



## Comparison of Indonesian Airspace Security Regulations with the United States as Representatives of Legal Reform

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**Abstract:** *The absence of specific regulations governing airspace violations in Indonesia has created a legal vacuum that weakens the country's position in maintaining air sovereignty. Violations by foreign aircraft have not been responded to with a firm legal mechanism because the applicable regulations, namely, Law Number 1 of 2009 concerning Aviation, Government Regulation Number 4 of 2018 concerning Security of the Airspace of the Republic of Indonesia, and Regulation of the Director General of Civil Aviation Number: SKEP/195/IX/2008 concerning Flight Approval, are massively partial and administrative in nature. This study aims to evaluate the effectiveness of law enforcement against airspace violations and propose the formation of new regulations that are relevant to national strategic needs and in line with the 1944 Chicago Convention. The research method used is normative juridical with a statutory approach and comparative regulations, especially those of the United States. The results of the study indicate that regulations relating to law enforcement of Indonesian airspace violations are not optimal, especially when compared to United States regulations. Therefore, the formation of a special law is needed as a form of national legal reform to strengthen Indonesia's air sovereignty.*

**Keyword:** *Airspace Violation, Regulatory Formation, State Sovereignty, Legal Reform.*

### INTRODUCTION

A state is fundamentally defined as an organization possessing the highest authority within a given territorial boundary to enforce laws and exercise sovereign will over its jurisdiction. According to Jean Bodin's classical theory of sovereignty, sovereignty is characterized as supreme, perpetual, original, and indivisible authority (Bodin, 1962). This conception underscores that the state alone holds the legitimate power to regulate and defend its territory, including its airspace. In the realm of international law, the Montevideo Convention of 1933 elaborates on the criteria of statehood namely, a permanent population, defined territory, effective government, and the capacity to engage in international relations. Of these components, territorial integrity, including sovereign control over airspace, is of paramount significance. The 1944 Chicago Convention, particularly in Article 1, reaffirms that

"every State has complete and exclusive sovereignty over the airspace above its territory," thereby reinforcing the legal foundation for airspace governance.

Indonesia, as an archipelagic state strategically located between two oceans and two continents, occupies a geopolitically significant position. Its airspace, spanning across thousands of islands and vast maritime areas, serves not only as a domain of national jurisdiction but also as a crucial buffer in regional security dynamics. However, this strategic importance is not matched by robust legal and institutional protections. Empirical evidence indicates that Indonesia's airspace is frequently violated by foreign aircraft both civilian and military originating from neighboring and major power states such as Singapore, the United States, and Malaysia. Notable incidents include the unauthorized entry of Malaysian aircraft G-DVOR over Batam in 2022, a Pakistan International Airlines jet in 2014, and a Papua New Guinean official aircraft in the same year. These repeated violations, often conducted without diplomatic clearance or flight approval, signal a systemic vulnerability in Indonesia's air defense framework.

The core issue lies not merely in the recurrence of these violations, but in the inadequacy of Indonesia's legal and operational response. The prevailing legal instruments, such as Law No. 1 of 2009 on Aviation, Government Regulation No. 4 of 2018 on the Security of the Republic of Indonesia's Airspace (PP Pamwilud), and the Director General of Civil Aviation Regulation No. SKEP/195/IX/2008 concerning Flight Approval, predominantly emphasize administrative aspects. They fall short of addressing key elements such as the categorization of airspace violations, detailed interception protocols, and the imposition of substantive criminal sanctions. Additionally, the lack of implementing regulations and technical operational guidelines results in weak enforcement, rendering provisions such as the five billion rupiah administrative fine under PP Pamwilud practically ineffective.

Compounding the problem is the absence of an operational Air Defense Identification Zone (ADIZ) in Indonesia. Unlike nations such as the United States, South Korea, and Japan, Indonesia has not established or activated an ADIZ to serve as an early warning system. ADIZ functions as a vital instrument in modern airspace defense, allowing states to monitor, identify, and respond to approaching aircraft before they enter national airspace. Without such a system, Indonesia's capacity for early detection and preemptive interception is significantly compromised. Moreover, the institutional framework governing airspace violations fails to adequately integrate the Indonesian Air Force (TNI AU) into the investigatory and enforcement processes, despite the Air Force's primary responsibility in safeguarding national airspace.

The persistent legal institutional vacuum and the disjointed coordination between civil and military entities point to the urgent necessity of enacting a comprehensive legal regime specifically tailored to address airspace violations. Such legislation must move beyond administrative norms and encompass clear legal classifications, robust interception procedures aligned with international law, well defined civil military operational protocols, and multi-tiered sanctions with deterrent capacity. In light of Anselm von Feuerbach's theory of psychological coercion, laws must not only prohibit but must be capable of instilling fear of legal consequences to deter violations effectively.

Ultimately, safeguarding national airspace is not merely a matter of aviation regulation; it is a manifestation of a state's sovereignty and a test of its capacity to enforce its authority. The formulation of a dedicated law on airspace violations would serve as a pivotal measure in asserting Indonesia's sovereignty, ensuring legal certainty, enhancing regional deterrence, and reinforcing the state's legitimacy in both domestic and international arenas.

Based on the background above, this study raises two problem formulations:

1. How is law enforcement against airspace violations in Indonesia?
2. How can the formation of regulations be an effective step in overcoming airspace violations as a form of national legal renewal?

## METHOD

This research uses a normative legal method with a qualitative approach. Normative legal research focuses on the study of norms, rules, and legal principles related to national airspace sovereignty. The object of this research is the law itself, both as a set of rules and as a system that intersects with societal behavior. This research is descriptive in nature, aiming to systematically explain the legal issues faced and analyze the need for reform through a comprehensive and contextual legal review.

