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THE IMPACT OF 9/11 ON THE EUROPEAN UNION'S FIGHT AGAINST AVIATION TERRORISM

Abstract

In the modern world, aviation terrorism represents the primary and unquestionably the most dangerous threat to air transportation. Despite the tightening of security measures, aviation terrorism and the international legal framework/standards regulating this criminal act remain the most significant challenges to this day. The European Union's response to aviation terrorism is of particular interest, as the reactions and policies of European countries in this area have led to the establishment of new policy frameworks and standards.

Keywords: international air law, aviation terrorism, European Union, security, safety, civil aviation

Introduction

This article examines how European authorities respond to the threats posed to civil aviation through the use of individual terrorist tactics. The main focus is placed on political resilience, as we believe that the EU's response to aviation terrorism has triggered a transformation of policy and created a new policy standard. However, in this process, the crime itself has become politicized and turned into a matter of policy. It is important to note that our goal is not to provide an exhaustive overview of all the initiatives developed by the European Union in the field of aviation, nor to analyze aviation security initiatives prior to September 11. Rather, our attention will be directed toward those initiatives that have a clear association to specific incidents—that is, initiatives where it can be confirmed that they emerged as a direct reaction to certain events, and that they originated from European actors both at the national and EU levels. This means that some important—and controversial—mechanisms, such as the EU–U.S. Passenger Name Record (PNR) Agreement, fall outside the scope of this paper.

Incidents of Attacks on Civil Aviation and Their Impact on the Tightening of Security Measures

On September 11, 2001, al-Qaeda carried out the deadliest terrorist attack in human history, turning four hijacked airplanes into flying suicide bombs. Two of them (American Airlines Flight 11 and United Airlines Flight 175) struck the Twin Towers; one (American Airlines Flight 77) caused severe damage to the Pentagon; and the fourth hijacked aircraft (United Airlines Flight 93) crashed in Pennsylvania, near Shanksville, after passengers fought the hijackers for control of the cabin. This series of attacks claimed nearly 3,000 lives, not to mention the immense economic damage estimated at several billion U.S. dollars—or even several trillion when considering the costs of the global war on terror.

However, these attacks not only introduced the phenomenon of suicide hijackings as a new form of aviation terrorism, but also led to a fundamental rethinking of aviation security.

Before September 11, aviation security measures were largely based on the assumption that terrorists were not willing to sacrifice their own lives. Consequently, one of the main goals of security policies was

simply to ensure compliance with general standards. One key security mechanism was the Computer-Assisted Passenger Prescreening System (CAPPS)[1], developed in 1996 to identify suspicious passengers for additional security screening. Interestingly, in the case of September 11, CAPPS functioned fairly well: eight of the nineteen hijackers were flagged by the system. However, the only additional measure applied was monitoring them—their carry-on luggage was not even checked.

Had the hijackers planned an attack similar to the Lockerbie-style[2] bombing this would most likely have been prevented by the CAPPS system. However, the post-Lockerbie security regime proved ineffective against suicide terrorists.

Following the attacks, the United States established the Transportation Security Administration (TSA)[3] to strengthen the security of its transportation systems. This federal agency was created under the Aviation and Transportation Security Act, which transferred the responsibility for airport screening from private airlines to this new governmental body. Among the first measures adopted by U.S. authorities was the introduction of restrictions on the types of items that passengers could or could not bring on board, banning all kinds of scissors, knives, and other potentially dangerous objects that could be used as weapons.

Another significant measure was the installation of reinforced cockpit doors to prevent unauthorized entry by hijackers. However, both measures became subjects of controversy: some pilot associations (for instance, the British Airline Pilots' Association – BALPA)[4] argued that anti-intrusion doors could undermine pilots' control of the aircraft and even pose safety risks. Meanwhile, airlines were reluctant to allocate first- or business-class seats—usually located closest to the cockpit—as reserves for sky marshals, due to the associated loss of revenue.

Following the recommendations of the 9/11 Commission, the United States also introduced an additional security mechanism for passenger prescreening—the Electronic System for Travel Authorization (ESTA)[5]—for travelers arriving from countries under the Visa Waiver Program.

