INDONESIAN AVIATION ACT 1/2009: AN EXAMINATION AND THE QUEST FOR REFORM IN CERTAIN ISSUES

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Resume

Indonesian Aviation Act 1/2009, which has been adopted for more than 14 years ago, was made to accommodate the ICAO's Universal Safety Oversight Audit Programme (USOAP) findings in 2007, which highlighted the need for legislative changes to reduce air transport accidents in Indonesia. The Act regulates two aspects of aviation activity, covering the public and private. The public sector regulates aircraft activities in Indonesia's airspace, certain issues are missed owing to (the) controversy over its legal terminology. In the private sector, the jurisdiction issue and applicability of the Act have consequently regarding the applicability of the Montreal Convention 1999 was ratified by Indonesia in 2016. In this paper were examined some provisions in the Act by normative juridical and comparative approaches, emphasizing the urgent need for legal reform. It is ultimately recommended to amending the Act to align it with current conditions.

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1 Introduction

The Indonesian Aviation Act Number 1/2009 has played a significant role in the success of the aviation industry in Indonesia. Since it came into force in 2009, the Act has contributed to a significant improvement in the global safety ranking achieved by Indonesia in 2017, in the average global safety standard by the USOAP [1]. In its establishment, the Indonesian Aviation Act 1/2009 replaced the previous Indonesian Aviation Act Number 15/1992, which was deemed unable to meet the significant needs of the national aviation industry [2].

In 2007, Indonesia was the subject of international concern because of several serious accidents in air transport [3]. Both the number and scale of the accidents were alarming [2]. To call a halt to these accidents, the Indonesian government instituted several safety categories throughout the Indonesian airline companies. These safety levels had three categories: the first level was the highest practicable for all the safety instruments, however the second and the third were not satisfactory enough to fulfill all safety instruments. As a result, not a single national airline was in accordance with the first-level safety category, even the airlines where the majority of shares were owned by the Indonesian government, such as Garuda Indonesia and Merpati [4].

At that time, several Indonesian airlines flew across many countries globally, including countries in Europe like the Netherlands. The report ranks the Indonesian government's response to the European Union's (EU) ban of all Indonesian airlines from flying across European skies [5]. In addition, the Federal Aviation Administration of the USA (FAA) also took action by sending officers to evaluate [6] and explain the aviation situation in Indonesia [7]. Meanwhile, the International Civil Aviation Organization (ICAO) evaluated Indonesia using the USOAP programme [8]. The USOAP audit report revealed unsatisfactory results in numerous areas of the audit, including legislation, organization, licensing, operations, airworthiness, accident investigation, air navigation services, and airports. As a result, it concluded that Indonesia's national legislation regarding aviation, the Indonesian Aviation Act Number 15/1992, was not satisfactory enough to fulfill the Indonesian aviation industry and international standardization. Therefore, to achieve

a minimum global standard, improvements were required by the government in these sectors, starting with the creation of a new Act in 2009.

The evaluation of the USOAP result for Indonesia generated political awareness at the executive and legislative levels [9]. Both parties then agreed to draft a new Act to put a stop to the many accidents that had taken many passengers' lives. The new Act is also wished to be a solution for safety issues and other issues relating to significant points in aviation, such as security and liability issues.

Two years later, in 2009, the new Act was passed. The Act regulates many aspects of the aviation industry and ends the deregulation era for the domestic industry by tightening the requirements for establishing new airlines. As a result, according to Article 11 (2) of the Act, anyone planning to establish an airline company was required to operate with a minimum of ten aircraft, five of which were legally owned or not leased. The operating minimum of the aircraft and the classification that were asked of every company required a huge capital investment [10]. The drafter of the Act realized that aviation safety investment must be prioritized, not only in the operational aspect of business.

Meanwhile, the Indonesian aviation industry ecosystem is gradually finding the right model. Airline companies are slowly adapting to standardization for safety, including all the airlines based on a Low-Cost Carrier (LCC) business model. As a result, some companies that were the majority LCC collapsed due to difficulties financing their operations [11].

This situation has also had consequences for ticket prices, which are not as low as before. The Indonesian government awards safety costs to issue minimum and maximum standards for ticket prices for passengers. Therefore, this policy has also been criticized by the Indonesia Commission for the Supervision of Business Competition (KPPU). The intervention of the Ministry of Transportation on ticket prices gave rise to the Commission's disagreement with fixing a minimum and maximum price for passengers for safety.

