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Body Scanners at Airports: The Dilemma between Aviation Security and Passenger Privacy Rights

Mentari Putri Wulandari[1], Budi Ardianto[1], Tan Xuan Yin[2]
[1]Faculty of Law, Universitas Jambi, Indonesia.
[2]Sangmyung University, Seoul, South Korea.
**Corresponding author* : mentariwulandari62@gmail.com

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Abstract

The aviation industry has tightened its security measures due to the increasing threat of attacks at airports. The use of body scanners can be considered an important step in enhancing flight security by detecting prohibited items carried by passengers. However, this can raise privacy concerns, as it may reveal sensitive information about the passengers' bodies. Although security checks at airports are often seen as an extension of aviation security, the implementation and practices of these checks must adhere to human rights and individual privacy. Therefore, the Chicago Convention of 1944 safeguards the safety of international civil aviation and protects the rights of passengers. Although the use of body scanners can be seen as a security measure, it must be carefully considered to balance the need for safety with the protection of individual privacy. This article aims to explain the implications of body scanners on the privacy rights of airline passengers. This research employs normative legal research, and the research method applied in this study is a literature review utilizing books, scientific journals, and other sources that regulate body scanners and passenger privacy rights at airports.

Keywords*: airport; body scanner; privacy right.*

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Abstrak

Industri penerbangan telah memperketat langkah-langkah keamanannya akibat meningkatnya ancaman serangan di bandara. Penggunaan pemindai tubuh dapat dianggap sebagai salah satu langkah penting untuk meningkatkan keamanan penerbangan dengan mendeteksi barang-barang terlarang yang dibawa oleh penumpang. Namun, hal ini dapat menimbulkan kekhawatiran privasi, karena dapat mengungkapkan informasi sensitif tentang tubuh penumpang. Meskipun pemeriksaan keamanan di bandara sering dianggap sebagai perpanjangan dari keamanan penerbangan, pelaksanaan dan praktik pemeriksaan ini harus mematuhi hak asasi manusia dan privasi individu. Oleh karena itu, konvensi Chicago tahun 1944 menjaga keselamatan penerbangan sipil internasional dan melindungi hak-hak penumpang. Meskipun penggunaan pemindai tubuh dapat dianggap sebagai langkah keamanan, harus dipertimbangkan dengan hati-hati untuk menyeimbangkan kebutuhan akan keselamatan dengan perlindungan privasi individu. Artikel ini bertujuan menjabarkan gambaran terkait penerapan pemindai tubuh terhadap hak privasi penumpang pesawat. Penelitian ini menggunakan penelitian hukum normatif dan metode penelitian yang diimplementasikan pada penelitian ini ialah tinjauan pustaka dengan menggunakan buku, jurnal ilmiah, dan sumber lainnya yang mengatur mengenai pemindai tubuh dan hak privasi penumpang di bandar udara.

Kata Kunci: bandar udara; hak privasi; pemindai tubuh.

A. Introduction

International Air Law regulates the use of airspace for the public interest of nations and aviation.[1] Aviation law can be defined as a set of regulations, both at the national and international levels, related to aircraft, air navigation, commercial air transport, and all forms of legal relationships, whether public or private, that arise from air navigation activities, both on land and over water. Aviation law itself is a relatively new area within the scope of international law.[2]

The framework of international law also regulates aviation, the most notable being the 1944 International Civil Aviation Agreement, proposed by the United States. Many countries adhere to this Convention in determining how they regulate civil aviation. The Chicago Agreement of 1944 was established to ensure the safety of passengers, flight crews, aircraft, and cargo, including supporting facilities such as airports. In addition, this convention grants participating countries the right to create and establish legal regulations regarding domestic and international flight operations, including cross-

[1] H.K. Martono dan Amad Sudiro. Hukum Udara Nasional dan Internasional Publik. Jakarta: Rajagrafindo Persada. 2012. p.3