The wave of urgency to strengthen security quickly spread to the international level. Prior to the 9/11 attacks, intergovernmental agreements on aviation security were primarily developed within the International Civil Aviation Organization (ICAO), a UN agency, while the European Union (EU) itself had no formal competence in this field. Since ICAO mainly produces non-binding recommendations, the level of harmonization of aviation security across Europe was rather limited, with each member state maintaining its own regulatory framework and standards.

However, after September 11, aviation security rapidly became an urgent priority on the political agenda of EU member states. European governments soon realized that in order to ensure a swift, broad, and effective response across the continent, it was necessary to "Europeanize" the process. As a result, civil aviation security was incorporated into the European Union's transport policy competence. This decision carried significant practical implications: since aviation security had become a politically crucial issue, there emerged an urgent need for collective response and policy reform.

By bringing this type of issue under the EU's supranational framework, member states ensured that the Union's institutions could employ strong enforcement mechanisms and enhance legislation (through EU regulations and directives) to guarantee the consistent improvement of security standards at European

[1] Computer Assisted Passenger PreScreening System (CAPPS), https://www.gao.gov/products/gao-04-385

[2] On 21 December 1988, at 19:03 local time, a major aviation disaster occurred over the town of Lockerbie, Scotland. A bomb placed on board a Pan Am Airlines Boeing 747 exploded in midair, destroying the aircraft. Wreckage from the airliner spread over 2,175.59

[3] Transportation Security Administration (TSA), https://www.tsa.gov/history

[4] BALPA is the union and professional association for pilots in the uk, https://www.balpa.org/about/

[5] Electronic System for Travel Authorization, https://www.cbp.gov/travel/international-visitors/esta

airports. The politicization of aviation security also enabled the European Commission to assume a prominent role: the supranational decision-making process granted it the exclusive right of initiative, meaning it became the only European institution formally authorized to propose policy measures in this field.

However, it is also noteworthy that the Commission's proposals must first be approved by the Aviation Security Regulatory Committee (AVSEC) by a qualified majority vote, where national representatives are present. The Council of Ministers and the European Parliament (EP) also participate in the decision-making process as co-legislators, which, as will be discussed later, had a substantial influence on the EU's overall response to aviation terrorism.

Political debate in Brussels was further intensified by the "shoe bombing plot" of 22 December 2001, only three months after the events of September 11. In this incident, Richard Reid attempted to detonate explosives hidden in his shoes—a plan that failed because the explosive materials had become damp from sweat. Although this event led to discussions about improving passenger screening through full-body scanners, the only additional measure actually adopted—on top of the already enhanced post-9/11 security standards—was the requirement that passengers remove their shoes for scanning if requested, particularly those with thick soles.[1]

Nevertheless, this failed attack further demonstrated that al-Qaeda would continue to target aircraft—one of the most iconic and symbolically charged terrorist objectives—in the years to come. Thus, the combined impact of the shock of September 11 and the December 2001 "shoe bomber" plot prompted the European Commission to prepare a policy proposal.[2] The document closely reflected the international standards established by the International Civil Aviation Organization (ICAO). To enhance the resilience of the aviation sector, the resulting EU regulation, adopted in 2002, called upon member states to establish national civil aviation security programs, implement quality control mechanisms, and create national authorities responsible for coordination and oversight in this field. The regulation also set out a comprehensive list of provisions that had to be met by airport management, operators, and airlines. The detailed security requirements covered a wide range of distinct yet interconnected elements, including: the design and layout of airport buildings, access control to sensitive areas of airports and aircraft, screening of passengers and baggage, searching and inspection of aircraft, control of cargo and airline suppliers, and training and recruitment of relevant personnel.

In addition, it provided guidelines for security equipment (such as metal detectors and X-ray scanners) and established a classification of prohibited items. All of these provisions aimed to raise the minimum common standards of security across European airports.