A legislative approach is applied by examining various national and international legal instruments, including the 1945 Constitution of the Republic of Indonesia, the 1944 Chicago Convention, Law Number 1 of 2009 concerning Aviation, Law Number 34 of 2004 concerning the Indonesian National Armed Forces, Government Regulation Number 4 of 2018 concerning Airspace Security of the Republic of Indonesia, and Regulation Number SKEP/195/IX/2008 concerning Aviation Approval. This research also uses a comparative approach by analyzing the United States regulatory framework, including the United States Code, the Code of Federal Regulations (CFR), and the Federal Aviation Regulations (FAR), specifically regarding ADIZ regulations, interception mechanisms, and civil-military command coordination. These materials were obtained through library research in several academic libraries, including the Andalas University Central Library and the Faculty of Law Graduate Library, as well as through access to the institutions' official websites.

The collected data was processed through editing, systematization, and descriptive explanation. Editing ensures the accuracy and relevance of the data, while systematization allows for a coherent and logical arrangement of the legal material to reflect the interrelationships between the data. The descriptive process involves narrating and analyzing the findings within a structured legal context. For data analysis, a qualitative method was used with an interactive model consisting of data reduction, data presentation, and conclusion drawing. Data reduction involves selecting relevant data aligned with the research theme, while data presentation organizes the information in a way that highlights current issues and necessary steps. Conclusions are drawn by interpreting the data presented, which is then continuously verified to ensure its validity based on the theory of state sovereignty, legal political theory, law enforcement theory, and psychological coercion theory.

## RESULTS AND DISCUSSION

### LAW ENFORCEMENT OF INDONESIAN AIRSPACE VIOLATIONS

Airspace is vertically aligned with a country's land and sea territory and forms an inseparable part of its sovereignty. The international community began to acknowledge the strategic and sovereign importance of airspace through the Paris Convention of 1919. Article 1 of the convention affirms that each state possesses "complete and exclusive sovereignty" over the airspace above its territory. The principles of air sovereignty were further reaffirmed in the Chicago Convention of 1944, which in Article 1 again declared the full and exclusive sovereignty of each state over the airspace above its land and territorial sea. This convention, now administered under the framework of the International Civil Aviation Organization (ICAO), has become the normative basis for member states including Indonesia in formulating national aviation regulations.

Indonesia embodies these international principles through Law Number 1 of 2009 on Aviation (Aviation Law). Article 5 of the law explicitly states that "The Unitary State of the Republic of Indonesia has full and exclusive sovereignty over the airspace of the Republic of Indonesia." The law mandates that foreign aircraft operating in Indonesian airspace must obtain flight approval, diplomatic clearance, and security clearance. To ensure technical

implementation, Indonesia enacted Government Regulation Number 4 of 2018 concerning Airspace Security (PP Pamwilud). This regulation elaborates on procedures for law enforcement in the field, authorizes civil-military coordination, and introduces the concept of an Air Defense Identification Zone (ADIZ). Under this scheme, any aircraft especially unscheduled or foreign civil aircraft entering Indonesian jurisdictional airspace is obligated to report its identity and flight plan to the Air Traffic Control (ATC). Violations without diplomatic or security clearance may result in administrative fines up to IDR 5 billion. Furthermore, PP Pamwilud authorizes enforcement actions ranging from verbal warnings, interception, forced landing, to the use of force, particularly against armed aircraft or drones that threaten national vital objects. These regulations are complemented by the Decree of the Director General of Air Transportation Number SKEP/195/IX/2008, which provides administrative guidelines for flight approvals and stipulates additional fines for unsanctioned flights.

Despite this relatively robust legal framework, Indonesia continues to face persistent airspace violations highlighting a gap between legal norms and enforcement realities. For example, in May 2022, a foreign civil aircraft of type DA62 registered in Malaysia violated Indonesian airspace en route from Kuching to Senai without flight approval or diplomatic clearance. Though the aircraft was forced to land in Batam, the only publicized response was administrative processing, with no clear sanctions announced. Similarly, a more serious incident occurred in January 2019 when an Ethiopian Airlines Boeing 777 entered Indonesian airspace without diplomatic clearance. The aircraft was intercepted and forced to land by F-16 jets. Although it carried sensitive cargo (an aircraft engine), and presented potential security risks, public information about penalties remains absent. Other notable violations include those by aircraft from Singapore, Australia, and the United States, often citing navigation control issues or lack of permit awareness. Yet, most cases ended either with warnings or modest fines, usually IDR 60 million an amount far below the potential national risk posed. From a defense perspective, unauthorized entries undermine territorial integrity and could potentially be precursors to intelligence gathering or hostile action. From a safety perspective, foreign aircraft flying without clearance or contact with ATC endanger civil aviation traffic. Furthermore, the repeated absence of firm legal consequences weakens deterrence and could embolden future violations.

## **COMPARISON OF INDONESIAN AIRSPACE SECURITY REGULATIONS WITH THOSE OF THE UNITED STATES**

LAW Number 1 of 2009 concerning Aviation (hereinafter referred to as the Aviation Law) is the main legal basis for regulating national aviation. One of the fundamental advantages of the Aviation Law is the explicit affirmation of the principle of state sovereignty over national airspace, as stated in Article 5 which states that "The Unitary State of the Republic of Indonesia has full and exclusive sovereignty over the airspace of the Republic of Indonesia." This provision is in line with the provisions in Article 1 of the 1944 Chicago Convention, which states that "Every country has full and exclusive sovereignty over the airspace above its territory." Thus, the Aviation Law has guaranteed that Indonesia as a sovereign country has the absolute right to regulate, supervise, and protect its national airspace from violations by foreign aircraft.

Aviation law also regulates the division of airspace, including prohibited airspace and restricted airspace, which indirectly function as protective devices against violations committed by foreign aircraft crossing strategic areas without permission. Article 6 of the Aviation Law stipulates that the government has the authority to determine these areas based on aviation interests, national economy, national defense and security, socio- culture and the air environment. In addition, in the explanation of the Aviation Law, there is also a mechanism

to limit or close restricted airspace at certain times based on emergency conditions or strategic needs. The regulations related to prohibited airspace and restricted airspace are also equipped with the determination of fines and imprisonment sanctions when violations occur. In taking action against violations of the two areas, the Aviation Law states that an investigation will be carried out by the relevant PPNS in coordination with the Police and then the results of the investigation will be submitted to the Public Prosecutor.