[2] *Ibid.*

border flights.[3] The airport is also an essential means of the air transport sector as a place in the organization of air transport services, so that in the performance of its functions and purposes, it must be arranged both juridically and practically taking into account aspects of the national air order, safety and safety of aviation, estimated air transport service, as well as guidelines and criteria for its organisation.[4]

The role and function of airports are crucial in carrying out safe and smooth flight operations. Airplane accidents often occur at airports; therefore, the Chicago Convention of 1944 provides clear guidelines regarding the requirements that airport authorities must meet to operate. Although flight navigation services are provided, it is important to understand that airport services are actually the responsibility of state institutions, under Article 28 of the 1944 Chicago Convention, although in reality they may be operated by

[3] Prasetia, A., Novianti, N., & Ardianto, B. Perbandingan Hukum Mengenai Pagar Pembatas Bandar Udara Menurut Hukum Penerbangan Internasional dan Nasional. *Uti Possidetis: Journal of International Law.* Vol. 3, No. 1. 2022. p.5

[4] Ghazy Cakrawartya, HM Kabul Supriyadi, & Agus Pramono. Tinjauan Umum Keamanan Bandara di Indonesia: Studi Kasus pada Mario Penyusup Roda Pesawat Garuda Indonesia GA177 Boeing 737- 800 pada April 2015. *Diponegoro Law Journal*. Vol. 5, No. 3. 2016. p.2

private entities.[5] Legally, both the state and the airport, even though the airport has undergone privatization by the state, cannot escape their legal obligations.

The airport operator is responsible for flight safety and security. Flight safety is defined in Article 1, paragraph 48 of the Air Transport Act No. 1 of 2009 as a state in which safety requirements for the use of airspace, aircraft, airports, air navigation, support facilities and other public facilities are met. Flight safety is defined by the state as regulated in Article 1, paragraph 49 of the Air Transport Act No. 1 of 2009. Airport operators worldwide are reforming airport security systems to prevent such incidents from happening again. With the advancement of technology and rising terrorist threats, some parties see body scanners as one option. This device can quickly identify anything attached to a passenger's body in a matter of seconds. The results of the human body scan are stored as digital data. At this point, the debate about privacy begins, namely how airport managers can ensure that data is only processed for security purposes and does not fall into the wrong hands.

[5] Riadhy Adhy dan Nursani Amalia S. Pengantar Hukum Penerbangan Privat. Jakarta: Pranadamedia Group. 2019. p.103

The rapid advancement in technology, the development of transportation technology, especially airplanes, has become the primary choice for people for both short and long-distance travel. Over time, the availability of domestic and international airlines continues to increase. High mobility is crucial for the sustainability of economic life, transport services, governance and international relations to support daily activities in the current era of globalization.[6] Airport arrangements in the Chicago Convention of 1944 are found in Chapter XV titled "Airport and Other Navigation," which includes Articles 68 to 76.[7]

The transportation sector has experienced significant technological advancements. Currently, Three main forms of transport are air, sea and land. The growing demand for the transport of people and goods shows how important transport is, both domestically and internationally, as well as in its role in supporting and driving the economic growth of a region and the development of the aviation industry.

[6] Fatharani, A. Q., Meilina, D. G., & Yoga, A. G. R. A. Penggunaan Autogate di Tempat Pemeriksaan Imigrasi Bandar Udara Internasional Soekarno-Hatta. *Ideas: Jurnal Pendidikan, Sosial, dan Budaya*. 2021. p. 2

[7] Bambang Widarto. Tinjauan Hukum Udara Sebagai Pengantar. Jakarta*:* Pusat Studi Hukum Militer. 2015. p.149

The Chicago Convention of 1944, which discusses the rights of states to regulate air travel within their territories while requiring them to consider the interests of other countries, is one of many international legal instruments that address passenger privacy rights. The Montreal Declaration of 2009 also states that the privacy rights of airline passengers at airports are part of ICAO's commitment to balancing security and passenger rights.

