Jurnal Ilmu Hukum Prima
Vol. 7 No. 1 April 2024
E-ISSN : 2614-2244
ISSN : 2088-5288

Indonesian Airspace Sovereignty After the Jakarta and Singapore Flight Information Region Adjustment From the Perspective of International Law

Ledy Diana[1], Jupri Yanus Halawa[2], Maria Maya Lestari[3]
[1,2,3]Fakultas Hukum. Universitas Riau
Corresponding Author:
ledy.diana@lecturer.unri.ac.id

ABSTRACT

Indonesia, as one of the largest archipelagic states, possesses a vast and strategically significant airspace intersecting some of the busiest international flight routes in the Asia-Pacific region. The management of this airspace is critical to upholding national sovereignty and security. However, parts of Indonesia's strategic airspace, particularly over the Riau Islands and Natuna, remain under Singapore's control through the delegation of the Flight Information Region (FIR). The 2022 FIR boundary adjustment agreement between Jakarta and Singapore is seen as a diplomatic milestone that expands Jakarta FIR coverage. Nonetheless, it controversially extends the delegation of air navigation management up to 37,000 feet to Singapore in sectors A and B. This situation raises concerns over the full exercise of Indonesia's air sovereignty, as mandated by Article 1 of the 1944 Chicago Convention and Article 458 of Law No. 1/2009 on Aviation. This normative legal research, based on literature and interviews, finds that the agreement does not significantly alter Indonesia's legal sovereignty. It also highlights disparities in FIR management and recommends that Indonesia develop a revised roadmap toward full FIR control, treating the Riau and Natuna airspace as a critical border area requiring absolute sovereignty.

Keywords: FIR; Air Sovereignty; Riau Islands and Natuna; Agreement.

INTRODUCTION

The sovereignty of a state is a fundamental mechanism to ensure the absence of external domination (Pavel, 2022). A sovereign state must exercise full control over its territory, possess exclusive internal authority, and remain independent from external power (Ziolkowska, 2021). Sovereignty grants a state the right to govern its land, borders, population, and all activities within its jurisdiction (Leib, 2015). In international law, sovereignty is understood through three key aspects: external sovereignty (freedom to engage in relations without foreign interference), internal sovereignty (the power to

E-ISSN : 2614-2244
ISSN : 2088-5288

regulate domestic institutions and laws), and territorial sovereignty (absolute authority over individuals and objects within national borders) (Bosselmann, 2020).

This concept of sovereignty also extends to airspace. For archipelagic countries like Indonesia, airspace is a critical component of territorial sovereignty, particularly given its strategic geographic position between Asia and Australia, and between the Indian and Pacific Oceans. Control over airspace determines who may operate within it, especially with regard to air traffic. While outer space is governed by the principle of "common heritage of humankind," national airspace is considered under complete and exclusive sovereignty of the state above its land and maritime territory (Mauna, 2001).

One of the most important aspects of air traffic management is the Flight Information Region (FIR), which designates a portion of airspace where flight information and alerting services are provided to ensure aviation safety and efficiency. (Supriyadi, 2020) FIR arrangements are not inherently sovereignty-related, but in practice, they often raise legal and political questions, especially when a state's FIR is delegated to another country.

The discussion on the legal status of airspace for aviation began at the Paris Conference of 1910. This initiative was spearheaded by France, which observed the massive growth of aviation in Europe that disregarded the sovereignty of the states below due to the absence of regulations governing it. Eventually, this led to the adoption of the Paris Convention of 1919 (Kazemi, 2022). Article 1 of the Convention stipulates that every state has full and exclusive sovereignty over the airspace above its territory. The logical consequence of this regulation is that states are granted the right to regulate air traffic operating within their own territories (Mauna, 2013).

A more intensive discussion on airspace regulation was carried out in the Chicago Convention of 1944 (Huttunen, 2021), which also included provisions on technical and aviation safety matters (Efthymiou & Papatheodorou, 2019). Article 1 of the Convention affirms that "The Contracting States recognize that every state has complete and exclusive sovereignty over the airspace above its territory," meaning that each state not only possesses full sovereignty but also exclusivity over the airspace above its territory (Pratama & Nanda, 2023). This principle runs parallel with Article 2 of the United Nations Convention on the Law of the Sea (UNCLOS) 1982, which states that

E-ISSN : 2614-2244
ISSN : 2088-5288

sovereignty extends to the airspace above the territorial sea as well as the land and subsoil beneath it

Indonesia has long faced such a situation in relation to the FIR over the Riau Islands and Natuna (Martono & Sudiro, 2012), which, despite being located above Indonesian sovereign territory, have been under Singapore's management since 1946. This delegation was initially justified by Indonesia's absence from the International Civil Aviation Organization (ICAO) and its limited technical capacity in the early years of independence. (Stilwell, 2020) However, despite improved capabilities and continued diplomatic efforts, full control has not been restored (Husna & Riyanto, 2019).