Although the Aviation Law contains a number of strategic advantages in asserting state sovereignty in airspace, it cannot be denied that this Law also has a number of substantial weaknesses that reduce its effectiveness in responding to and prosecuting violations of airspace by foreign aircraft. These weaknesses include legal and technical aspects, as well as weaknesses in integration with national defense and security legal instruments.

Law has not yet included a detailed definition and regulation of the boundaries of Indonesia's national airspace, especially in the context of sovereignty. Although Law Number 1 of 2009 recognizes state sovereignty over the airspace above its territory, the details regarding the scope of these boundaries, especially in dealing with issues of airspace contestation in border areas, are not regulated in depth. This law tends to only cite general principles as stated in the 1944 Chicago Convention, without adjusting them to Indonesia's geopolitical needs as an archipelagic country that has many overlapping airspaces with other countries. The absence of detailed regulations has led to the emergence of legal loopholes that have the potential to cause disputes or uncertainty in enforcing air sovereignty, especially in vulnerable border areas. In international practice, clarity of airspace delimitation is very important, not only for civil aviation purposes, but also for national defense. Countries such as Australia, Japan, and South Korea, for example, have established air defense identification zones (ADIZ), that is clear and internationally recognized, as part of an effort to strengthen claims and protection of its airspace. While in the Aviation Law article 7 it is stated that in order to implement the implementation of state sovereignty over the airspace of the Republic of Indonesia, the Government determines the Prohibited and Limited Airspace. The area is not the outermost part of the country's airspace, so it is not sufficient to help prevent violations of airspace.

Furthermore, the weakness of the Aviation Law is the absence of regulations regarding Air Defense. Identification Zone (ADIZ) explicitly in its articles. In fact, ADIZ is one of the most vital instruments for a country to detect and identify foreign aircraft approaching or entering national airspace, even before they actually enter sovereignty boundaries. Major countries such as the United States, Japan and South Korea have had a strong ADIZ system, and even used it as part of an early warning mechanism. warning and strategic response to air threats. Indonesia itself once had an air defense identification zone (ADIZ) in the 1960s that covered a small part of South Sumatra, Java, Madura, Bali, Lombok, and part of Sumbawa, but it was no longer consistently enforced. The absence of ADIZ in the Aviation Law shows that Indonesia does not have legal and technical instruments capable of providing outer limits for detection of air threats. In fact, in the world of aviation and defense, the ADIZ concept is very important to provide time and space for the military to carry out preventive interceptions.

In addition to the absence of an ADIZ, the Aviation Law is less clear in distinguishing between violations committed by foreign civil aircraft and foreign state aircraft. In fact, in international law, the treatment of these two types of aircraft has different consequences. Civil aircraft are generally subject to flight approval and civil provisions, while state aircraft have higher political and diplomatic consequences, and can be qualified as serious violations of sovereignty. The articles in the Aviation Law do mention criminal or administrative sanctions for violations of restricted airspace and/or prohibited airspace by foreign aircraft , but do not provide procedural and substantial distinctions regarding the types of violations committed by State Aircraft as stated in Article 3 letter c of the Chicago Convention . This has the potential to create legal ambiguity in enforcement practices, especially in military incident situations

such as violations by foreign reconnaissance aircraft. In addition, the sanctions imposed for violations of prohibited airspace are very far from deterrent, considering that prohibited airspace is a vital object area and a national strategic object, so it is often not comparable to the strategic losses and geopolitical threats caused by foreign air violations, especially by countries that are far superior in military technology. Thus, this Law does not provide space for the government to take other political or strategic actions automatically, such as issuing a protest note, carrying out diplomatic retaliation , or even forming a regional air security forum. When airspace violations are committed by a major foreign power, the Indonesian government is often forced to take a weak diplomatic path because it is not supported by strong and specific national laws for such scenarios.

On the other hand, the Aviation Law also leaves many important technical arrangements to implementing regulations, as stated in the Aviation Law , that:

*"Ketentuan lebih lanjut mengenai pelanggaran wilayah kedaulatan, penetapan kawasan udara terlarang, Kawasan udara terbatas, pelaksanaan tindakan terhadap pesawat udara dan personel pesawat udara, serta tata cara dan prosedur pelaksanaan tindakan pemakaian oleh pesawat udara negara diatur dengan Peraturan Pemerintah"* (Article 9, Undang-Undang Penerbangan).

Such matters often overlap or are never published consistently. For example, until now, technical regulations on air interception, the use of weapons against violating foreign aircraft and ADIZ protocols and areas are not available in a comprehensive and operational form. As a result, when airspace violations occur, law enforcement and defense officials do not have a strong legal basis to take action.

According to Thomas C. Schelling in his book Arms and Influence , coercion is not only about the use of physical force, but more about the convincing threat that consequences will occur if demands are not met (Thomas, 1966). According to Robert Pape in his theory of coercion , "coercion works by shaping the adversary's expectations" (Robert, 1996). This means that this strategy relies on the ability to influence the target's way of thinking, not on direct physical military domination. When associated with the theory of psychological coercion (psychological zwang), which in international relations is interpreted as an effort to influence the behavior of other countries without the use of direct physical force, the existence of firm legal norms is actually very important as a deterrent. Foreign countries that intend to violate Indonesian airspace will consider the risks faced if there are clear, firm, and consistently enforced domestic legal rules. In this context, the firmness of domestic law becomes part of the psychological coercion to prevent violations. Conversely, when legal norms are unclear or unclear, foreign countries tend to view the risk of violation as negotiable or even negligible, thus increasing the vulnerability of national airspace.