With the increase in digitalization and technology, the basic rights of citizens have been threatened. These rights include privacy, personal data protection, non-discrimination, democracy, and the highly esteemed values of Europe. With the reason of "national defense and security," countries often seek ways to gain access to and control more personal data. For example, there are several institutions in Germany that process personal data for various purposes and functions. This is considered a major threat to the privacy of individuals living in the EU and those who do not.[8] Data protection is more important in profiling than just personal data. Although personal data is classified in different ways, it

[8] Ridha Aditya Nugraha. Perlindungan Data Pribadi dan Privasi Penumpang Maskapai Penerbangan Era Big Data. *Jurnal Mimbar Hukum*. Vol 30 No. 2. 2018. p. 264

is an effective means of identifying individuals. For this reason, the misuse of personal data significantly compromises an individual's privacy. Privacy and personal data protection are closely intertwined; they can be imagined as the level of clarity on a glass, where privacy relates to obscurity while personal data protection discusses transparency. Data protection principles are regulated by Article 12 of the Universal Declaration of Human Rights, where respect for privacy serves as an indicator of the progress of a society, both towards citizens and non-citizens, through a legal framework. Article 8 of the European Convention on Human Rights provides the basis for the European Union to emphasize the importance of privacy as a fundamental value recognized within its jurisdiction. Thorough and rigorous rules are applied to avoid ambiguity and ensure legal clarity.

The use of body scanners at airports has sparked a debate about passengers' privacy rights. On one hand, scanners help enhance flight security. On the other hand, scanners are considered a violation of privacy because they display naked images of passengers' bodies. Several instruments of International Law discuss passenger privacy rights, including the 1944 Chicago Convention,

which addresses the rights of states to regulate flights within their territory while requiring them to consider the interests of other states. In addition, the Montreal Declaration of 2009 emphasizes that the ICAO's (The International Civil Aviation Organization) commitment to balancing security and passenger rights includes the right to passenger privacy at airports.

B. Discussion

1. Body Scanner based on The Chicago Convention 1944

The public international law of air transport was founded by the Chicago Convention of 1944. Many countries use this convention as a basis for establishing national jurisdiction over civil aviation operations. This convention was established as an international legal provision concerning civil aviation to ensure the safety of passengers, crew, aircraft and cargo carried, including support facilities for aviation operations such as airports.[9]

[9] Daisy Puji Gayatri, Agus Pramono, & Joko Setiyono. Implementasi Konvensi Penerbangan Sipil Internasional Dalam Pengaturan Aspek Keselamatan dan Keamanan Penerbangan di Indonesia. Diponegoro Law Review. Vol. 3, No. 2. 2014. p.5.

During the development of air law, many conventions related to civil aviation have been adopted worldwide, one of which replaced the Paris Convention of 1919. In general, article 44 of the Chicago Convention of 1944 deals with the safety of air transport. The International Civil Aviation Organization (ICAO) was founded with the aim of facilitating international air traffic. Its focus is on civil aviation. The ICAO issues technical and operational regulations on the operational safety of aviation on the basis of the Chicago Convention of 1944.[10] Participating countries can implement the technical provisions established by ICAO within their national legal systems. How participating countries apply international civil aviation provisions to their national laws is one of the biggest issues that ICAO faces in carrying out its duties and functions. The implementation of international rules is also a key factor in the progress of the civil aviation sector at the national and global levels.