Member state governments retained the right to implement stricter measures if they deemed them necessary. As a result, this European framework standard granted the Commission significant executive powers, which is rare in EU security policy: it allowed the Commission, together with national representatives, to conduct joint on-site inspections to ensure that these common rules were properly implemented by individual airports.[3]

The 2002 regulation undoubtedly represented a comprehensive package of measures. Nevertheless, given the prevailing political context, it generated little political debate at the time. Furthermore, when

[1] Shoe bomber: Tale of another failed terrorist attack,
https://edition.cnn.com/2009/CRIME/12/25/richard.reid.shoe.bomber/index.html
[2] European Parliament and Council of the European Union,"Regulation 2320/2002 of
16 December 2002 establishing common rules in the field of civil aviation security,"Official Journal of the European Union, L 355/1, 30 December 2002
[3] The European Commission proposes strengthening the common air security rules,
https://ec.europa.eu/commission/presscorner/detail/en/IP_05_1178

these rules were amended in 2005, this occurred against the backdrop of an intensified period of EU counter-terrorism policymaking, following the terrorist attacks in Madrid and London.

In fact, inspections carried out by the European Commission revealed a series of deficiencies It became necessary to amend the more technical aspects of the legislation, as some general requirements needed clarification, and the rules had to be extended to cover cargo and domestic transport, as well as flight security. As a result, changes were proposed concerning passenger screening, personnel training, and aircraft security inspections.

The revision of security rules was also used as an opportunity to expand the Commission's competences, so that its authority would also include in-flight security measures and air traffic from third countries. When the legislative framework was finally revised and adopted in 2008, the new regulation included provisions in areas such as cockpit access and the presence of "sky marshals" on board. Consequently, step-by-step reforms of these rules were continuously implemented throughout this period, with the last major amendment introduced in 2010.[1]

In parallel with discussions about amending the EU's common aviation security rules, a new terrorist plot in August 2006-the discovery of a liquid bomb plot targeting transatlantic flights—led to further ad hoc, large-scale adjustments to security policy. On 9 August 2006, British police arrested 24 individuals suspected of planning to attack ten transatlantic airliners using "liquid bombs" disguised as carry-on beverages.

The plot involved peroxide-based liquid explosives, mixed with orange-flavored drink powder, and filled into 500 ml soft drink bottles using syringes, in such a way that the original bottle seals remained intact, making them appear unopened and unused. Thanks to effective intelligence work, the conspiracy was foiled before the terrorists were able to execute the attack.[2] This was not the first time in history that terrorists had attempted to destroy aircraft in this way — a similar case occurred in the Philippines in 1995.[3]

At that time, the discovery of this sophisticated plot had no significant impact on aviation security. However, the renewed attempt to use liquid explosives in 2006 prompted the immediate introduction of strict new security measures were developed.

For example, in the United Kingdom, all types of hand luggage were banned, except for wallets, passports or identity cards, and travel documents. However, this did not stop there: the United Kingdom brought the matter to Brussels, and in September 2006 the EU Member States agreed to request that the European Commission introduce an EU-wide ban on the vast majority of liquids carried in hand luggage.

The discussion in the Council of Ministers focused on whether the liquid bomb that the terrorists had attempted to bring on board could indeed have caused such massive and catastrophic damage that it would deliberately destroy an aircraft. Reports from British intelligence services helped convince other governments' representatives, and the internal debate was mainly concentrated on the extent of the prohibition and the quantity of liquids that should be restricted.[4]

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[1] Dirwctives: – European Commission Regulation 185/2010 of 4 March 2010 laying down detailed measures for the implementation of the common basic standards on aviation security Official Journal of the European Union L 55/1 5 March 2010, Commission Regulation (EU) No 185/2010 of 4 March 2010 laying down detailed measures for the implementation of the common basic standards on aviation securityText with EEA relevance (europa.eu)

– supplementing the common basic standards on civil aviation security laid down in the Annex to Regulation (EC) No 300/2008 of the European Parliament and of the Council, Regulation -272/2009 – EN – EUR-Lex (europa.eu)

[2] https://www.nytimes.com/2006/08/28/world/europe/28plot.html

[3] Oplan Bojinka Revisited: THE PLOT AND ITS LEGACY, https://www.tsi-mag.com/oplan-bojinka-revisited-the-plot-and-its-legacy/

[4] War on two fronts: The EU perspective on the foreign terrorist fighters of ISIL, https://www.fiia.fi/sv/publikation/war-on-two-fronts?read

The decision was approved in less than a month, which, by Brussels standards, was remarkably fast. The obvious cost of this speed, however, was that no consultation process took place with private actors, including commercial airlines or airport associations. The Commission swiftly adopted the ban, and on 4 October 2006 an EU regulation was issued controlling the movement of liquids at security screening checkpoints, which entered into force on 6 November 2006.