In addition to the Aviation Law , regulations regarding violations of the airspace of the Republic of Indonesia are contained in Government Regulation Number 4 of 2018 concerning the Security of the Airspace of the Republic of Indonesia (hereinafter referred to as PP Pamwilud ). PP Pamwilud is present as an implementing instrument for the mandate of the Aviation Law . One of the most fundamental and strategic advantages of PP Pamwilud lies in the formal recognition of the classification of national airspace into three main categories, namely prohibited airspace, restricted airspace, and ADIZ. Prohibited airspace is primarily established to protect national vital objects, such as the presidential palace, military command center, strategic airbase, nuclear installations, or important facilities directly related to national defense (Article 7, Undang-Undang Penerbangan). Meanwhile, restricted airspace is an airspace with irregular restrictions and can be used for flight operations, but only certain flights such as TNI aircraft (Article 8, Undang-Undang Penerbangan). And the most significant in this context is the existence of the ADIZ area, which functions as an early detection zone and initial identification for any foreign aircraft entering airspace outside the national sovereignty

area and requires aircraft to comply with and provide flight identification to air services (Muhammad Dzaki, 2022), but still within the range of a country's air defense. In the context of international air law, ADIZ is not a sovereign zone but a passive defense mechanism that is permitted as long as it does not conflict with the principles of the 1944 Chicago Convention and customary international law.

ADIZ has a dual function, namely first, as the outer layer of the country's air defense system, where defense authorities can monitor, request identification, and even intercept foreign aircraft before they enter territorial airspace, and second, as a form of projection of the state's will to maintain the integrity and sovereignty of its territory through early detection and prevention efforts. Historically, Indonesia actually had an ADIZ that was established in the 1960s, which covered the airspace above a small part of South Sumatra, all of Java, Madura, Bali, Lombok, and a small part of Sumbawa Island. The establishment of the ADIZ at that time was a response to the dynamics of the Cold War and the increasing international air traffic in the Southeast Asia region, especially as an anticipatory measure against air infiltration by foreign powers. However, over time, the management and implementation of the ADIZ were not continued consistently and were eventually no longer actively enforced, resulting in a vacuum in the national airspace initial identification system for decades.

In addition to the division of the area, PP Pamwilud also provides clear legal parameters in distinguishing the types of violations committed by foreign aircraft. The distinction is also accompanied by sanctions based on the type of violation and the type of aircraft used as stipulated in PP Pamwilud. Foreign civil aircraft are declared to have committed a violation if they enter the airspace of the State of Indonesia without having diplomatic permission, security permission and flight approval. Meanwhile, foreign aircraft are declared to have violated the airspace of the State of Indonesia if they do not complete diplomatic permission and security permission.

Another advantage of PP Pamwilud is the existence of a tiered sanction and legal action scheme, adjusted to the level of violation committed by foreign aircraft. For administrative violations, such as foreign civil aircraft that do not have a flight permit approval, diplomatic permit or security permit, the perpetrator will be subject to administrative sanctions in the form of a fine of up to a maximum of IDR 5,000,000,000.00 (five billion rupiah) as stipulated in Article 11 Paragraph (1). For more serious violations, such as entering prohibited airspace or restricted airspace without permission by foreign aircraft, this PP gives authority to the authorities to conduct interception. This is regulated in Article 29, which states that interception actions can be carried out by elements of the state defense (TNI AU) if the violation threatens national safety. This tiered sanction structure is very important in the context of the principles of proportionality and legality, where not all violations must be responded to in a repressive manner, but can be adjusted to the type and impact on national interests. In addition, PP Pamwilud also explicitly acknowledges the possibility of using weapons in dealing with violations of airspace by foreign aircraft that threaten the center of government, economic centers, national vital objects, and state safety. This provision opens up new space for the defense of the Indonesian State, in this case the TNI AU, to take military action in defending national airspace.

Although the PP Pamwilud appears to be an important step in strengthening the security of Indonesian airspace, if examined critically, there are various fundamental weaknesses that weaken the effectiveness of this regulation as a strategic legal instrument. PP Pamwilud only regulates sanctions against violations by foreign state aircraft (state aircraft) in the form of submitting a diplomatic protest note. This sanction instrument is clearly soft and disproportionate when compared to the character of the violation which can be strategic, aggressive, or even contain elements of military espionage. In the context of foreign military aircraft that deliberately cross Indonesian airspace without permission, the imposition of

sanctions that are only diplomatic in nature shows systemic weaknesses in the protection of national airspace.

Although the PP Pamwilud has regulated that interception actions against foreign aircraft violating airspace are the authority of the Indonesian Air Force, the regulations are not yet detailed and operational enough. If we examine Article 1 Paragraph (7), it states that:

*"Intersepsi adalah tindakan dari pesawat udara Tentara Nasional Indonesia untuk melaksanakan proses identifikasi terhadap pesawat udara yang dianggap melakukan tindakan pelanggaran terhadap ketentuan peraturan perundang-undangan".*

Use of the term "aircraft deemed to have committed a violation". The phrase "considered" implies an element of subjectivity in the assessment of an alleged violation of airspace. This means that the interception process can be carried out not only against violations that have been proven factually and legally, but also against aircraft that are perceived or suspected to have violated the provisions.

The use of military force based on "allegations" without strong legal procedures could result in violations of the principles of international law, such as the principles of necessity and proportionality in international humanitarian law. This principle requires that acts of violence may only be carried out if absolutely necessary and within limits that are proportional to the threat faced. Without clear evaluative criteria on what is meant by "considered a violation," interception actions risk being misinterpreted or criticized by the international community. Therefore, the word "considered" in this regulation should be balanced with further regulations regarding indicators of violations, identification procedures, and the limits of authority for interception actions so as not to become a tool for unilateral interpretation and to continue to guarantee accountability and legal legitimacy in air defense operations.

In Article 32 paragraph (3) of the PP Pamwilud, it is emphasized that the implementation of interception must be preceded by coordination between military elements (TNI) and air traffic control (ATC) personnel, so that important information can be conveyed to TNI aircraft and aircraft that violate. However, this regulation is still very limited and not operational enough. There is no further explanation about who is the final determinant in decision-making in the field, how the command scheme between the TNI AU and civil authorities takes place in real time, or how the protocol deals with situations that can trigger armed conflict. In addition, technical regulations such as Standard Operating Procedure (SOP) or Rules of Engagement (ROE) has not been described in this regulation. As a result, interception can be carried out without clear guidelines, which can ultimately lead to the risk of technical errors, escalation of conflict, or violations of international law, especially when it comes to civilian safety and human rights. In other words, although there is a basis for coordination, its implementation still does not have a complete and operational legal framework. This confirms that PP Pamwilud still requires implementing regulations or additional technical guidelines so that the enforcement of air sovereignty is truly effective and accountable.