One of the reasons for the establishment of the International Civil Aviation Organization (ICAO) is to

[10] Huang Jiefang. Aviation Safety and ICAO. *Kluwer Law International,* 2009. p.21

inform all member states about flight safety, especially with regard to international aviation, and to accelerate the progress of air traffic between countries. The Chicago Convention of 1944 regulates the safety regulations for international civil aviation, which is universally applicable as all countries have airspace that belongs to their respective nations.[11] Article 28 of the same convention, which regulates the system of standards and air navigation facilities, further reinforces this article. Every country participating in the convention must strive to create aviation facilities that meet international standards as much as possible to ensure the safety of flights.[12] Various international laws governing aviation security establish procedures for passenger screening at airports. The two main agreements relevant in this matter are:

1) convention that concerns criminal and other acts on board aircraft. The Tokyo Convention was first established in 1963. It provides a legal

[11] Meylisa Veky. Tinjauan Yuridis Pengaturan Keselamatan dan Keamanan Penerbangan Sipil Internasional dalam Konvensi Chicago 1944. *Jurnal Online Mahasiswa (JOM) Universitas Riau.* Vol 1 Edisi 1. 2019. p.13

[12] I Made Ary Prawira, Kadek Dedy Suryana dan Kadek Mery Heriati. Peran *Aviation Security* Dalam Pemeriksaan Penumpang dan Barang di Bandar Udara I Gusti Ngurah Rai. *Jurnal Raad Kertha*. Vol. 7 No. 1. 2024. p.29.

framework for criminal acts on aircraft and allows countries to take measures necessary to protect aviation safety, such as the inspection of cargo and passengers. It enables countries to establish the required inspection procedures to prevent individuals from bringing firearms, explosives, or other dangerous items onto aircraft.

2) International convention that ensures civil aviation. This agreement, also known as the Chicago Convention, was created in 1944 and is the most important agreement that governs civil aviation worldwide. The International Civil Aviation Organization (ICAO) is responsible for implementing flight safety standards around the world to guarantee flight safety. ICAO establishes regulations and guidelines that assist countries in managing passenger and baggage inspections at airports.[13]

For service providers in the aviation industry, flight safety is essential to protect the interests of the nation. According to the ICAO standard, creating a safe system

[13] *Ibid*., p.32

is of utmost importance in aviation. Facts, data and public perception of the elements necessary to ensure safety must support measures to achieve flight safety. The 1944 Chicago Convention defines air safety and says that national and international civil aviation must follow the legislation in force. These measures are regulated by various international agreements to ensure the safety of passengers, crew, aircraft and cargo. The party directly responsible for aviation activities, namely the airport operator, should ensure the security and safety of flights. In line with the obligations that Indonesia must fulfill as part of the ICAO organization to achieve aviation security and safety, the airport operator, which is directly involved in aviation activities, has a similar responsibility in achieving these goals throughout every phase of the flight process.

This is regulated by Government Regulation No. 3 of 2001 of the Republic of Indonesia on Aviation Safety and Security. Government Regulation No. 3 of 2001 defines aviation safety and security as when flights can be operated safely and securely according to the flight plan. Aviation safety refers to how flights are conducted in accordance with operational procedures

and technical requirements for aviation facilities, infrastructure and support systems [14].

The use of technology such as body scanners (also known as body scanners), X-ray scanners for luggage, and metal detectors, as well as manual procedures like bag checks and physical inspections by security personnel, is typically employed to screen passengers and their belongings at airports. It is important to remember that, although security checks at airports are often seen as an extension of aviation security, the implementation and practices of these checks must adhere to human rights and individual privacy. Countries should strive to achieve a balance between security and individual rights when conducting screening procedures. During the passenger check, the officers thoroughly inspected all luggage, especially the checked ones. If there is luggage that is deemed unusual or contains suspicious elements, further inspection is necessary with the help of X-ray equipment, which is a mandatory tool for every airport. To ensure the security and safety of flights,

[14] Sutarwati, S. & Simanjuntak, L. A. Implementasi Peraturan Keamanan Dan Keselamatan Penerbangan Terkait Manajemen Bahaya Hewan Liar Di Bandar Udara Internasional Hang Nadim Batam. *Jurnal Manajemen Dirgantara.* No. 16 Vol. 1. 2023. p. 2-3