The passage of the new Act in 2009 has significantly changed the Indonesia aviation industry in various sectors and wish to increase the safety score for the next audit result of the USOAP in 2014. Owing to the various controversies regarding the new Act, in 2014 the USOAP results for Indonesia were even lower compared to 2007, with only 45% compliance compared to 54% in 2007 [12]. Specifically, in the legislative aspect, the result still needed improvement for the global average. The ICAO required Indonesia to take more legal actions to adopt international aviation regulation standardization in its implementations, including in its Aviation Act [13]. Surprisingly, in 2017, Indonesia successfully achieved a minimum global average for international safety standards in the USOAP audit result, although in the legislative part, it is still less than the international average standard (see Figure 1). However, this has been achieved with no amendment to the Act since 2009.

According to a report by the Indonesian National Accident Investigation Committee, the accident rate in Indonesia exceeded 40 in 2018, as illustrated in the table below (see Figure 2). While there was a decline in this rate after 2018, it began to rise again from 2022 to 2023. This paper does not explore the reasons behind the fluctuations in aircraft accident rates in Indonesia. However, findings from the USOAP reports in 2014 and 2017 indicate that legislative improvements are necessary, as the rates remain below the global average. Nonetheless, the Aviation Act 1/2009 was enacted as a response to the findings of the USOAP audit conducted in 2007.

Figure 1 *USOAP results for Indonesia in 2017, ICAO [14]*

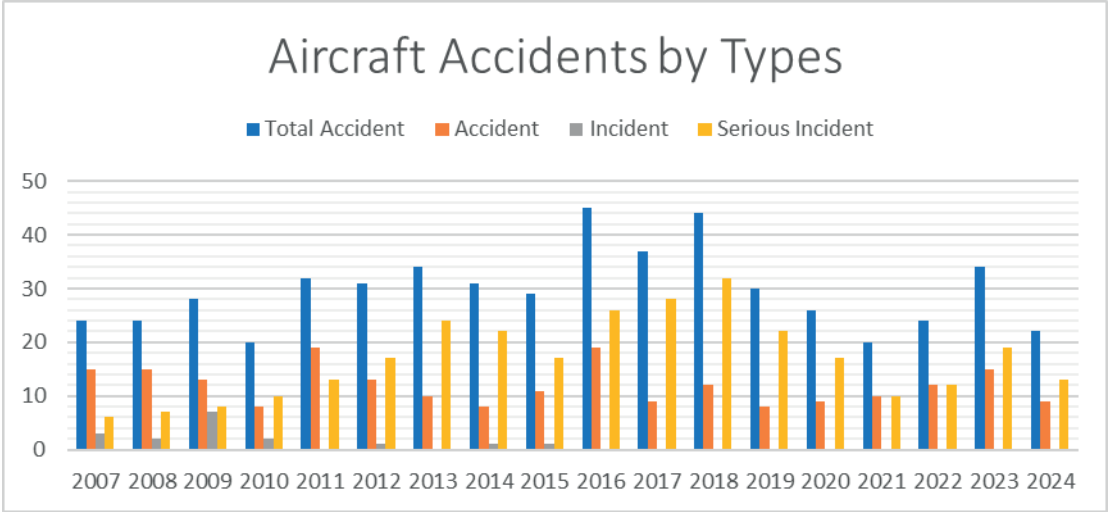

Figure 2 *Aircraft accidents in Indonesia from 2007 - 2024, Indonesian National Accident Investigation Committee [15]*

The Aviation Act 1/2009 was designed to fulfill the safety audit reports in target [16]. However, as a primary law in civil aviation, the Act plays an important role in some issues that are related to aviation activities, not only safety. Some provision issues, like security issues in airspace, the nationality of the aircraft and jurisdiction which are stipulated in legal terms and regulations, are missed by unclear definitions and legal words that affect legal enforcement. Furthermore, some legal issues related to harmonizing other international provisions that the Indonesian government will ratify also have an issue with contradictory definitions, implementation, and legal consequences [17].

While the Act was established mainly because of safety issues that affect the public sector, the Indonesian Aviation Act 1/2009 is designed to regulate all aviation activities, that has a structure to regulate not only public but private provisions, as well. However, in both cases, either in the public or private sector, the issue of jurisdiction is the fundamental question that arises. In circumstances such as jurisdiction on unruly passengers, liability on damage caused by accidents, and mortgaging aircraft, the Act cannot be applied by contradicting other Articles in the Act, other Indonesian laws [18] and other international provisions [19] that apply to most other countries [20].

Therefore, fourteen years after its implementation, the Act has faced more challenges over its provisions. The ratification of international conventions in aviation by Indonesia, such as the Montreal Convention 1999 in 2016, has a significant recommendation to review and adopt international principles. In addition, establishing the Protocol of Montreal 2014 to amend the Tokyo Convention 1963 also has consequences for adjusting the Indonesian Aviation Act if the Indonesian government decides to ratify the Protocol. Lastly, establishing the Law on Job Creation in 2020 has replaced the Act's provision on minimum ownership of an aircraft for the airline company with only one, which indicates the Act also needs adjustment for a safety issue that requires an airline company to invest, not only focusing on the operational aspect of the aircraft number, but also on safety matters [21].