Another aspect that deserves critical attention regarding the PP Pamwilud is the regulation regarding Air Defense Identification Zone (ADIZ). In the regulation, ADIZ is indeed mentioned and recognized as part of the national air defense system. The function of ADIZ is stated as an initial identification zone for foreign aircraft before entering the national air sovereignty area, thus providing an opportunity for Indonesia to conduct early detection, identity verification, and rapid response to potential external threats. However, this normative recognition is not accompanied by concrete implementation in the form of official determination of ADIZ boundaries. Until now, there has been no Indonesian ADIZ map published legally or announced to the international community through official flight navigation channels such as Aeronautical Information Publication (AIP).

Likewise, the provisions regarding the use of armed force in this PP are still ambiguous and are not equipped with applicable international legal principles. In the provisions of Article 27 paragraph (3) and (4), it is stated that:

"(3) Pesawat Udara Negara Asing yang bersenjata dan/atau Pesawat Udara Negara Asing pengintai yang mengancam pusat pemerintahan, pusat ekonomi, obyek vital nasional, dan keselamatan negara dilakukan tindakan penggunaan senjata. (4) Pesawat Udara Negara Asing tanpa awak yang melanggar wilayah kedaulatan Republik Indonesia dilakukan tindakan penggunaan senjata".

However, it does not explicitly mention the principles of proportionality and necessity , which are the main requirements under international humanitarian law and human rights law. This means that armed force may only be used if absolutely necessary and must be proportionate to the threat faced. Unfortunately, the PP Pamwilud does not regulate in detail when, how, and to what extent the use of force may be carried out, as well as how to avoid civilian casualties or unnecessary damage. This makes Indonesia's military actions, although aimed at defending sovereignty, still questionable if an incident occurs.

PP Pamwilud also has the weakness of a lack of integration with the development of surveillance and air defense technology. In the modern era, securing airspace requires an integrated system of radar, drones , surveillance satellites, and air defense control systems. PP Pamwilud only regulates manual procedures, without much accommodating the integration of sophisticated technology that is currently developing. From the theory of law enforcement, technological developments are part of modern legal means. These means are not just complementary, but basic needs so that the state is able to keep up with the increasingly complex modes of air violations.

In addition to the Aviation Law and PP Pamwilud , regulations related to airspace violations that need to be criticized are the Regulation of the Director General of Air Transportation Number: SKEP/195/IX/2008 concerning Implementing Instructions for Flight Approvals ( Flight Approval ) hereinafter referred to as Flight Approval . One of the main advantages of this regulation is the clarity of technical regulations related to entry permits for foreign civil aircraft into Indonesian airspace. This regulation is an important administrative framework, especially in regulating the licensing process, validation of flight documents, and operational requirements that must be met by foreign operators. In the context of air border control, this regulation also emphasizes the importance of authorization as an initial step in preventing airspace violations.

However, this regulation also contains a number of fundamental weaknesses. For example, the amount of the administrative fine set is only Rp 60,000,000.00 (sixty million rupiah), which is considered too small when compared to the scale of the violation that has the potential to threaten the sovereignty of a country's airspace. For foreign airlines or international operators, this amount does not have a deterrent effect, and even seems merely symbolic. In addition, there is a lack of synchronization with the PP Pamwilud which actually stipulates administrative sanctions of up to Rp 5 billion for flight violations. approval . This also shows the lack of integration between regulations that should be in a harmonious legal system. This inconsistency can confuse implementers in the field and weaken the effectiveness of enforcement.

In addition, the regulation does not provide a mechanism for further action if violations are repeated. In practice, violations such as unauthorized entry or manipulation of flight plans can occur repeatedly, and without progressive or accumulative sanctions, this leaves a serious gap in law enforcement. This regulation does not yet regulate the monitoring mechanism for data falsification or manipulation of flight documents. approval , which is a serious violation in the aviation world. Without any monitoring instruments or further verification, the flight

document approval is vulnerable to misuse for non-civilian interests that threaten national security.

As has been explained, the three regulations currently in force are the Aviation Law , PP Pamwilud , and Flight Approval each has a contribution in regulating traffic and securing national airspace. However, the three have not yet formed an integrated legal system. The Aviation Law focuses more on safety and civil licensing aspects, PP Pamwilud regulates defense aspects but is still minimal in technical operational details and civil-military coordination, while the Minister of Transportation Regulation on Flight Approval is administrative in nature and carries sanctions that are too light for serious violations.

The importance of establishing new regulations related to violations of Indonesian airspace cannot be separated from the empirical and analytical facts that have been described previously. Mahfud MD in his conception of legal politics emphasized that legal politics is the direction of legal policy set by the state to achieve national and state goals. Thus, the establishment of new regulations is not only a response to technical administrative problems, but is an expression of national political will to protect the territorial integrity of the state, uphold the supremacy of law in all areas of its jurisdiction, including airspace, and demonstrate state sovereignty in real terms in international interactions. Cases of air violations that have occurred in recent years, such as Singaporean fighter jets frequently conducting exercises in the Riau Islands airspace without permission, make it clear that without strong legal instruments, the state has difficulty taking firm steps. The state is forced to rely on diplomacy or administrative actions, which in some conditions, do not sufficiently reflect the firmness and strength of the state's law.

To emphasize the urgency of establishing new regulations in Indonesia in the field of airspace law enforcement, it is important to compare it with countries that have built a comprehensive airspace security system. The United States is the most representative example in this regard. The country has had an integrated, technical, and operational regulatory system to manage, detect, and prosecute any form of violation of its airspace since the 1950s.