In 2022, the Indonesian government issued Presidential Regulation No. 109 on the adjustment of FIR boundaries between Jakarta and Singapore (Indonesia, 2024). The agreement, signed between the two countries, was presented as a diplomatic achievement reaffirming Indonesia's airspace sovereignty. However, the regulation still delegates the provision of air navigation services up to 37,000 feet in certain sectors to Singapore, raising controversy among academics and practitioners. The provisions regarding such delegation can be found in Article 2 paragraphs (1) and (2) of the Agreement between the Government of Indonesia and the Government of Singapore on the Realignment of the FIR between Jakarta and Singapore, under which the Republic of Indonesia is obliged to delegate to the Republic of Singapore the provision of Air Navigation Services (ANS) from the surface up to 37,000 feet within the adjusted Jakarta FIR boundaries, designated as Sector A and Sector B.

Critics argue that this undermines Indonesia's sovereignty and contradicts both the spirit of Article 1 of the 1944 Chicago Convention and national legislation, particularly Article 458 of Law No. 1 of 2009 on Aviation, which mandated the repatriation of delegated FIR services within 15 years of the law's enactment. In light of existing regulations and historical conditions, the Indonesian government should strive to attain full ownership of the airspace over the Riau Islands and Natuna. What must be taken into account is the lack of clarity regarding whether the FIR issue is purely a technical matter, one of sovereignty, or an even more complex issue (Wahyudin, 2022); the formulation approach that is not comprehensive; the minimal public consultation or community involvement; the preparation of negotiations; the attention given to the benefits of the agreement; as well as the ambivalence in accommodating both prosperity interests and national interests

E-ISSN : 2614-2244
ISSN : 2088-5288

(Sutrisno & Romdoni, 2022). To exercise state sovereignty over Indonesian airspace, the government must be able to enforce authority and responsibility in managing the airspace to support aviation interests, national economy, defense and security, socio-cultural aspects, and the air environment, in line with the mandate of national laws and the provisions of international air law (Walewangko, 2021).

This study aims to assess Indonesia's legal sovereignty over its airspace following the 2022 FIR adjustment agreement with Singapore, from the perspective of international law. In addition to analyzing the post-agreement status, the study also compares this bilateral arrangement with similar agreements in other jurisdictions and seeks to identify potential legal or diplomatic measures that Indonesia can adopt moving forward. The research employs a normative legal method, relying on both literature review and interviews, with primary, secondary, and tertiary legal materials as sources.

METHODS

This study employs a normative legal research method (doctrinal research), which focuses on the examination of legal principles, doctrines, and norms through the analysis of authoritative texts and legal instruments. The purpose of using this method is to assess the legal status of Indonesia's airspace sovereignty following the 2022 adjustment of the Flight Information Region (FIR) boundary with Singapore. The research is centered on the principles of state sovereignty and pacta sunt servanda. Data collection was conducted through library research and structured interviews. The legal materials analyzed include primary sources such as international conventions (e.g., the Chicago Convention 1944, UNCLOS 1982), national laws (e.g., Law No. 1 of 2009 on Aviation), and the official text of Presidential Regulation No. 109 of 2022, as well as secondary materials like academic publications, journals, and legal commentaries, and tertiary materials such as legal dictionaries and news articles. Structured interviews were conducted with selected legal experts to enrich the legal analysis. The data were processed using a qualitative-descriptive approach with deductive reasoning, applying general legal principles to the specific case of Indonesia's FIR. Quantitative elements were also integrated to support key points, particularly in relation to the duration and terms of the agreement. This methodology ensures the validity and reliability of the study and allows replication in future research involving international air law and state sovereignty.

E-ISSN : 2614-2244
ISSN : 2088-5288

RESULTS

Indonesia's Legal Sovereignty Over Its Airspace After the 2022 Jakarta–Singapore FIR Adjustment

The delegation of airspace management over the Riau Islands (Kepri) and Natuna to Singapore has taken place since the early days of Indonesia's independence, namely since 1946 (Indrawati, 2022). However, in reality, the delegation did not occur in 1946 because, at that time, Indonesian territorial waters were still considered international waters. The accurate fact is that the delegation began in 1982 and became formally legal in 2009 (Webinar, 2022).