As in the case of the United Kingdom, the EU's decision allowed passengers to carry on board a maximum of ten containers, each holding no more than 100 millilitres. These containers had to be placed in a single transparent, re-sealable plastic bag of 20 centimetres square. This regulation remains in force to this day, with a few exceptions for liquid medicines and baby milk. Initially, these measures applied only to flights departing from EU territories, but the standard quickly became established worldwide.

Ultimately, it is noteworthy that, following the EU's example, almost every country in the world began to implement similar changes at the international level.

Subsequent negotiations on this legislation took place later, during which the European Parliament exercised its prerogative and called for an assessment of the measures. A Member of the European Parliament from the centre-right EPP-ED group remarked: "No one knows—or cares—whether these rules are effective, since no evaluation has been carried out and no results of such evaluations have been published." On 5 September 2007, Members of the European Parliament adopted a resolution calling on the Commission to. review and, if necessary, repeal the rules. Eventually, in 2010, the European Parliament reached an agreement with the Commission and the Council to lift the ban by April 2013. The main argument was that scanner technology would soon be able to distinguish liquid explosives from harmless liquids.

However, due to concerns from EU governments and airlines about the effectiveness of the new liquid-screening technology—and following lobbying efforts by the French and British governments (both of which had interests in Libya)—only a partial and limited lifting of the ban was implemented. The complete, gradual removal of the restrictions was postponed until January 2016. In the meantime, an evaluation process was carried out, which included consideration of the further phased removal of the rules. As part of this process, in January 2014, a new regulation entered into force for European airports, requiring the introduction of special equipment capable of detecting liquid explosives for the screening of liquids, aerosols, and gels.[1]

It is quite interesting that the European Parliament had always criticized the ban for several reasons: the inconvenience it caused to passengers, as well as concerns about the proportionality and effectiveness of the measure. Moreover, the restrictions were harshly criticized for creating confusion and delays at European airports, where, according to reports, thousands of litres of alcohol and perfume were being confiscated from passengers every week.

Naturally, European airlines and airport operators, dissatisfied with the costs associated with these measures, also lobbied Members of the European Parliament.

After the failed "shoe bomb" attempt of December 2001, debates over the advantages and disadvantages of introducing full-body scanners were reignited following Umar Farouk Abdulmutallab's attempted detonation of an "underwear bomb." On Christmas Day 2009, a Nigerian national tried to detonate an explosive device hidden in his underwear on board Northwest Airlines Flight 253 from Amsterdam to Detroit, during the final leg of the journey. Fortunately, as in previous cases, Abdulmutallab failed to ignite the plastic explosives due to their moisture content, and responsibility for the attack was claimed by Al-

[1] Liquids, aerosols and gels, https://transport.ec.europa.eu/transport-modes/air/aviation-security/aviation-security-policy/liquids-aerosols-and-gels_en

Qaeda in the Arabian Peninsula (AQAP). Abdulmutallab had been flagged by computerized pre-screening, but at the time no threat was detected. [1]This case, of course, drew attention to the limitations of airport metal detectors in detecting non-metallic objects that may pose a threat to passengers. As an immediate response, additional screening measures were introduced at several airports[2]—particularly at Schiphol and Heathrow—for transatlantic flights. In a demonstration of political solidarity, in January 2010 the United States and the European Union signed a joint declaration pledging to cooperate in strengthening global aviation security measures.[3]

At the same time, EU Member States began discussing the inclusion of body scanners in the EU's list of approved screening technologies, as previous attempts to achieve this had been unsuccessful. The European Parliament had long opposed such measures primarily for two reasons. First, it was argued that body scanners could pose a health risk to passengers, as backscatter X-ray systems—types of scanners used in the United States and the United Kingdom—expose passengers to ionizing radiation. Second, the more revealing images produced by body scanners were seen as violating privacy rights and potentially opening the door to discrimination and humiliation. The European Data Protection Supervisor (EDPS)[4], the Article 29 Working Party on Data Protection, and the Fundamental Rights Agency also expressed concerns that the introduction of security scanners could have a significant impact on the protection of passengers' personal data. The European Commission itself acknowledged that the use of body scanners could infringe upon a number of fundamental rights.