Hence, some issues – like jurisdiction, authorized institution, aviation liberalization industry and delegation of air navigation over Indonesia's territory in the Indonesian Aviation Act 1/2009 – need legal reform, due to changes in the industry and adjustments to domestic and international legal instruments. In addition, it is necessary to examine the Act in order to analyze certain provisions and make necessary adjustments to international legal instruments that have been ratified or will be ratified.

2 Methodology

In this study, a rigorous two-fold methodological approach was employed to thoroughly examine selected provisions of the Indonesian Aviation Act. The first aspect involves normative juridical analysis, which entails a comprehensive examination of legal principles and interpretations within the Act. This analysis has focused on addressing controversies surrounding the definition of key legal terms and the jurisdictional complexities inherent in its application. Additionally, a comparative framework was utilized to evaluate the Act's coherence with international legal standards. This aspect is particularly relevant given Indonesia's ratification of the Montreal Convention 1999 in 2016, agreement on the Realignment of the Boundary between the Jakarta Flight Information Region and the Singapore Flight Information Region in 2022 and its willingness to ratify the Montreal Protocol in 2014.

In addition, in this paper is highlighted the crucial importance of legal reform in both the public and the private aviation industries. The urgency of addressing the challenges that hinder the effective utilization and

enforcement of the Act is emphasized. Consequently, in this study the recommendations were put forward that call for timely amendments to the Act, to align it with modern legal requirements and ensure its effectiveness in addressing present-day aviation safety and regulatory issues.

3 Analysis and discussion

3.1 Jurisdiction issue through the Act

The territory of a state plays a central role in the fundamental legal concepts of sovereignty and jurisdiction. Exclusivity on the jurisdiction concerning aviation can be defined in implementation with many actions in airline activity. This situation means that sovereignty over airspace is the point of common problems in regulation, such as the entry and departure of an aircraft, crews, passengers, and cargo and jurisdiction over them, and the applicability of criminal law, private law and special rules for the protection of international civil aviation [22]. Hence, for jurisdiction issues, the Indonesian Aviation Act covers various areas of regulation, including criminal acts related to public security in the context of a public issue [23] and also a place of jurisdiction court for lawsuits of damages caused by an accident of the aircraft [24].

While Indonesia's legal jurisdiction applies, the rules concerning public safety in Indonesian aviation, including offenses such as hijacking, unruly passenger behavior, and sabotage, are very specific. The Act also governs the legal authority for enforcing laws in cases of unruly passenger behavior, which is only granted to specially trained civil aviation investigators under the authority of the relevant civil aviation agency. This authority is comprised of civil servants from the Directorate General of Civil Aviation (PPNS) [18]. The authority's establishment was prompted by the criminalization of a pilot following the Garuda Indonesia accident at Adi Sucipto airport in Yogyakarta in 2007 [25]. This incident also served as the catalyst for regulating the authority's powers in investigating aviation accidents, which are now the responsibility of the National Transport Investigation Committee (KNKT). As a result, the determination of suspect status in the air transport accidents should not be solely based on the perspective of the police, as was the case in the 2007 accident prior to the enactment of the Indonesian Aviation Act 2009 [26].

Furthermore, according to the specific characteristics of the jurisdiction in Indonesian aviation, the Act is taking differential authority of work with other justice authorities like police institutions for investigation in crime and the Indonesian special authority (PPNS) for unruly passengers. However, specific criminal acts, such as hijacking and sabotage are still under the police authority in view of the impact and advanced technology involved.

As previously mentioned, the Indonesian special authority (PPNS) on criminal air transport for unruly passengers has been established to address incidents involving unruly passengers on both domestic and international flights. In terms of national regulations, Indonesia is looking to adopt the 2014 Montreal Protocol to enhance its legal framework and jurisdiction. However, there are challenges that Indonesia needs to address through legislative measures. For instance, implementing jurisdictional principles, particularly with regard to defining 'Indonesian Aircraft' as outlined in Article 4 Alphabet (C), poses significant difficulties that need to be addressed in harmony with the provisions stated in Article 1, Paragraph 6 of the Act and the Indonesian Criminal Code.

Article 4 of the Act states the validity of the Act for:

a. all utilization activities of air/space territory, flight navigation, aircraft, airports, airbases, air transportation, aviation safety and security, and other related supporting and general facilities, including preservation of the environment within the territory of the Republic of Indonesia;
b. all foreign aircraft conducting activities from and/or to the territory of the Republic of Indonesia; and
c. all Indonesian aircraft present outside the territory of the Republic of Indonesia.