Law Number 1 of 2009 establishes regulations that must be adhered to by passengers and implemented by airport management as the airport operator. The X-ray equipment assists officers in inspections and facilitates the examination process. The regulations outlined in Law Number 1 of 2009 must be followed by passengers and enforced by the airport management as the airport operator, including passenger baggage that cannot be taken into the aircraft cabin and baggage that must be checked or handled with special procedures.[15]

The Chicago Convention of 1944 is a milestone in the regulation of international civil aviation. This agreement governs everything from air navigation, air traffic, to flight security. However, it is important to emphasize that the Chicago Convention of 1944 does not explicitly discuss body scanners. When the Chicago Convention was formulated in 1944, body scanner technology did not exist. This agreement is designed to regulate air travel with the technology available at that time. The Chicago Convention focuses on passenger safety and international cooperation in air transport.

[15] I Made Ary. *Op.Cit*. p.31

According to Article 15 of the 1944 Chicago Convention, two crucial issues are regulated: the establishment of air traffic control services and airport assistance. Nations are required to ensure that aircraft fly safely and efficiently within their territory, according to Article 12 of the Chicago Convention. The concept can be interpreted to require countries to protect flights from security threats by using effective security technologies such as body scanners. Article 37 of the Chicago Convention states that each nation must respect individual rights.

Body scanners can be considered one of the tools to enhance flight security. By using this technology, the airport authorities can detect dangerous objects that may be hidden on passengers' bodies. This is in accordance with the objectives set by the Chicago Convention on flight safety. Economic growth after World War II in the 1960s increased interest in air travel, leading to the merger of leisure and business airlines. Body scanners and other screening technologies have become widespread since the September 11 attacks, which triggered stricter baggage regulations and encouraged the adoption of body scanners. The aviation industry has tightened its

security measures due to the increasing threat of attacks at airports. Previously, airport control was reduced to manual monitoring of passengers and luggage.[16]

During this period, security checks of individuals and their belongings were mostly conducted manually. Eventually, the first baggage X-ray scanners were introduced in the 1970s after a series of hijacking incidents, with only 40 of them occurring in the United States in 1969. However, passengers are only screened using electronic magnetometers and metal detectors. In the late 20th century and early 1990s, Dr. Steven Smith developed the initial concept for full-body scanners. This early model includes a very low-dose backscatter X-ray security screening system known as the Secure 1000. The use of technology such as body scanners (also known as body scanners), X-ray scanners for luggage, and metal detectors, as well as manual procedures like bag checks and physical inspections by security personnel, is typically employed to screen passengers and luggage at airports. It is important to remember that, although

[16] https://www.airport-technology.com/features/history-of-body-scanners/

security checks at airports are often seen as an extension of aviation security, the implementation and practices of these checks must adhere to human rights and individual privacy. Countries should strive to achieve a balance between security and individual rights when conducting screening procedures.

During the passenger check, the officers thoroughly inspected all luggage, especially the checked ones. If there is baggage that is deemed unusual or contains suspicious elements, further inspection is required with the help of X-ray equipment, which is a mandatory tool for every airport. To ensure the security and safety of flights, Law Number 1 of 2009 establishes regulations that must be adhered to by passengers and implemented by airport management as the organizers of the airport. X-ray equipment assists officers in inspections and facilitates the examination process. The regulations outlined in Law Number 1 of 2009 must be followed by passengers and enforced by airport management as the organizers of the airport, including passenger baggage that cannot be taken into the aircraft cabin and baggage that must

be checked or requires special handling.[17] The Convention on International Civil Aviation, also known as the Chicago Convention of 1944, does not explicitly address the use of body scanners at airports. However, several principles and norms of this convention can be linked to the use of body scanners:

1) Aviation Security

   The Convention on International Civil Aviation, also known as the Chicago Convention of 1944, does not explicitly address the use of body scanners at airports. The use of body scanners can be considered as one of the necessary measures to increase flight safety, as they identify the prohibited articles carried by passengers.