In preparation for a coordinated European response—and following a request from the European Parliament—the Commission issued a fact-finding report on this technology. The document was not the result of an independent study but rather a compilation of national assessments. Subsequently, on 15 June 2010, the Commission adopted a communication on the use of security scanners at EU airports.

The rationale behind this proposal was the fact that "the differing standards of scanners currently deployed across Europe create a serious risk of fragmenting the fundamental rights of EU citizens, hinder their freedom of movement, and raise health concerns associated with new security technologies."

Accordingly, the communication sought to harmonize the existing national differences that had arisen due to the uncoordinated expansion of this technology. The use of these technologies had previously created discrepancies across national borders, which prompted the adoption of a harmonized approach.[5]

Following this communication and negotiations with the European Parliament, which led to a series of adjustments, the Commission adopted legislation in November 2011 that included security scanners as an additional permissible method in the common list of screening and control technologies. This allowed airports to voluntarily deploy scanners at security checkpoints.

The 2010 "Cartridge Bomb" Plot and Its Impact on Cargo Aircraft Security

In October 2010, Saudi intelligence sources informed Western services that packages containing 300–400 grams of plastic explosives had been placed on various cargo aircraft departing from Yemen. On flights to the United States via airports in Germany and the United Kingdom, the bombs were hidden

[1] Umar Farouk Abdulmutallab sentenced to life,
https://www.ice.gov/news/releases/underwear-bomber-umar-farouk-abdulmutallab-sentenced-life
[2] Use of Security Scanners at EU airports,
https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vikqhofnaqzs
[3] U.S.-EU Joint Declaration on Aviation Security, https://www.dhs.gov/news/2010/01/21/us-eu-joint-declaration-aviation-security
[4] https://edps.europa.eu/_en
[5] Use of security scanners at EU airports, https://eur-lex.europa.eu/EN/legal-content/summary/use-of-security-scanners-at-eu-airports.html

inside Hewlett-Packard laser printer toner cartridges. It remains unclear whether the intended targets were cargo aircraft or passenger aircraft, as the latter often carry significant amounts of air freight. An alternative possibility is that the bombs were intended for synagogues in various U.S. cities. Responsibility for the plot was once again claimed by Al-Qaeda in the Arabian Peninsula (AQAP). According to AQAP, the operation was still considered a success, as noted in their communication: although it failed, it forced Western countries to spend "billions of dollars on new security measures."[1]

Indeed, prior to this incident, many aviation security specialists had repeatedly warned political leaders that air transport in general—and cargo aircraft in particular—remained especially vulnerable to bombs and terrorist threats, even in the post-September 11 environment. Compared to passenger aircraft, security measures for cargo were relatively weak. In fact, although the 2002 EU common regulations officially applied to cargo security, strengthening this aspect of aviation security only became a political priority after the discovery of the toner cartridge bomb plot. The first outcome of the 30 October plot was a significant institutional change: the establishment of a high-level working Establishment of the High-Level Group on Air Cargo Security

Following the plot, a high-level group on air cargo security was established. In its report, the group formulated a series of recommendations, which were quickly endorsed by the Commission and the Council.

First and foremost, the group proposed a new harmonized EU framework for cargo and mail security, introducing rules to ensure stricter screening of cargo originating outside the EU. In response, the Commission issued legislation requiring air carriers to ensure that cargo from third countries or trusted sources either undergoes rigorous screening for explosives or flammable materials before being granted clearance to fly within the EU. Furthermore, enhanced screening of cargo became mandatory in "high-risk" locations, using a combination of two or more screening measures.[2] Interestingly, three months after the plot was foiled, the Commission carried out an assessment mission in Yemen and concluded that "several additional security measures had been implemented at Sana'a Airport at that time."[3]