In addition, Article 1, Paragraph 6 states:

An Indonesian aircraft is an aircraft that has Indonesian registration marks and markings of Indonesian nationality.

The Act's applicability, as outlined in Article 4, requires greater consistency compared to other Articles. A prime example of a problematic legal term can be found in Article 1, Paragraph 6, particularly in ensuring safety within the Indonesia's airspace. The definition of an Indonesian aircraft in Article 1, Paragraph 6 stipulates that it must be "an aircraft registered in Indonesia and bearing the national identity of Indonesia." This means that the Indonesian national identity, such as the airline's flag, must be displayed on the aircraft, and the registration code of Indonesia, PK, must also be borne on the aircraft body. The usage of the word "and" in Article 1, Paragraph 6 indicates that both requirements are essential, and if one of the criteria is not met, the classification is not fulfilled.

Therefore, the use of leasing a foreign aircraft by private entity, for example as was done by the owner of MS Glow company, Mr. Gilang, without any changes in the registration code to "PK", has the consequence that an aircraft cannot be classified as an Indonesian aircraft [27]. The Act at this point still maintains a "traditional" way of identifying the nationality of the aircraft, so that all the foreign aircraft need deregistration and then re-registration before using the aircraft in another territory [28] that can be classified as Indonesian aircraft. To return the aircraft to the lessor or other lessee, the lessee or lessor must undertake deregistration and re-registration, i.e. the same procedure as previously.

In contrast, Article 83 (bis) of the 1944 Chicago Convention outlines more feasible regulations "when an aircraft registered in a contracting State is operated pursuant to an agreement for the lease, charter or interchange of the aircraft or any similar arrangement by an operator who has his principal place of business or, if he has no such place of business, his permanent residence in another contracting State, the State of registry may, by agreement with such other State, transfer to it all or part of its functions and duties as State of registry in respect of that aircraft under Articles 12, 30, 31 and 32(a)." This Article stipulates that no-changing the registration mark can also be alternated by transferring the function and duty by only agreement in order to ensure aircraft safety is standardized under a jurisdiction where the aircraft is operated, while this provision will be more flexible in time and procedure [29].

In line with the previous argument, the definition is also outlined in the Indonesian Criminal Code, specifically Article 95a, which states that Indonesian aircraft include not only those registered in Indonesia, but foreign aircraft that are chartered without a crew and operated by Indonesian airlines, as well. This provision in the Criminal Code enables an aircraft to be classified as Indonesian even without a "PK" registration, provided that it is operated by an Indonesian airline company. Hence, the phrase 'the state of the operator' related to jurisdiction in Article 3 of the Montreal Protocol 2014 does not align with Article 1, Paragraph 6 of the Indonesian Aviation Act. However, it does correlate with the definition of national aircraft as per the Indonesian Criminal Code. As a result, there is ambiguity surrounding Indonesian jurisdiction, which may not extend to all the Indonesian aircraft not registered in Indonesia, even when these aircraft are operated by an Indonesian company or individual.

The difference in definition between the two Indonesian laws will be implicated in the law that will apply. While the Criminal Code defines the terms consistency through the international law rather than the Aviation Act, however, a principle of *Lex Specialis Derogate Legi Generalis* indicates that the Act as a specific law in aviation will be more applicable than the Criminal Code as a general law. Consistency on legal principles is also challenged; the use of another registration code for civil aircraft, like a "P" code registration [30], for civil purposes but used for state institutions like the Indonesian Police then gives more complexity to the consistency of the national regulation on state registration. As a civil institution, rules and regulations on aircraft operations shall be under civilian rules as stated in the Indonesian Aviation Act, even then the functional or the aircraft for non-civilian.

In addition, the issue of Article 4 pertaining to the implementation of jurisdiction in private matters under the Montreal Convention of 1999, which Indonesia ratified in 2016 through a Presidential Decree, is also significant, not only in public matters as mentioned earlier. The hierarchy of Indonesian law has implications for the applicability of the Montreal Convention of 1999 under the Indonesian Aviation Act. This raises concerns, as the ratification may not align with the principle of *Lex Superiori Derogate Legi Inferiori*, given that the Indonesian Aviation Act holds a higher position than the Presidential Decree [24]. In light of the Indonesian AirAsia QZ 8501 accident in 2014, it was observed that Indonesian passengers received compensation based on the Indonesian Ministerial Regulation of Transportation 77/2011 [31]. There remains substantial potential for Indonesian passengers to obtain compensation in accordance with the Indonesian Ministerial Regulation of Transportation, which serves as an implementing rule of the Indonesian Aviation Act rather than being based on the Montreal Convention of 1999.