One of the main pillars of the airspace protection system in the United States is the existence of ADIZ which has been actively enforced since the Cold War era. Article 14 CFR, Chapter 1, Suchapter F, Part 99, Subpart A § 99.3 defines an ADIZ as :

“an area of airspace over land or water in which the ready identification , location , and control of all aircraft ( except for Department of Defense and law enforcement aircraft ) is required in the interest of national security ”

ADIZ is an initial identification zone that is outside the boundaries of national airspace, but functions as an initial layer of defense to detect and identify foreign aircraft before they enter the sovereign airspace of the United States de jure. The implementation of this ADIZ is not only a strategic military step, but has also been institutionalized into the national legal system of the United States, making it a binding legal instrument for all international aviation actors. In the United States air defense system, ADIZ is an important component in maintaining the integrity and sovereignty of national airspace. ADIZ is not always within territorial airspace, but rather stretches around the outer boundaries of national airspace, especially along coastal borders, such as the mainland of the United States, Alaska , Hawaii, and Guam. The determination of the ADIZ area is directly stated in its regulations by covering its boundaries. Compared to the United States, Indonesia is still far behind in terms of ADIZ implementation and utilization. Although the term ADIZ has been mentioned normatively in Article 6 of the PP Pamwilud , until now there has been no implementation, no Indonesian ADIZ has officially announced its boundaries, implemented its operations, or supported by an early detection system like in the United States.

The absence of an active ADIZ reflects a gap in Indonesia's airspace surveillance system. Without an ADIZ, Indonesia does not have an initial layer of defense capable of detecting,

identifying, and responding to the presence of foreign aircraft before they enter the national sovereign territory. As a result, foreign aircraft can easily enter the boundaries of Indonesian jurisdictional airspace without being subject to adequate surveillance mechanisms, unless the foreign aircraft has actually violated the formal territorial boundary line.

In addition to the implementation of ADIZ, the United States also established Warning Areas , which are a strategic instrument that plays an important role in forming an outer layer of protection against potential threats from the air.

“A warning area is airspace of defined dimensions , extending from three nautical miles outward from the coast of the US, that contains activity that May be hazardous to non-participating aircraft. The purpose of such warning areas is to warning non-participating pilot of the potential danger .A warning area may be located over domestic or international water or both”.

Warning Areas are designated airspace over international waters immediately adjacent to US sovereign territory, and are used for high-risk military activities, such as fighter jet maneuver exercises, live firing, missile exercises, and simulated interception of air threats .

One important indicator in assessing the effectiveness of an air defense regulation is the firmness of legal sanctions imposed on violations of airspace by foreign aircraft. In the national legal framework, sanctions for violations of airspace are regulated in the Aviation Law and PP Pamwilud . In Article 401 and Article 402 of the Aviation Law , it is stated that violations of prohibited airspace can be subject to a maximum imprisonment of eight years or a maximum fine of Rp500,000,000.00 (five hundred million rupiah) and for restricted airspace, a maximum imprisonment of three years or a maximum fine of Rp500,000,000.00 (five hundred million rupiah). Meanwhile, PP Pamwilud in Article 11 stipulates a maximum administrative sanction of Rp5,000,000,000.00 (five billion rupiah) for unscheduled foreign civil aircraft entering Indonesian airspace without diplomatic permission, security permission, and flight approval . On the other hand, for cases of violations by foreign civil aircraft without flight approval , Regulation of the Director General of Air Transportation No. SKEP/195/IX/2008 stipulates an administrative fine of only Rp60,000,000.00 (sixty million rupiah), a nominal amount that is not comparable to the potential threat that can be caused by such violations. Meanwhile, for violations committed by foreign aircraft in Article 37 of the PP Pamwilud, a diplomatic protest note is imposed.

If we look at the United States regulations in implementing a sanctions system for acts of violating airspace, it is much stricter, more progressive and more layered, as regulated in 14 CFR Part 99 concerning Security. Control of Air Traffic . Any foreign aircraft entering the US ADIZ is required to file a flight plan , actively communicate with air traffic controllers, and activate the transponder. Violation of this rule can trigger military interception by NORAD, forced landing, seizure of the aircraft, and legal action involving the State Department. In addition, the US also has a legal basis in US Code Title 49, Subtitle VII, §46307, which allows criminal action against violations that endanger national security.

In the United States legal system, provisions regarding sanctions for violations of airspace by foreign aircraft are stated in the United States Code, the Code of Federal Regulations and its diplomatic provisions. Article 49 US Code § 40103(d) states that: “Aircraft of the armed forces of a foreign country May be navigated in the United States only when authorized by the Secretary of State”. This provision confirms that foreign state aircraft must obtain diplomatic clearance . clearance ) before entering or crossing the airspace of the United States. If a foreign aircraft enters without such clearance, the violation is considered a threat to the national defense and is subject to sanctions as set forth in 49 US Code § 46307, which states: “A person shall be well done under title 18, imprisoned for not more than 5 years, or both, if the person knows or willingly violates section 40103(b)(3) of this title ...”. In other words, violation of airspace by an unauthorized foreign aircraft can be subject to criminal

penalties of up to 5 years in prison and/or a criminal fine under Title 18 of the US Code (maximum \$10,000).

For foreign civil aircraft, the United States regulates through 14 CFR Part 375 on Navigation of Foreign Civil Aircraft within the United States. In this regulation, it is explained that foreign civil aircraft must obtain permission from the US aviation authorities (usually through the FAA and the Department of Transportation) before entering or operating in U.S. airspace. Section 375.10 states: "No foreign civil aircraft shall be navigated into the United States unless there is in force for such aircraft permit issued by the Department of Transportation ...". Violation of this provision will be subject to administrative sanctions as set forth in 49 US Code § 46301, which states: "A person is liable to the United States Government for a civil penalty of not more than \$25,000 for each violation ..." Thus, foreign civil aircraft entering without permission ( flight permit ) can result in administrative fines of up to \$25,000 per violation, as well as possible aircraft impoundment if deemed dangerous.

Given the weaknesses in Flight regulations Approval in Indonesia, related to the absence of sanctions for falsifying flight documents, this is in contrast to the legal system in the United States. In 49 US Code § 46306(e) It is expressly stated that any individual who intentionally falsifies, changes, or uses illegally documents related to aircraft registration or operating permits may be subject to criminal sanctions in the form of confiscation and seizure of the aircraft in question. This provision confirms the legal commitment of the United States in ensuring the integrity of the aviation licensing system and anticipating the potential for serious violations of air security. This assertiveness provides added value in the context of law enforcement and a deterrent effect..