At the time, Indonesia had not yet prioritized airspace management as the country was still focused on gaining international recognition of its independence (Husna, 2019). On the other hand, Indonesia was deemed unprepared to manage the FIR due to limited technology and underdeveloped human resources. Moreover, the Natuna region was still considered international waters and had not yet been officially recognized as part of Indonesia's territory (Ramadhan, 2021). After a long process culminating in the ratification of UNCLOS 1982, the waters surrounding Natuna and the Riau Islands were officially recognized as part of Indonesian territory. Nevertheless, the International Civil Aviation Organization (ICAO) continued to mandate Singapore to manage the airspace over Natuna (Ramadhan, 2021).

In more recent times, particularly after the 1996 FIR arrangement, the Indonesian government's latest step to reclaim the FIR was the issuance of Presidential Regulation (Perpres) No. 109 of 2022 concerning the Adjustment of FIR Boundaries Between Jakarta and Singapore. President Joko Widodo stated that this regulation reinforces Indonesia's sovereignty and international recognition over its airspace (Indonesia, 2024).

There are five crucial points resulting from the Jakarta–Singapore FIR adjustment. As part of this adjustment, the right to provide air navigation services has been transferred to Indonesia in accordance with territorial sea boundaries as defined by UNCLOS. Under the agreement with Singapore, it was decided that Singapore would control the airspace from the surface up to 37,000 feet, while the airspace above 37,000 feet remains under Indonesia's control (Indonesia, 2024).

E-ISSN : 2614-2244
ISSN : 2088-5288

This adjustment has sparked controversy among academics and practitioners, as it is considered to provide no significant benefit to Indonesia. On the contrary, the continued delegation of control is perceived as a threat to Indonesia's airspace sovereignty (Indrawati, 2022).

The following is a comparison table showing the agreement between the Jakarta and Singapore FIR before and after the 2022 boundary adjustment.

Table 1. Comparison of the Agreement on the FIR Boundary Between Singapore and Jakarta Before and After the 2022 FIR Adjustment

Before the 2022 Jakarta-Singapore FIR Adjustment	**After the 2022 Jakarta-Singapore FIR Adjustment**
Indonesia delegated the responsibility for providing air navigation services in Sector A from the sea surface up to an altitude of 37,000 feet within the adjusted Jakarta FIR and the southern part of Singapore. (Article 2 Paragraph (1) of the 1996 FIR Agreement)	Indonesia delegated the responsibility for providing air navigation services in Sector A from the sea surface up to an altitude of 37,000 feet. (Article 2 Paragraph (1) of the 2022 FIR Agreement)
Indonesia delegated the responsibility for providing air navigation services in Sector B from the sea surface up to an unlimited altitude within the adjusted Jakarta FIR. (Article 2 Paragraph (2) of the 1996 FIR Agreement)	Indonesia delegated the responsibility for providing air navigation services in Sector B from the sea surface up to an altitude of 37,000 feet within the adjusted Jakarta FIR. (Article 2 Paragraph (2) of the 2022 FIR Agreement)
The agreement would be reviewed at the end of five years and could be extended if both parties found it	The agreement is valid for 25 years from the date it comes into effect and will be extended by mutual

E-ISSN : 2614-2244
ISSN : 2088-5288

beneficial. (Article 7 of the 1996 FIR Agreement)	agreement if both Parties find it beneficial. No later than two (2) years before this Agreement expires, the Parties must consult each other and ICAO to make arrangements for the continued safety and efficiency of international civil aviation in the region. (Article 7 Paragraph (1) of the 2022 FIR Agreement)

Based on the comparison above, it can be seen that there is no significant difference between the 1996 FIR Agreement and the 2022 FIR Agreement. The main point evident in both agreements is the continued delegation to Singapore of the Flight Information Region (FIR) over the Riau Islands (Kepri) and Natuna, designated as Sectors A and B. These sectors include Raja Haji Abdullah Airport (Sei Jati) in Karimun, Hang Nadim International Airport in Batam, Raja Haji Fisabillah Airport in Tanjung Pinang, Letung Anambas Airport in the Anambas Islands, and Ranai Natuna Raden Sadjad Airport in Natuna. The only airport not included in the delegation is Dabo Singkep Airport in Lingga. This situation can be further explained through several analytical points.

Although the Jakarta FIR area has increased by 249,575 km², this expansion only applies horizontally in terms of surface area (Juwana, 2022). It is important to note that the concept of FIR encompasses not only horizontal dimensions but also vertical airspace (Brary, 2021). Therefore, in the context of this agreement, Indonesia's legal sovereignty over its airspace in vertical terms remains the same as before the 2022 FIR agreement, meaning there has been no actual change.