The jurisdictional issue in the Indonesian Aviation Act is crucial, considering the significant role of the air transport industry in Indonesia's national economy as an archipelagic state [32]. National aviation regulations, including the Act, must accommodate the intricate requirements of the aviation sector at both domestic and international levels.

3.2 Challenges to the act in the development of use of the national airspace

The challenges of implementing the Indonesian Aviation Act have become increasingly apparent in recent years, particularly in regard to security and safety measures. In certain areas of Indonesian airspace, there has been a noticeable rise in the use of foreign civil aircraft for non-procedural purposes. As a result, the actions taken by law enforcement entities, such as civil servant investigators and public prosecutors, to address illegal civil aircraft have not been deemed sufficient by the military institution responsible for bringing down the illegal aircraft that enter Indonesia's airspace [33]. At the same time, the development of technology in the aviation industry, such as drones, has led to questions over security and privacy issues.

In regard to the security of the national airspace, the civil authority, as stipulated by the Indonesian Aviation Act, holds jurisdiction over civilian aircraft activities. This extends to addressing violations of laws within a state by aircraft, particularly foreign aircraft. However, it is important to note that only the military institution possesses the necessary tools and capabilities to enforce the landing of a civil aircraft using military jets. The Indonesian Air Force currently lacks authority over civil aircraft, leading to the conclusion that there needs to be a sharing of authority for the legal process between the civil and military sectors in relation to the law enforcement for civil aircraft [34]. As a result, there is a need to draft new provisions in the Law of National Air Space Management to address this issue

effectively. In 2019, an Ethiopian Airways cargo aircraft was compelled to land by the Indonesian Air Force for unauthorized passage through Indonesia's airspace [35]. The fact that the military authorities were not involved in the investigation process led to widespread dissatisfaction. Subsequently, the aircraft was released after being subjected to a minimal fine [36].

In response to legal issues regarding violations of Indonesia's airspace laws, the Indonesian Air Force is proposing a new law to address concerns with the current Indonesian Aviation Act [37]. The draft of this law aims to enhance the authority of the Indonesian Air Force in enforcing the law pertaining to civil aircraft, particularly focusing on the investigation process conducted by the Military Police of the Indonesian Air Force, as stipulated in Article 46. The proposed law also highlights the need for better coordination among government institutions in Indonesia with respect to the Indonesian Aviation Act. Therefore, the drafting of a new law is deemed necessary to address these shortcomings in the existing Act. The future law may improve several aspects of aviation, including safety and security and the adoption of new aviation technologies, all of which may improve the fulfillment of passengers' rights.

Upon reviewing most cases of the violation of Indonesia's airspace, it has been observed that the law enforcement investigator on the ground typically handles the violation by releasing the illegal aircraft and crews after they pay a small fee as an administration sanction. Therefore, it has been noted that the operational costs of law enforcement incurred by the Indonesian Air Force in intercepting these illegal civil aircraft and imposing sanctions is disproportionate from the side of the Indonesian Air Force. This has led the Ministry of Defense to initiate the drafting of a new law. This proposed law aims to involve the Air Force personnel in the legal process for intercepting illegal civil aircraft. Although the presence of military police is seen as a beneficial development in law enforcement, the potential involvement of military personnel in civil aviation raises concerns as it may contradict the Indonesian Aviation Act 1/2009. After all, this Act is also designed to handle law enforcement issues in civil aviation through the civil legal enforcement authority [38].

The security and law enforcement considerations for civil aviation within national airspace should also encompass the governance of drone development alongside the traditional aircraft, as mandated by relevant legislation. As technology continues to progress rapidly, it becomes increasingly imperative to establish regulations that account for all the airspace activities. While the Act currently governs all such activities, drones were not as prevalent when it was initially established in 2009. Drones, classified as aircraft, possess distinct characteristics that necessitate specialized rules and regulations [39]. Unlike conventional aircraft, which adhere to specific requirements for function, size, passenger and cargo capacity, drones must meet separate operational standards [40]. Hence, drones require specific operational knowledge, such as registration and personal licensing for the pilot of the drones.

The fact that small drones are traded on the open market suggests that they are accessible to the public. However, concerns regarding privacy arose when the small drones were first developed, as they were often used for taking pictures or filming as a hobby, which impacted people's sense of security [41]. Today, with advancements in drone technology, they are not just seen as a hobby but also as a primary mode of transportation for expeditions [42] and humans [43], as well. They are becoming bigger in size, especially for use in remote areas not covered by commercial flights, as in Australia. Australia's Civil Aviation Safety Authority (CASA) describes drones for transportation as RPA (Remotely Piloted Aircraft) [44].