Law enforcement against violations of airspace in the United States is also clearly and firmly regulated in its regulations. When violating established flight regulations, the first action taken by the FAA is administrative resolution. In taking this administrative action, it determines whether the violation requires law enforcement action. If after an inspection and it turns out that law enforcement action is not necessary, it will be resolved by issuing a warning and issuing a letter of correction , but if after an inspection and it cannot be resolved administratively, then law enforcement action will be taken as stipulated in the Code of Federal Regulations title 14, chapter 1, subchapter B, subpart C. This section explains the formal procedures used to enforce the law against individuals or entities that violate aviation regulations, including forms of legal sanctions, consent orders and aircraft seizure.

The urgency to form special regulations in the form of laws is not only preventive, but also as a form of manifestation of Indonesian legal politics in protecting its territory in accordance with the mandate of Article 1 paragraph (1) of the 1945 Constitution that "The State of Indonesia is a unitary state in the form of a Republic". In other words, regulations are an instrument of sovereignty. If the United States alone, with its federal system, is able to have coordinated rules between civil and military, then Indonesia as a unitary state should be even more capable of building a strong, courageous legal system that supports national air sovereignty.

The formulation of regulations regarding airspace violations in Indonesia should not be reduced to merely a Government Regulation or Presidential Decree, given that their scope directly relates to state sovereignty, cross-jurisdictional law enforcement, and the use of state force in maintaining territorial integrity. Ideally, these regulations should be at the level of a law, not only to provide stronger binding force but also to guarantee constitutional legitimacy, legal certainty, and a normative position as a lex specialis in the national air law system. The presence of a law will also reflect the state's seriousness in building a firm, modern, and authoritative airspace legal system, while also being part of a national legal reform agenda that philosophically reflects the protection of state sovereignty, sociologically addresses the practical needs of authorities in dealing with the dynamics of cross-border threats, and legally

strengthens the basis for action against airspace violations. However, in formulating the substance and structure of these regulations, Indonesia cannot stand alone; it must consider the norms and principles of international law, particularly the ratified 1944 Chicago Convention. Article 1 of the Convention affirms each state's full and exclusive sovereignty over the airspace above its territory, while Article 3 bis prohibits the use of force against civil aircraft and obliges states to prevent interceptions that endanger aviation safety. Therefore, procedures for interception, forced landings, and sanctions for airspace violations must be designed in a proportional, accountable, and transparent manner, clearly distinguishing between violations by military aircraft, non-scheduled civil aircraft, and scheduled commercial flights. Furthermore, Article 9 provides the basis for states to establish prohibited areas for national security reasons, with the obligation to notify ICAO so that these zones gain international legal recognition. Therefore, national regulations need to include provisions regarding the establishment, announcement, and renewal of special airspace such as prohibited zones, restricted zones, ADIZs, and national air defense zones. Furthermore, coordination mechanisms between civil, military, and law enforcement authorities must also be strictly regulated to create an integrated airspace management system, as adopted by many countries in facing the increasingly complex geopolitical dynamics of the Indo-Pacific. Finally, criminal and administrative provisions must be formulated in a structured manner in accordance with the principle of due process of law, with a clear classification of violations between administrative errors (such as lack of diplomatic clearance or flight approval) and criminal acts (such as espionage or unauthorized state flights). Thus, the new regulation in the form of a law will be a concrete manifestation of national legal policy in strengthening Indonesia's air sovereignty, without ignoring the principles of international law that have become a shared commitment within the global community.

## CONCLUSION

Law enforcement against airspace violations in Indonesia has not been running optimally. This is due to the absence of specific regulations that explicitly regulate airspace violations, whether by unauthorized foreign civilian aircraft or foreign military aircraft. The current regulations, namely Law Number 1 of 2009 concerning Aviation, Government Regulation Number 4 of 2018 concerning Airspace Security, and Decree of the Minister of Transportation/SKEIP/195/IX/2008 concerning Flight Approval, emphasize the administrative and safety aspects of civil aviation, and regulate various aspects such as violation classification, intelligence procedures, criminal sanctions, and civil-military command coordination. The absence of a valid ADIZ system, weak sanctions regulations, and minimal legal instruments have resulted in the state lacking adequate legal instruments to deal with violations of air sovereignty.

The development of new regulations for various national legal reforms requires strategic and comprehensive steps. These regulations must be present in various special laws, in order to have higher normative legitimacy and political legitimacy. These regulations must begin the definition and classification of airspace violations, the regulation of restricted and prohibited airspace areas, the establishment and operation of Air Disability Identification Zones (ADIZs), intelligence protocols and the use of airspace in accordance with intelligence principles, and a unified coordination system between civil and military authorities. As an effort to harmonize the law, these regulations must also be in line with the 1944 Chicago Convention, particularly regarding the recognition of state sovereignty over its territory and the obligation to respect the territory of other states. Comparative studies with the United States show that the United States has a more structured legal system and is able to provide effective prevention and enforcement. With this, Indonesia has successfully formulated regulations that not only address the current

legal vacuum, but also strengthen the country's strategic position in maintaining and upholding its sovereignty amidst regional geopolitical challenges.

## REFERENSI

Abeyratne, R. (2014). *Convention on international civil law: A commentary*. Springer.

Abubakar, R. (2012). *Pengantar metodologi penelitian*. Suka Press.

Ali, A. (2010). *Menguak teori hukum (Legal theory) dan teori peradilan (Judicialprudence) termasuk interpretasi undang-undang (Legisprudence)*. Kencana.

Augustin, J. V. (1998). *ICAO and the use of force against civil aerial intruders* (Tesis, McGill University).

Cialdini, R. B. (2006). *Influence: The psychology of persuasion*. Harper Business.

Crawford, J. (2002). *The International Law Commission's articles on state responsibility*. Cambridge University Press.

Diedericks-Veschoor, I. H. P. (1983). *An introduction to air law*. Kluwer Law.

Direk, Z., & Lawlor, L. (2024). *Blackwell companion to philosophy: A companion to Derrida*. John Wiley & Sons.

Efendi, J., & Ibrahim, J. (2016). *Metode penelitian hukum normatif dan empiris*. Prenada Media Group.