The continued delegation of FIR Sectors A and B over the Riau Islands and Natuna to Singapore, as stated in Article 2 Paragraphs (1) and (2) of the 2022 FIR Agreement, which mandates Indonesia to delegate control of FIR from sea level up to 37,000 feet, clearly indicates that Indonesia's legal sovereignty over its airspace remains as it was before the agreement. In fact, such delegation arguably legitimizes the ongoing erosion of Indonesia's airspace sovereignty.

E-ISSN : 2614-2244
ISSN : 2088-5288

Indonesia's sovereignty is further questioned by the duration of the agreement. The 2022 FIR Agreement is valid for 25 years from its enactment and can be extended by mutual consent. This directly contradicts Article 458 of Law No. 1 of 2009 on Aviation, which mandates that Indonesia should, by 2025, fully control its airspace without any form of delegation.

The delegation of airspace control from 0 to 37,000 feet over the FIR regions covering Riau and Natuna has significant consequences. Despite the horizontal increase of 249,575 km² in Indonesian-controlled airspace, the authority over this vertical space remains under Singaporean control.

From an economic perspective, airspace below 37,000 feet is highly strategic. Most commercial flights operate within this altitude range, meaning control over this space can provide substantial economic benefits to the managing country (Hakim, 2022). Commercial aircraft typically fly at 35,000–36,000 feet above sea level. While Indonesia is entitled to collect RANS Charges, the lack of full control over its airspace poses challenges. Any policy on air navigation charges must be jointly discussed and agreed upon with Singapore, ultimately limiting Indonesia's flexibility in optimizing the use of its national airspace.

From a defense and security standpoint, this delegation may also create limitations in military and strategic operations (Sari, 2024). In certain situations, such as air patrols or search and rescue (SAR) missions, Indonesia must first coordinate and obtain permission from Singapore before entering airspace still under Singaporean control. This dependency can hinder swift and effective emergency responses, potentially jeopardizing national interests in safeguarding airspace sovereignty and security.

This situation is concerning, especially considering Indonesia's substantial improvements in aviation quality. This is evidenced by several audits from the International Civil Aviation Organization (ICAO) under the Universal Safety Oversight Audit Programme (USOAP), which assesses legislation, organization, licensing, operations, airworthiness, accident investigation, air navigation services, and aerodromes (Dawini & Hilal, 2023). Despite Singapore's continued control, Indonesia's progress has gained the trust of the international aviation community. In October 2017, an ICAO audit showed that Indonesia had achieved an Effective Implementation (EI) rate of 81.15%, surpassing the global average of 62% (Dawini & Hilal, 2023).

E-ISSN : 2614-2244
ISSN : 2088-5288

In mid-2018, on May 20, Indonesia received the Council President Certificate (CPC) from ICAO, recognizing the government's commitment to improving aviation safety. According to Director General of Civil Aviation Agus Santoso, ICAO acknowledged Indonesia's success in addressing oversight deficiencies and continuously improving the EI score for ICAO's safety standards and recommended practices (Sinaga, 2022). This achievement resulted from synergy between regulators and aviation operators.

In late February 2018, Indonesia's EI score reached 80.34% in ICAO's report, a significant rise from 45.33% in 2014. This propelled Indonesia from 152nd to 58th place among 192 ICAO member states, a leap of 94 positions (Dawini & Hilal, 2022). This reflects Indonesia's success in meeting USOAP audit standards and surpassing targets set by the Global Aviation Safety Plan.

In addition to these achievements, the Indonesian government has developed a blueprint for the takeover of air navigation services in the FIR areas of Riau and Natuna. The government, through the Air Navigation Service Provider of Indonesia (LPPNPI), has allocated IDR 2.2 trillion for the modernization of air navigation equipment (Indonesia K. P., 2025). Thus, any claims that Indonesia lacks the technical readiness or adequate facilities are unfounded.

Sovereignty constitutes the highest authority in establishing law within a state. Its characteristics include unity, originality, perpetuity, and indivisibility (Busroh, 2011). Several theories on sovereignty exist, one of which posits that sovereignty lies in the hands of the state. Hugo de Groot, better known by his Latin name Hugo Grotius, in his work *De Jure Belli ac Pacis*, defines state sovereignty as the supreme power possessed by a state to regulate its internal affairs without external interference. According to Grotius, this sovereignty is absolute in the sense that the state has full authority over its territory and people, including the right to enact laws, administer justice, and defend itself from external threats (Situngkir, 2018).