Safety procedures and liability issues on drone activities are examples of how the Act needs to be updated. While a drone is categorized as an aircraft, the difference in character and technology of a drone compared to a conventional aircraft needs more specific rules and regulations than in an Act which does not specifically regulate and only regulates at the level of the Ministry of Transportation Decree [45]. Therefore, the amendment is absolutely necessary to meet the changing paradigm in aviation activities in the future.

3.3 Indonesian law number 11/2020 and liberation in aviation industry

Historically, Indonesia has implemented strict rules on operating aircraft. Ministry Decree 127/1990 limited the number of aircraft that may be operated to Garuda Indonesia, Merpati, Mandala, Sempati, Bouraq and Dirgantara Air Service [46, p. 30]. However, the policy changed after the reformation era in 1998, caused by economic crises in all sectors, including air transport. Therefore, competition was lacking in the air transport industry of Indonesia during the pre-reform era.

The Indonesian air transport economy collapsed during 1998 – 2001, which prompted the Indonesian government to take action to improve the aviation industry by introducing a deregulation policy [47]. The policy was replaced by Ministry Transportation Decree Number 11/2001, with a rule to limit the operational airlines by allowing new scheduled airlines to operate with only a minimum of two aircraft. As a result, many new airlines were born. However, most were Low-Cost Carrier airlines and these dominated the market [48].

While airline business increased dramatically with the number of new scheduled airlines and passengers, at the same time, the number of accidents also increased. As a result, international authorities such as the ICAO, EASA and FAA imposed an audit of Indonesian safety quality. Hence, the Indonesian government issued

Ministry Decree Number 25/2008, which terminated the deregulation policy era by applying strict rules for the establishment of new airlines. The government hoped that in the future the airlines would be high capital, and invest not only in the commercial side, but on the safety side as their first priority, as well.

Therefore, the government adopted a policy of requiring a minimum fleet of ten aircraft, with five aircraft being owned and the other five leased. The policy was then put into the provisions of the Act, in Article 118 Paragraph 2 Alphabet (a). As a result, only airline companies that owned high capital could fulfill the requirements. However, a decade after its implementation, the Act has succeeded in minimizing the number of air transport accidents. At the same time, many airlines collapsed "by natural selection", unable to fulfill strict requirements in their operations [49]. Regulation also had economic implications. It was shown that fewer airlines operated fewer routes, whereas demand remained high. As a consequence, the aviation consumer has had to pay higher prices for tickets. While airline companies have had to struggle with their operational costs, the service provided to consumers has been minimal. This situation might also lead to minimizing the fulfillment of passengers' rights. The restrictive policy might also have an effect on tourism and business revenues.

At the beginning of 2020, the Covid-19 pandemic spread sporadically. As a result, the economy slumped dramatically and the transportation business suffered. Air transport was the most vulnerable compared to other transportation models [50]. Consequently, many existing airline companies returned their aircraft to the lessor and failed to pay their debts. Other airlines, like Indonesia AirAsia, stopped operations during the pandemic [51].

Due to the reduction in operational aircraft of various airline companies during the pandemic, the government issued a new Law on Job Creation Number 11/2020 in order to address this trend. Additionally, the new law included provisions for development of the aviation business sector and ownership regulations. Unlike the Aviation Act 1/2009, which required airline companies to own a certain number of aircraft, the new law instead offers greater flexibility by not mandating ownership of more than one aircraft. This approach reflects a shift away from the previous restrictive policy towards a more liberal one, similar to what was observed in the early 2000s. The requirement is further elaborated in Article 65 (2) of Government Regulation Number 32/2021, which mandates that commercial airlines with scheduled flights must possess at least one aircraft and have operational control over a minimum of two aircraft. Similarly, commercial airlines without scheduled flights must own at least one aircraft and maintain control over an additional aircraft.

Hence, the new law regarding the minimum aircraft ownership requirements for airlines, as specified in legislation other than the Aviation Act, needs to be adapted to meet safety standards and address any related safety concerns. Furthermore, there is a need to regulate the provisions in the Indonesian Aviation Act that pertain to safety restrictions based on aircraft ownership, to prevent the unfair competition that happened before the birth of the Indonesian Aviation Act.

In 2015, the Aviation Law, particularly the rules concerning minimum ownership of aircraft, was reviewed in the Indonesian Constitutional Court. However, the Court rejected it. The review concerned Article 118 (1), (2). It was argued by the applicant that the regulation on minimum ownership of aircraft discriminated against small capital entrepreneurs. In Court Decision No. 29/PUU-XIII/2015, the Court said that the aviation business is not merely about commercialization, but it is about the safety and security aspects. The Court affirmed that the aviation business had different characteristics and specifications. Therefore, the Court affirmed that the policy of minimum ownership of aircraft was not about discrimination, but due to the safety of the consumer, as well as the safety and security of the aviation industry.