Farida, M. F. I. (2007). *Ilmu perundang-undangan: Jenis, fungsi, dan materi muatan*. Kanisius.

Friedman, L. M. (1987). *The legal system: A social science perspective* [E-book]. Russell Sage Foundation.

Geisler, N. L. (2012). *A history of western philosophy, volume 2: Modern and postmodern: From Descartes to Derrida*. Bastion Books.

Hadiwijoyo, S. S. (2011). *Perbatasan negara dalam dimensi hukum internasional*. Graha Ilmu.

Hartono, C. F. G. S. (1991). *Politik hukum menuju satu sistem hukum nasional*. Alumni.

Hoesein, Z. A. (2012). *Pembentukan hukum dalam perspektif pembaharuan hukum*. *Jurnal Rechtsvinding*, 1(2).

Huberman, A. M., & Miles, M. B. (2009). *Analisis data kualitatif*. Universitas Indonesia Press.

International Civil Aviation Organization. (1944). *Convention on International Civil Aviation*. Chicago Convention.

Kaelan. (2005). *Metode penelitian kualitatif*. Bandung Milles.

Kementerian Perhubungan RI. (2008). *Peraturan Direktur Jenderal Perhubungan Udara Nomor SKEP/195/IX/2008 tentang Petunjuk Pelaksana Persetujuan Terbang (Flight Approval)*.

Krasner, S. D. (1999). *Sovereignty: Organized hypocrisy*. Princeton University Press.

Kusumaningrum, A., & Putra, W. V. (2019). *Hukum udara: Kepentingan Indonesia di ruang udara nasional*. UB Press.

Likada, F. (1987). *Masalah lintas di ruang udara*. Binacipta.

Mahfud, MD. (2017). *Bahan kuliah politik hukum*. PDIH Universitas Diponegoro.

Mahmudji, S., & Soekanto, S. (2003). *Penelitian hukum normatif: Suatu tinjauan singkat*. Raja Grafindo.

Manan, B. (1987). *Peranan peraturan perundang-undangan dalam pembinaan hukum nasional*. Armico.

Marzuki, P. M. (2011). *Penelitian hukum*. Kencana.

Mauna, B. (2000). *Hukum internasional: Pengertian, peranan dan fungsi dalam era dinamika global*. Alumni.

Miles, M. B., & Huberman, A. M. (1984). *Qualitative data analysis*. Sage Publications.

Mills, K. (1998). *Human rights in the emerging global order: A new sovereignty*. McMillan.

Muladi. (2002). *Hak asasi manusia, politik dan sistem peradilan pidana* (Cet. 2). Badan Penerbit Universitas Diponegoro.

Nugroho, Y. A. (2006). Kedaulatan wilayah udara Indonesia. Bumi Intitama Sejahtera.

Pape, R. A. (1996). Bombing to win: Air power and coercion in war. Cornell University Press.

Putro, Y. M., & Nugraha, R. A. (2025). Urgensi pembentukan regulasi pengelolaan ruang udara nasional. Hukumonline.

Republik Indonesia. (1945). Undang-Undang Dasar Negara Republik Indonesia Tahun 1945.

Republik Indonesia. (1946). Undang-Undang Nomor 1 Tahun 1946 tentang Peraturan Hukum Pidana. Lembaran Negara RI Nomor 127 Tahun 1958.

Republik Indonesia. (1981). Undang-Undang Nomor 8 Tahun 1981 tentang Hukum Acara Pidana. Lembaran Negara RI Nomor 76 Tahun 1981.

Republik Indonesia. (2004). Undang-Undang Nomor 34 Tahun 2004 tentang Tentara Nasional Indonesia. Lembaran Negara RI Nomor 4439 Tahun 2004.

Republik Indonesia. (2009). Undang-Undang Nomor 1 Tahun 2009 tentang Penerbangan. Lembaran Negara RI Nomor 4956.

Republik Indonesia. (2018). Peraturan Pemerintah Nomor 4 Tahun 2018 tentang Pengamanan Wilayah Udara Republik Indonesia. Lembaran Negara RI Nomor 6181.

Sibuea, H. P. (2002). Ilmu politik hukum sebagai suatu cabang ilmu pengetahuan. Erlangga.

Sinurat, A. (2023). Azas-azas hukum pidana materil di Indonesia. Lembaga Penelitian Universitas Nusa Cendana.

Soekanto, S. (2004). Faktor-faktor yang mempengaruhi penegakan hukum. UI Press.

Soekanto, S. (2005). Pengantar penelitian hukum. Universitas Indonesia Press.

Sriwidodo, J. (2020). Hukum dalam perspektif sosiologi dan politik di Indonesia. Kepel Press.

Suryana. (2010). Metodologi penelitian: Model praktis penelitian kuantitatif dan kualitatif. Universitas Pendidikan Indonesia.

Susetyo, H., et al. (2021). Percikan pemikiran Makara Merah. Badan Penerbit Fakultas Hukum Universitas Indonesia.

Syahmin, A. K., Utama, M., & Idris, A. (2012). Hukum udara dan luar angkasa (Air and Outer Space Law). Unsri Press.

The Seventh International Conference of American States. (1933). Montevideo Convention on the Rights and Duties of States.

Triningsih, A. (2017). Politik hukum pendidikan nasional: Analisis politik hukum dalam masa reformasi. Mahkamah Konstitusi RI.

United States of America. (n.d.). Title 14 CFR Part 73 – Special Use Airspace.

United States of America. (n.d.). Title 14 CFR Part 91.137 – Temporary Flight Restrictions.

United States of America. (n.d.). Title 18 U.S. Code § 32 – Destruction of Aircraft or Aircraft Facilities.

United States of America. (n.d.). Title 49 U.S. Code § 40103 – Sovereignty and Use of Airspace.

United States of America. (n.d.). Title 49 U.S. Code § 46307 – Penalties for unlawful operation.

Virgiaswara, W. P., & Kusumaningrum, A. (2019). Hukum udara: Kepentingan Indonesia di ruang udara nasional. UB Press.

Zuchri, A. (2021). Metode penelitian kualitatif. Syakir Media Press.