According to Mochtar Kusumaatmadja, the sovereignty of a state constitutes the highest authority it possesses in regulating its territory. The conception of territory here is not restricted solely to land but also extends to the sea or waters, the airspace above land and sea, as well as the seabed and the subsoil beneath it (Lestari, 2009). This conception parallels Hans Kelsen's three-dimensional theory of sovereignty, namely land, waters, and airspace. Such sovereignty is also known as territorial sovereignty, which implies the

E-ISSN : 2614-2244
ISSN : 2088-5288

exclusive right of a state to regulate its territory. This exclusivity further implies that a state has no jurisdiction beyond its territory, meaning sovereignty can only be exercised fully and exclusively within its own territorial boundaries (Adolf, 1996).

State sovereignty entails complete control over persons, goods, and all actions within its territory (Siregar, 2024). Among these is sovereignty over airspace, particularly in relation to aviation. Sovereignty over airspace determines what activities may or may not be conducted within such territory. Every state enjoys full and undisputed sovereignty over the airspace above its land territory and territorial waters. This means that states have complete authority to regulate, control, and restrict aviation activities within their airspace in accordance with national interests (Martono, 1995). This principle is reinforced in the 1944 Chicago Convention on International Civil Aviation, which affirms that every state possesses full and exclusive sovereignty over the airspace above its territory.

Viewed from the principle of air sovereignty, which affirms a state's exclusive rights over the airspace above its territory, Indonesia's airspace sovereignty post-2022 FIR adjustment can be interpreted as an effort to strengthen control over its airspace. The FIR boundary adjustment affirms Indonesia's sovereignty and sovereign rights in the eyes of the international community. It also serves as a driving force for improved safety and efficiency in aviation services.

In this context, air sovereignty as regulated by Article 1 of the 1944 Chicago Convention forms the basis of analysis on a state's full rights to manage its airspace. The Convention stipulates that FIR management by another state can only occur through delegation, which should ideally be temporary rather than permanent. According to Section 2.1.1 of Annex 11 to the Chicago Convention, delegation is not prohibited under international law. Indeed, Indonesia itself manages another state's FIR, namely, Australia's Christmas Island, through its ATC. However, under Indonesian national law, particularly Article 458 of Law No. 1 of 2009, Indonesia is obligated to independently manage its airspace within a defined period as an expression of full sovereignty (Lubis, 2025).

Before the 2022 FIR adjustment, the delegation of FIR management to Singapore was a compromise due to Indonesia's limited technological and human resource capacity at the time. This delegation reflected a technical dependency that hindered the full exercise of air sovereignty. After the adjustment, through Presidential Regulation No. 109 of 2022,

E-ISSN : 2614-2244
ISSN : 2088-5288

Indonesia gained international recognition for the expansion of the Jakarta FIR as part of its efforts to reinforce air sovereignty. However, the continued delegation of FIR management at altitudes up to 37,000 feet to Singapore shows that full sovereignty over Indonesian airspace has yet to be realized. This situation illustrates the challenge of balancing air sovereignty with ongoing technical needs and international cooperation.

In light of the FIR adjustment between Jakarta and Singapore, the argument that delegation remains in place is questionable, both international and national law discourage further delegation. Annex 11 of the Chicago Convention allows delegation only if a country lacks the capacity to manage its own airspace. Given Indonesia's proven capability, it is now fully qualified to exercise complete control over its airspace. Additionally, Article 458 of Law No. 1 of 2009, which serves as a benchmark of national legal standards, requires Indonesia to evaluate and assume air navigation services previously delegated to other states no later than 15 years after the law's enactment.

Comparison of the FIR Agreements for the Riau Islands and Natuna with Other Agreements

Indonesia and Australia

In accordance with the provisions in point 2.1.1 of Annex 11 of the Chicago Convention, the delegation of airspace management to another country is not fundamentally in conflict with international law. This is reflected in current practice, where Indonesia manages another country's FIR, such as the Christmas Island FIR of Australia, which is managed by Indonesia's Air Traffic Control (ATC) (Lubis, 2025).

The Indonesian FIR under the authority of Jakarta ATC has the right to provide air navigation services for every aircraft flying over Australian airspace around Christmas Island. This airspace management by the Indonesian FIR is carried out without a formal agreement between Indonesia and Australia, which poses its own legal issue as it does not align with the requirements set out in Annex 11 of the Chicago Convention. Nevertheless, Australia has not attempted to reclaim the air navigation management of the Christmas Island airspace, as it does not perceive this arrangement as a threat to its national interest, particularly in defense and security. Australia already operates a defense system known as the Integrated Air Defence System (IADS) located in Tindall, Australia (Indonesia K. P., 2025).

E-ISSN : 2614-2244
ISSN : 2088-5288

Economically, the Australian government considers that the airspace over Christmas Island does not offer significant financial benefits. In fact, having this airspace managed by another country relieves Australia of the need to allocate resources for building and maintaining air navigation infrastructure in the area (Ramadhan, 2021).