2) Privacy Protection

   Article 17 of the 1944 Chicago Convention requires all Member States to respect individual rights and freedoms, including the right to privacy. The use of body scanners may raise privacy concerns as they may reveal sensitive data about passengers' bodies.

[17] *Ibid*., page 32

3) Passenger approval

Article 19 of the 1944 Chicago Convention requires all Member States to ensure that passengers are informed about the security checks that will be carried out. Passengers must be informed about the use of body scanners and have the possibility to refuse the inspection.

4) Security inspection standards

International standards for airport security screening have been developed by the International Civil Aviation Organization (ICAO), including the use of body scanners. The intention of these standards is to ensure safe and effective use of body scanners while protecting passenger privacy.

The Chicago Convention of 1944 is an international agreement that regulates various aspects of civil aviation, including flight safety. Although this convention does not explicitly address the use of body scanners, the general principles contained within it can serve as a basis for analyzing the legality and implications of using such technology on passengers' privacy rights.

In practice, the use of body scanners at airports is often governed by the domestic regulations of each country. These regulations typically take into account various factors, including the level of security threat, privacy rights, and the effectiveness of the technology. With the emergence of new technologies, such as body scanners, the interpretation of international conventions like the Chicago Convention of 1944 will also continue to adapt. The Chicago Convention of 1944 provided a strong foundation for the regulation of international civil aviation, including in terms of security. The use of body scanners at airports, although aimed at enhancing security, also raises concerns regarding passengers' privacy rights. Here are some suggestions for regulations regarding body scanners at airports that could take privacy aspects into account based on the Chicago Convention.

2. The Application of Body Scanners to The Privacy Rights of Airline Passengers

Privacy is not easy to define. According to Solove and Schwartz, the term "privacy" includes ideas about what privacy means, how it should be measured, and

how it should be protected by law.[18] Cohen states that privacy has a problematic picture.[19] Privacy is the subject of sociological, anthropological and philosophical discussions.[20] The right to privacy is a theoretical approach that considers privacy as a legal concept.[21] This right and "what is meant by privacy" are frequently combined in the study of law. Privacy refers to personal freedom and not the desire to control people in a particular society.[22] First, to build relationships with others, it is necessary to hide some aspects of one's private life so that one can maintain one's identity. For this reason, the right to privacy is protected. Second, privacy is essential because a person needs time alone in his or her life. Third, privacy is a right that is autonomous and independent of other rights. However, this right is lost if someone reveals his or her personal affairs to the public. Fourth, privacy also includes a person's right to maintain

[18] Daniel J Solove, Marc Rotenberg and Paul M Schwartz. Information Privacy Law. ,*Wolters Kluwer Law & Business*. 2003. page 4

[19] Julie E Cohen. What Privacy Is For. *Harvard Law Review* 1904. Vol. 126. 2013. p.11

[20] Daniel J Solove. A Taxonomy of Privacy. *University of Pennsylvania Law*. vol. 154, 2006. p.484

[21] Bert Jaap Koops and others. A Typology of Privacy. *University of Pennsylvania Journal of International Law 483.* Vol. 38. 2017. p. 493.

[22] *Ibid*., p.434

domestic relationships, such as starting a family and getting married. These personal relationships should not be known by others, which Warren later called "The Right Against the Word." Fifth, the legal protection of privacy is due to the fact that the damage they have suffered is difficult to quantify. Since they have interfered with private life, losses are considered much more important than physical losses. Thus, if the victim has suffered losses, he can receive compensation.[23]

Right To Be Alone" was established by Thomas Cooley, a United States judge, in 1879. Privacy is truly important for human life a century later, precisely in the digital era, when technology has surpassed many boundaries. Gellert and Gutwirth describe privacy as how to store information obtained from social interactions so that it remains hidden and protected from monitoring or exploration by unwanted parties.[24] Privacy encompasses more than just personal data in profiling. Even though the current classification allows the identification of personal data, the misuse of data