3.4 Delegation of Indonesian air navigation

At the beginning of 2022, the government of the Republic of Indonesia and the Republic of Singapore signed a cooperation agreement on delegating air navigation services from Indonesia to Singapore. The agreement allowed both parties to renew the previous agreement signed in 1995. While the agreement in 1995 delegated the rights to air navigation services from sea level up to 37,000 feet for sector A, and from sea level to unlimited height level for sector B, the latest agreement of 2022 stipulates that Indonesia delegates its navigation services to Singapore in sectors A and B from the surface only up to 37,000 feet, and the rest is still under the control of Indonesia [52].

While the first agreement had never regulated any technical agreement, the replacement agreement implements two agreements at the same time. The first agreement, as an umbrella agreement, regulates the main focus of the agreement to delegate the services from Indonesia to Singapore. The second agreement is a technical agreement, known as a Letter of Operational Coordination Agreement (LOCA).

According to Article 458 of the Act, for fifteen years after the application of the Act, Indonesia is required to evaluate and serve the airspace of the Republic of Indonesia, which provides navigation services; its flights are delegated to other countries based on the agreement by the Indonesian aviation navigation service provider agency. The timeline of fifteen years runs from 2009 to 2024, though in fact, in 2022, the government of the Republic of Indonesia then continued the delegation rather than stopped the delegation.

The issue of jurisdiction within this agreement will directly impact its enforceability in the event of an accident occurring within Indonesia's airspace, which is under the control of Singapore. Additionally, this issue will heavily influence the LOCA, which will require the Air Traffic Controller (ATC) of Indonesia to operate within the Singapore Air Traffic Control Centre (SATCC). Learning from the case of the Uberlingen crash [53], as the Indonesian ATC assumes control within the SATCC, located in Singapore, it is highly likely that Singapore's jurisdiction will be applied more prevalently than Indonesia's jurisdiction based on the ATC position during the control.

The lack of clear jurisdictional guidelines regarding the Indonesian Aviation Act has heightened concerns about safeguarding the Indonesian air traffic control in accordance with the bilateral agreement between Indonesia and Singapore on delegation of navigation control [54]. Although Article 4 of the Act specifies that Indonesia's jurisdiction applies to all the activities within its airspace, including foreign aircraft operating within its airspace and Indonesian aircraft outside its territory, the issue of protecting the Indonesian ATC under Indonesia's jurisdiction falls outside the purview of the Act. It is important for the Act to regulate Indonesia's jurisdiction, particularly in relation to international obligations. This regulation should align with Article 28 of the International Civil Aviation's Chicago Convention 1944, which specifies how such obligations may be applied [55, p. 113].

In numerous state practices, air traffic controllers are protected in their operations by national law. This protection, referred to as immunity [56], is granted based on the air traffic controller's citizenship under national law, rather than being subject to the laws of other states. In Indonesia, the concept of 'immunity' as a privilege for air traffic controllers is not explicitly defined in the national regulations. The Indonesian Aviation Act, in Article 271 Paragraph 1, simply states, "The Government shall be responsible for the operation of flight navigation services for aircraft operating within the airspace being served."

There are several key issues in the Act that the Indonesian government must address to effectively manage the delegation of air navigation with Singapore in 2022. Specifically, the statutory mandate outlined in Article 458, coupled with the terms of the bilateral agreement, may lead to legal repercussions if not properly addressed. Therefore, it is imperative that the Indonesian government conducts a thorough review of the Act to ensure compliance and mitigate any potential legal risks [57].

3.5 Legal remedies

There are several aspects which need to be considered as subject for the future Aviation Legislation, such as aspects concerning the safety and security of aviation in improving the fulfilment of the rights of the passengers. With regard to other aspects, the rules adapting new technologies, including eco-friendly aviation rules, need to be proposed in the future Indonesian Aviation Act. If the rules are addressed, they will not only add several new obligations to the aviation business provider, but make it support a sustainable aviation system, as well. On the other hand, the need to refine rules regarding the airline network and operation nationally, regionally, as well as globally, including the coordination among the aviation authorities, will be an urgent agenda to improve the aviation system in Indonesia. In this context, an urgent agenda to modify the Indonesian Aviation Act needs to be prioritized in the *Prolegnas* (a priority agenda in the National Legislation Program by the House of Representatives). In doing so, the aviation authorities, the stakeholders and academia need to convince parliament to upgrade the modification of the Aviation Act, which has already been going on for 15 years alongside the dynamic of development and technologies in the aviation industry.