Christmas Island holds far less strategic value than the Riau Islands. Air traffic over Christmas Island is relatively low compared to the busy flight routes over the Riau region. Australian aircraft often do not even file a flight plan to Jakarta ATC when flying through this airspace, due to the absence of a bilateral agreement between Australia and Indonesia concerning FIR management over Christmas Island (Ramadhan, 2021). Therefore, the FIR management over Natuna cannot be compared to Indonesia's control of the airspace over Australia's Christmas Island, as the latter lacks the strategic significance or air traffic density of Natuna.

Christmas Island is a small island with a population of around 2,000 people, covering only about 135 km², and a longest dimension of approximately 19 km^2 (WorldData.Info, 2015). Due to these limited characteristics, FIR management in this area has never been controversial. The management of this airspace was a direct initiative by the Australian Government offered to the Indonesian Government (Ramadhan, 2021). Indonesia's administration of the airspace over Christmas Island does not disregard the provisions of Annex 11. Moreover, Indonesia is willing to return the management rights to Australia upon official request (Hakim, 2022).

Comparing the FIR issue in the Riau Islands and Natuna to the FIR over Christmas Island is a misleading understanding. Christmas Island is just a small former British colony that was once managed by Singapore before being handed over or purchased by Australia. The island is located in the southern Indian Ocean, about 970 km south of Jakarta and approximately 2,000 km^2 from mainland Australia (Hakim, 2022).

Christmas Island is a small, sparsely populated territory, even smaller in length than the distance between Harmoni and Blok M in Jakarta. Given these conditions, it is irrelevant to consider it a critical border area. Especially considering air traffic over this region, which is now managed by the Indonesian aviation authority.

Recent air traffic data over Christmas Island shows only four flights per week operated by Virgin Australia Airlines from Perth to the island. Additionally, there is one charter

E-ISSN : 2614-2244
ISSN : 2088-5288

flight operated by a small travel agency in Malaysia, although this flight is often canceled due to a lack of passengers (Hakim, 2022).

Equating Australia's delegation of its sovereign airspace to Indonesia with Indonesia's sovereign airspace over the Malacca Strait managed by Singapore is akin to comparing heaven and earth, two entirely different contexts in terms of strategic interests and significance (Hakim, 2022). Again, it is naïve to think otherwise, as what truly matters is that the airspace management over Christmas Island was voluntarily handed over by the Australian Government to the Government of the Republic of Indonesia.

Indonesia and Timor Leste

Indonesia's FIR is also responsible for managing the airspace over the territory of Timor Leste (Novianto, 2022). This management is divided into two altitude layers: Timor Leste controls airspace up to 24,500 feet, while Indonesian FIR handles airspace above 24,500 feet (Novianto, 2022). Since the time Timor Leste was still part of Indonesia, its air navigation services were managed by Indonesia. After independence, Timor Leste assumed control of the lower airspace (kumparanNEWS, 2025).

This FIR management over Timor Leste's airspace by Indonesia is a consequence of the territory's separation from the Republic of Indonesia in 1999 (Novianto, 2022). Until now, the Government of Timor Leste has not expressed a desire to take over FIR management from Indonesia. However, there is concern on the Indonesian side that should Timor Leste eventually seek control of its own FIR (Ramadhan, 2021), it may result in a new FIR that includes parts of Indonesia's national airspace, such as the airspace over Kupang. Similar to the Christmas Island case, FIR management over Timor Leste's airspace also occurs without formal delegation mechanisms, which clearly contradicts the provisions of Annex 11 of the 1944 Chicago Convention (Ramadhan, 2021). It must be understood that Indonesia manages Timor Leste's airspace in compliance with Annex 11, and would gladly return the management rights to Timor Leste at any time upon request (Hakim, 2022).

Cambodia and Thailand

From this case, we can better formulate strategies and technical steps for taking over FIR management by drawing from Cambodia's precedent. Cambodia took a technical approach to reclaim FIR management from Thailand (Ramadhan, 2021). Cambodia began building its own international air navigation system and submitted a working paper

E-ISSN : 2614-2244
ISSN : 2088-5288

to ICAO in 2002. Despite challenges, Cambodia succeeded in reclaiming control of its sovereign airspace in 2002 based on state sovereignty principles (Hakim, 2022).

Thailand has shown a good example of how to manage another country's airspace—in this case, Cambodia's. In 2001, Cambodia requested to ICAO the return of FIR management from Thailand. Finally, in 2002, Cambodia began managing its own FIR (Hakim, 2022). ICAO's regulations were clear here, so it begs the question why Singapore is reluctant to hand over air navigation services to Indonesia.