[23] Sekaring Ayumeida Kusnadi dan Andi Usmina Wijaya. Perlindungan Hukum Data Pribadi Sebagai Hak Privasi. *Jurnal Al Wasath,* Vol. 27, No. 2, 2019, p.4

[24] Ridha Aditya Niugraha, *Op.Cit*., p. 263

poses a serious threat to a person's privacy. Personal data protection and data protection are linked. Data protection is about opacity, while personal data protection is about transparency.

In general, body scanners reveal a person's identity in ways that are typically only done in private settings. For many cultures, this is not limited to the visibility of sexual organs. The clear purpose of wearing clothing is to cover parts of the human body that are considered very private, and their exposure is intended only in certain social or intimate situations that are socially acceptable.[25] If every airplane passenger must go through the body scanner portal. The scanner works like an X-ray machine. In the future, the body of each passenger will appear on the monitor screen like a negative photo, but with a high level of image sharpness, allowing for the display of body contours, including undergarments.[26] Several countries are adopting full-body scanners as a security measure at airports. This machine can find hidden objects that could pose a threat to aviation. However, the use of this

[25] European Union Agency for Fundamental Rights (FRA), The Use Of Body Scanners:10 questions and answer, 2010. p. 4

[26] https://www.dw.com/id/ue-berniat-telanjangi-penumpang-di-bandara/a-3733979 Accessed on August 16th 2024

technology also poses a number of issues related to individual privacy. The original goal of full-body scanning was to check whether passengers were involved in drug trafficking by penetrating clothing. This allows the identification of metallic and non-metallic objects that could have been ingested or penetrated body cavities. The search for hidden drug trafficking often requires this process.

For human rights reasons, body scanners violate human rights such as privacy and human dignity, respect for private and family life, and the rights of children. This violates data protection law because the creation and processing of images of people is equivalent to the processing of personal data. Some people may have problems reconciling their religious beliefs with the procedures that body image examinations must perform. So, freedom of thought, conscience and religion are affected by body scanners. In addition, there is the threat of radiation.[27] Article 29 of the Universal Declaration of Human Rights states that everyone shall be subject only to such limitations on the exercise of his rights and freedoms as are

[27] Olga Mironenko. Body Scanners Versus Privacy and Data Protection. *Computer Law & Security review*. Vol. 27. 2011. p.4

determined by law solely for the purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society. Body scanners are mainly used to find objects under clothing. The body scanner creates images of a person's scan that make them appear naked, similar to virtual nudity. developing a series of operating procedures to protect the privacy of passengers.

The technology used creates black-and-white silhouettes and grayscale images of the human body and any objects hidden within it. People cannot be distinguished by facial features. Faces and other body parts can be blurred so that distinguishing features such as skin color or hair are not shown. Body scanners can still access a person's full physical identity, despite efforts to maintain anonymity. This process reveals a person's gender and body shape, as well as physical features that are normally hidden from strangers or even family members and friends.[28]

[28] *Ibid*., p. 5

Additionally, body scanners can reveal private parts of an individual's life, especially in medical cases. This includes assistive devices and medical conditions such as prosthetics, breast implants, yellow bras, diapers, menstrual pads, and people from particular groups such as people with disabilities, transgender people, the elderly, children, women, and religious groups who experience privacy violations.[29] Many people feel that it is a violation of civil liberties to use body scanners as a standard method of screening airline passengers. Airline passengers should not be considered criminals since body searches are primarily preventive. It has been shown that this measure is not a law enforcement action in response to a specific threat or danger that an individual has posed. Every nation must use body scanners. States have the freedom to decide for themselves whether to use this technology and how to implement it.[30] The workings and differences between the two body scanners at airports, backscattered X-ray scanners and millimeter wave scanners are the two types of full-body scanners used in airport screening

