the prosecution of suspects from different legal systems further complicate the process.

## Examination of International Cooperation in Combating Aviation Terrorism

To effectively combat threats to aviation security, nations must collaborate on surveillance and intelligence-sharing, develop legal frameworks for cooperation, and invest in joint training and technology. By sharing information between intelligence agencies, conducting joint training exercises, and establishing global standards, nations can enhance their ability to prevent and respond to attacks. Additionally, extradition agreements and mutual legal assistance treaties facilitate the prosecution and extradition of suspects, ensuring that those responsible for aviation crimes face justice. Collaborative efforts in technology development, such as for security screening, can further strengthen aviation security measures and protect travelers worldwide.

## Analysis of successes and challenges in preventing and responding to Aviation terrorism

The aviation industry has implemented a range of security measures to enhance passenger safety. Stricter passenger screening, baggage inspections, and airport access controls have reduced the risk of attacks. Additionally, advancements in security technology, like body scanners and bomb detection systems, have improved the ability to identify and neutralize threats. International cooperation has been crucial for sharing intelligence, coordinating counterterrorism efforts, and ensuring a unified approach to aviation security. Furthermore, improved emergency response plans have enabled aviation authorities and emergency services to effectively manage incidents and minimize casualties. These collective efforts have significantly strengthened the security of air travel.

The evolving landscape of aviation security faces a multifaceted threat. Terrorists continually adapt their tactics, exploiting technological advancements and operating across borders. Insider threats pose a constant risk, as individuals with access to aviation facilities or aircraft can compromise security. Resource constraints, particularly in smaller or less developed countries, can hinder the maintenance of high security standards. Moreover, the growing reliance on technology in the aviation industry has increased its vulnerability to cyberattacks, which can disrupt operations and compromise security.

## Recommendations for Future Research and Policy Development

To effectively address aviation terrorism in the digital age, nations must prioritize cybersecurity, establish global standards, and foster continued international collaboration. By investing in emerging technologies for threat detection, developing risk-based security approaches, and enhancing cybersecurity measures for aviation systems, countries can strengthen their defenses against cyberattacks and other digital threats. Additionally, improving international legal frameworks for prosecution and addressing the root causes of terrorism through diplomatic and socio-economic initiatives can contribute to a more secure and peaceful aviation environment.

# Suggestion and conclusion

Concern has long been raised about aerial hijacking because, in the event of one, it brings the entire country to its knees and often results in the deaths of many innocent people as the hostages are left at the whim of the hijackers. When the appropriate government fails to protect its citizens as well as the particular airline, the country as a whole suffers. However, stricter regulations and increased security have resulted in a significant decline in the number of hijacking incidents. The attacks haven't entirely stopped, so just because they're happening less frequently doesn't mean the authorities should settle for the status quo. To improve passenger risk assessment, implement sophisticated data analytics tools to identify behavioral patterns indicative of potential threats. This could involve analyzing social media activity, travel history, and purchase patterns to create comprehensive passenger profiles. By utilizing advanced algorithms, security personnel can prioritize individuals for further screening, optimizing security efforts without compromising passenger experience.

The worldwide aviation business faces substantial difficulties from aviation-related crime and terrorism, which call for a multipronged response. The dynamic character of these threats has been illustrated by this research, underscoring the necessity of ongoing security measure adaption. Aviation security has been improved by technological improvements, but it is important to strike a balance between these precautions and passenger convenience and privacy concerns. A thorough counterterrorism policy must include intelligence sharing, international collaboration, and the creation of strong emergency response plans. To make sure the aviation

sector is resilient in the face of changing difficulties, future research should concentrate on emerging dangers, such as the use of drones and cyberattacks.

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