After World War II, Cambodia's airspace was closed. It wasn't until 1995 that it reopened for international civil aviation, with Thailand acting as the civil aviation authority (Hakim, 2022). As the world entered the new millennium, Cambodia worked hard to develop infrastructure and human resources to prepare for taking control over its airspace.

In 2001, Cambodia submitted a working paper to ICAO regarding its effort to take over its FIR from Thailand. This was met with strong opposition by the International Air Transport Association (IATA). In 2002, Cambodia successfully reclaimed FIR management from Thailand within its sovereign airspace through bilateral communication between the Cambodian and Thai civil aviation authorities. This was conveyed by Cambodia's Director of Air Navigation during an informal ICAO regional meeting in Bangkok in August 2017 (Hakim, 2022).

Pacta sunt servanda, often referred to as the principle of legal certainty, affirms that every party involved in an agreement must respect the commitments that have been made, which carry the same standing as law. The parties are not permitted to unilaterally amend or intervene in the contents of a contract that has been mutually agreed upon (Kesuma & Mahfud, 2023). This principle originates from Roman law, where agreements were regarded as binding contracts. It also implied that an agreement was considered valid if it was consented to by both parties and reinforced with an oath (Jamil, 2020).

In the realm of international law, the principle of pacta sunt servanda is applied in the context of international treaties. These treaties are agreements made between states within the international community, intended to create specific legal effects. Once an international treaty is ratified, states have no room to disregard the obligations contained therein (Situngkir, 2018). This underscores that every agreement reached by the parties possesses binding legal force and must be observed by all contracting parties.

E-ISSN : 2614-2244
ISSN : 2088-5288

The impact of implementing pacta sunt servanda in international law can be seen in compliance with international treaties and the provision of legal protection (Situngkir, 2018). First, compliance with international treaties means that states bound by such treaties are obligated to implement their provisions in good faith. This is enshrined in Article 26 of the 1969 Vienna Convention on the Law of Treaties, which affirms that every valid treaty must be performed in accordance with its terms and purpose. Second, legal protection implies that the principle provides safeguards for parties to an international treaty. If one party fails to fulfill its obligations, the aggrieved party is entitled to seek remedies or demand performance through agreed dispute settlement mechanisms, such as arbitration or international courts (Purwanto, 2009).

Based on the discussion above, if we relate it to the principle of pacta sunt servanda, which emphasizes that international agreements must be honored and implemented in good faith by the parties involved, it is relevant in comparing FIR agreements between Singapore and other countries such as Indonesia, Australia, and Cambodia.

In the context of Jakarta-Singapore FIR boundary adjustment, despite the tension with Indonesia's national law, specifically Article 458 of Law No. 1 of 2009, the agreement must still be respected because it has been ratified by both countries. This aligns with pacta sunt servanda, where a valid international agreement carries binding legal force. This agreement remains a legal basis even though some view that Indonesia's sovereignty over FIR management is not yet fully optimized.

Indonesia also manages the airspace over Christmas Island without a formal agreement. Although this is inconsistent with Annex 11 of the Chicago Convention, Australia accepts the arrangement since it does not affect its security or economic interests. In this case, pacta sunt servanda is not fully applicable due to the absence of a bilateral agreement, but should such an agreement be made in the future, the principle would ensure that both parties' obligations are honored.

Cambodia demonstrates an application of pacta sunt servanda by requesting FIR management back from Thailand through bilateral engagement and submission of working papers to ICAO. This success affirms that valid, mutually agreed treaties are respected, allowing Cambodia to manage its own airspace in accordance with sovereignty principles.

E-ISSN : 2614-2244
ISSN : 2088-5288

The implementation of pacta sunt servanda in FIR agreements highlights the challenges and dynamics in applying international law, especially when it clashes with national law or sovereignty interests. In Indonesia's case, the delegation of FIR to Singapore remains valid under international agreement, even though it contradicts the national mandate for full airspace management by 2025. This demonstrates how the principle ensures legal certainty at the international level, even when it conflicts with domestic policies.

CONCLUSION

The legal sovereignty of Indonesia's airspace following the 2022 FIR boundary adjustment between Jakarta and Singapore expanded the Jakarta FIR area, but did not fundamentally alter Indonesia's legal sovereignty status over its national airspace. The delegation of air navigation services in sectors A and B up to a vertical limit of 37,000 feet remains in effect, meaning that full control over the strategic airspace above the Riau Islands and Natuna has not yet been completely reclaimed by Indonesia, despite the horizontal expansion covering an area of 249,575 km². This dependency poses a challenge to strengthening national sovereignty, particularly as the 2025 target for full control of national airspace approaches, as mandated by Law Number 1 of 2009 on Aviation. According to Annex 11 of the Chicago Convention, delegation may only occur when a state is not yet capable of managing its own airspace; however, Indonesia currently possesses the capacity to do so.