A significant learning opportunity arose from the Republic of Korea (ROK) which can also be implemented in Indonesia. In 2002, Korea was placed in Category 2 by the United States Federal Aviation Administration (FAA), indicating non-compliance with ICAO standards [58, p. 58]. To address this, ROK established the International Aviation Safety Task Force Team (IASTFT), consisting of representatives from various institutions involved in the preparation for the ICAO Universal Safety Oversight Audit Programme (USOAP). The task force was tasked with comparing international provisions against national legislation. The Constitution of the ROK delineates three branches of government: the National Assembly (legislative), the President (executive), and the Supreme Court along with its subordinate courts (judicial). Consequently, close cooperation with the Ministry of Government Legislation (MOLEG) was essential. It took two years to identify discrepancies and align national legislation with the Annexes to the Convention on International Civil Aviation, as well as to translate the relevant texts into English using appropriate aviation terminology [58, pp. 60–61].

Given to the problems analyzed, an urgent agenda of making a new regulation to adjust to the current problems in aviation is of the utmost concern in Indonesia. Indeed, the implementation of the Aviation Act in Indonesia is facing challenges in several crucial aspects, as a result not only of the USOAP, the Montreal Convention of 1999 and the requirements of the Montreal Protocol of 2014, but also of aviation development. The most crucial challenges are about concerns for the safety and security of passengers. The Indonesian government should provide legal guarantees for a range of factors, including regulatory, financial, institutional, and operational issues. Efforts to provide a legal framework

to adjust to the development of aviation will mainly involve addressing legislative and regulatory gaps.

In this context, there is a legal vacuum, which urgently requires a legal instrument for anticipating the worst consequences and boosting public confidence, as well as addressing the global issue of aviation safety and security. On the other hand, while the revision of the Aviation Act may be an urgent agenda, other aspects, such as political and institutional challenges may throw up barriers to fulfilling the international standards and global expectations. This is due to the fact that in Indonesia, legislative priority agendas are somewhat in the pocket of political interests. The legislator is not really concerned with the development of safety and security prior to the chaos and accidents in aviation. Another barrier to filling the legislation gap is the complicated interagency coordination, which influences the implementation of technical regulations relating to aviation.

Indonesia may need to consider regulating its aviation safety and security by executive laws or Government Regulation in Lieu of Law (*Perpu*) to prioritize efficiency and protection. In this context, the mechanism for making it an emergency may be the solution, as it is provided for in the Indonesian Constitution for several reasons. First, the safety and security of the aviation business are both fundamental to fulfilling the rights of passengers, particularly the right to life and the right to safety, as guaranteed in Article 28G of the Indonesian Constitution. The emergency law or other executive laws may have the content of immediate and urgent concerns regarding at least several aspects, such as anticipating catastrophic accidents, anticipating the sudden outbreak of a crisis, including a pandemic, disasters like volcanic eruptions which potentially happen in Indonesia, and earthquakes impacting the air travel, which happen everywhere in Indonesia. These are the reasons why Indonesia needs to have an emergency law to fill the gaps in its aviation regulations. Another rational justification for an emergency law is the fact that technological advancement and unforeseen crises threaten the aviation industry and passengers' rights.

The constitutional requirements of regulating the safety and security of aviation in this context are met with the qualification of 'urgent need' as is required in Article 22 of the Indonesian Constitution [59]. The urgent need requirement in this context includes the need to fulfill the constitutional rights in Article 28G of the Indonesian Constitution, providing for the safety and security of passengers as the constitutional obligation of the government of Indonesia. The mechanism of emergency law that is used *Perpu* by the executive will be a bridging law to gain legislative approval and may be converted into a revision of the Aviation Act.

The rationale for issuing an emergency law in this context will be in line with the Constitutional Court Decision No. 138/PUU-VII/2009 on the judicial review against the Emergency Law No. 4/2009. The emergency law on aviation is necessary because the existing law is out of date and does not meet with current aviation developments. It meets with the criteria of there being an urgent need to solve problems with aviation safety and security in Indonesia, bridging the regulation gaps as to the implementation of the results of the USOAP audit, Montreal Convention 1999 and interest on the implementation of Montreal Protocol 2014, as well as there being a legal gap in dealing with the current threats, including technological advances and the unforeseen crises of cyber-attacks and natural disasters.

4 Conclusion

The Indonesian Aviation Act 1/2009 has undeniably improved aviation safety and regulatory frameworks in response to the ICAO's USOAP findings. However, it still presents challenges in both the public and private sectors due to ambiguities in legal definitions, jurisdictional conflicts, and the implementation of international agreements like the Montreal Convention 1999. Therefore, there remains a pressing need for comprehensive legal reform to bring the Act in line with contemporary conditions and international standards. An amendment to the Act is highly recommended to address these issues and enhance its overall effectiveness. Hence, the stakeholders, government, and academia need to work together to convince parliament to expedite modification of the Aviation Act, which is not suitable for the present state of aviation development.

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Conflicts of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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