Simultaneously, Member States were urged to accelerate the implementation of the EU supply chain security system. This system was developed to certify trusted operators ("shipper") who would act as regulated agents within the sector. The Commission and relevant national authorities were also tasked with strengthening compliance monitoring of cargo and mail regulations—a recommendation that led to an increase in cargo security inspections. Additionally, improvements in personnel training were required, which were addressed through courses for national aviation security inspectors.Consequently, the Commission ultimately integrated cargo screening into its list of priority issues and also included it in the EU Research and Development Framework Programme.[4]

It is also noteworthy that enhancing the exchange of intelligence and threat information was considered a priority. A common EU threat assessment capability needed to be developed. Accordingly, a risk assessment system was established, based on the ability of national governments to provide threat-related information to the EU Intelligence Analysis Centre (INTCEN) within the European External Action Service (EEAS). Finally, the working group also called for a global approach, which included the

[1] Printer cartridge bomb plot planning revealed, https://www.bbc.com/news/world-middle-east-11812874

[2] European Commission,"The EU action plan on air cargo security," MEMO /10/625, 29 November 2010.

[3] Council of the European Union, "EU Action Plan on Combating Terrorism," 15893/1/10, 17 January 2011. https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vim492jbzevj
Council of the European Union,"Progress report regarding strengthening air cargo security,"11250/11, 8 June 2011. https://data.consilium.europa.eu/doc/document/ST%2011250%202011%20INIT/EN/pdf
Council of the European Union, "Progress report regarding strengthening air cargo security,", p. 10 https://www.europarl.europa.eu/doceo/document/A-7-2011-0406_EN.doc?redirect

[4] Final Report Summary – EUROSKY (Single European Secure Air-cargo Space), https://cordis.europa.eu/project/id/312649/reporting

rapid implementation of the latest revision of ICAO Annex 17, strengthening cargo security standards. In line with this proposal, the EU also cooperated with the United States and committed, within the ICAO framework, to the preparation of a declaration encouraging states to invest more effort and resources in enhancing the security of air cargo and supply chains. Subsequently, the EU and the U.S. also reached an agreement on mutual recognition of air cargo security measures. For flights to the U.S., in order to establish a single-step screening process, U.S. authorities also collaborate with the European Commission and the European Civil Aviation Conference (ECAC).[1]

It is thus clear that after each practical threat or incident, both the European Union and international actors progressively tightened security measures. The reforms implemented following the toner cartridge plot had a notable impact on international cooperation and inter-state collaboration. According to the EU Anti-Terrorism Coordinator, the high-level group's report "brought the transport and security community closer together, and cooperation reached a new level."

However, it is worth noting that considerable progress is still required, as some states remain relatively reluctant to share information. In the long term, the most important outcome of this process could be a transition to a risk-based approach, where data from various sources—both public and private—is closely integrated into threat assessments used to inform policy. This ensures greater transparency in the process and helps identify and address member states' weaknesses in security.

Conclusion

The European Union's response to aviation terrorism laid the foundation for political transformation and generated a long list of changes. However, it is also noteworthy that in this process, aviation terrorism became politicized and a matter of policy. The active efforts of institutional actors at the European level successfully led to the substantive—albeit reactive and often ad hoc—development of policy.

Nevertheless, existing inter-institutional tensions and intense political debates also reflect the contested nature of certain aspects of this response. Some high-profile measures have been criticized for negatively affecting passengers' rights. Yet it must be noted that such criticism rarely stems from people who are genuinely concerned with serious violations of fundamental rights or data protection.

The main reason for criticism typically lies in the financial costs and inconvenience associated with the regulations. Each enhanced measure—whether additional shoe checks or screening of personal items—entails financial expenditures, extra equipment, staff training, and in some cases, increased personnel. Consequently, as unfortunate as it may be, even major technology companies, whose influence can significantly shape political leaders' priorities, may perceive that the positive outcomes of security measures do not justify the additional financial burden incurred.

[1] Council of the European Union, "Aviation Security against Terrorist Threats – Conclusion of the Conference of 31 October 2012, Nicosia, Cyprus," 16252/12, 16 November 2012, p. 11.
https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/jha/134079.pdf