[29]*Ibid*., p.6

[30] H. Bellou Salau, A.F. Salami dan M. Hussaini. Ethical Analysis of Full Body Scanner (FBS) For Airport Security. *Journal Advance in Natural and Applied Sciences.* Vol. 6, No. 5. 2012. p. 677

areas around the world. Their use as a secondary screening tool makes it possible to offer selected passengers an alternative to physical searches. Both create images by transmitting weak waves or beams to the body and detecting the waves as they propagate or bounce off the surface of the body and nearby objects. The goal is to identify any items someone is wearing under their clothing, particularly liquid explosives, weapons and medicines.

1) Millimeters Wave Scanners

   Millimeter wave scanners capture images of objects using low-frequency radio waves. This ensures that the person being examined is exposed to absolutely no radiation dose. The energy directed at the object is not sufficient to damage cells, DNA or other atoms in the body. Unlike backscattered X-rays, millimeter wave scanners only provide 2D images of objects.

2) Backscatter X-ray

   Backscatter X-ray uses X-rays to provide a view of the outer parts of a passenger's body to security personnel at airports. In addition, this scanner is similar to medical x-ray machines, but requires much less power. This means that the radiation

> dose a person receives during this scan is significantly lower than that of medical x-rays. Another difference is that medicine uses radiation that passes through your body to take pictures. To create images, backscatter x-ray technology spreads or reflects off the surface of your body and any objects nearby.[31]

The use of body scanners can be seen as a security measure to protect flights from potential harm. Aviation is a broad legal concept. On the contrary, this right can be thought of as a right that belongs to the rule of law and helps to build a complex social system that provides security and stability. For example, the constitution and fundamental rights can grow thanks to order that causes chaos. On the contrary, understanding security means accepting that personal rights can be limited for security reasons. National security, public safety, environmental safety and energy security are among them. This is why flight

[31] https://radiationsafety-ca.tr/info-on-full-body scanners/ Accesed on September 7th 2024

safety is one of the legal bases for legitimate data protection violations.[32]

C. Conclusion

The safety of international civil aviation was one of the main objectives of the Chicago Convention of 1944. However, the fundamental rights of passengers should not be sacrificed to improve safety. The Chicago Convention of 1944 established a comprehensive framework for air traffic control, marking a milestone in the international regulation of civil aviation. The use of body scanners can be seen as one of the government's efforts to maintain aviation security. However, the implementation of this technology must align with the principles of flight safety, which is also a primary focus of the Chicago Convention. This convention provides a flexible framework to accommodate technological developments in the field of aviation, It also includes the use of body scanners. However, this technology needs to be implemented

[32] Tommaso Chiericati Salvioni. How Can Body Scanner be Applied in Shopping Malls Passing The Test of The Article 8 of ECHR, Based on Lessons Learned from Their Deployment in Airport Security?. Tesis Magister Hukum Tilburg University. Tilburg Belanda, 2020. p. 22

carefully and take into account various aspects such as flight safety and the protection of human rights.

The implementation of body scanners at airports presents a multitude of complex issues and considerations. On the one hand, this technology is considered an effective means of increasing flight safety as it identifies potentially dangerous objects on the passengers' bodies. On the other hand, the use of body scanners also raises human rights issues, especially the right to privacy. The effectiveness of body scanners is also a matter of debate. Although this technology has developed rapidly, there is still a possibility of detection errors, both false positives and false negatives. This can cause discomfort for passengers and disrupt the smooth operation of the airport. Although not explicitly stated, the privacy rights of passengers can be implied from the fundamental principles of the Chicago Convention. The 1944 Chicago Convention provided a solid foundation for protecting the rights of air passengers, including the right to privacy. The principles it contains can serve as a guide for formulating policies that strike a balance between security and privacy, even if this

convention does not express cutting-edge technologies such as body scanners.

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