Comparisons between the FIR agreements for the Riau Islands and Natuna and those concerning the airspace of Timor-Leste and Christmas Island are not relevant, as the FIR over the Riau Islands and Natuna holds a far greater strategic value. Compared to other countries such as Cambodia and Thailand, Indonesia still lags in its diplomatic efforts to reclaim FIR control. Cambodia succeeded in regaining FIR management from Thailand through intensive diplomacy and the strengthening of its technical capacity, while Thailand retained its FIR through a bilateral cooperation strategy. Indonesia must draw lessons from both countries to enhance its bargaining position in FIR management.

REFERENCES

Adolf, H. (1996). Aspek-aspek Negara dalam Hukum Internasional. Jakarta: PT Raja Grafindo Persada.

E-ISSN : 2614-2244
ISSN : 2088-5288

Bosselmann, K. (2020). Environmental trusteeship and state sovereignty: Can they be reconciled?. *Transnational Legal Theory,* 11(1), 1-18. https://doi.org/10.1080/20414005.2020.1757862.

Busroh, A. D. (2011). Ilmu Negara. Jakarta: Bumi Aksara.

Chicago Convention of 1944 on International Civil Aviation.

Dawini, S. J., & Hilal, R. F. (2023). Peran Unit Air Traffic Flow Management dalam menunjang keselamatan penerbangan pada Perum LPPNPI di Airnav Sentani Jayapura. *Jurnal Akuntansi Manajemen Pariwisata dan Pembelajaran Konseling,* 1(2), 192-200. https://doi.org/10.57235/jamparing.v1i2.1033.

Efthymiou, M., & Papatheodorou, A. (2019). EU emissions trading scheme in aviation: Policy analysis and suggestions. *Journal of Cleaner Production,* 237(1), 1-10. https://doi.org/10.1016/j.jclepro.2019.117734.

Hakim, C. (2019). FIR di Kepulauan Riau Wilayah Udara Kedaulatan NKRI. Jakarta: Buku Kompas.

Husna, L., & Riyanto, A. (2019). Implikasi perjanjian Flight Information Region (FIR) Singapura atas ruang udara Indonesia terhadap Kepulauan Riau. *Jurnal Cahaya Keadilan,* 7(2), 35-48. https://doi.org/10.33884/jck.v7i2.1418.

Huttunen, M. T. (2021). The right of the overflown state to divert or intercept civil aircraft under a bomb threat: An analysis with regard to Ryanair Flight 4978. *Journal of Transportation Security,* 14(1), 291-306. https://doi.org/10.1007/s12198-021-00235-5.

Indrawati, N. (2022). Peluang dan tantangan penandatanganan perjanjian penyesuaian Flight Information Region (FIR) antara Indonesia dengan Singapura. *Jurnal Paradigma Hukum Pembangunan,* 7(2), 18-36. https://doi.org/10.25170/paradigma.v7i2.3541.

Interview with Mr. Mhd Hykna Kurniawan Lubis, Head of Legal Affairs, Roesmin Nurjadin Air Force Base, Wednesday, 19 March 2025, at Roesmin Nurjadin Air Force Base, Pekanbaru City.

Jamil, N. K. (2020). Implikasi asas pacta sunt servanda pada keadaan memaksa (force majeure) dalam hukum perjanjian internasional. *Jurnal Kertha Senaya,* 8(7), 1044-1054. https://ojs.unud.ac.id/index.php/kerthasemaya/article/view/59799.

E-ISSN : 2614-2244
ISSN : 2088-5288

Kazemi, H. (2022). Aviation safety international standards in the framework of national air law. *International Journal of Reliability, Risk & Safety Theory and Application,* 5(1), 59-67. https://doi.org/10.30699/IJRRS.5.1.8.

Kesuma, A. P., & Mahfud, M. A. (2023). The implementation of pacta sunt servanda principle as a basis for making memorandum of understanding. *Awang Long Law Review,* 5(2), 432-440. https://doi.org/10.56301/awl.v5i2.724.

Kusumaatmadja, M. (2003). Pengantar Hukum Internasional. Jakarta: Alumni.

Law of the Republic of Indonesia No. 1 of 2009 on Aviation.

Leib, K. (2015). State sovereignty in space: Current models and possible futures. *The International Journal of Space Politics & Policy,* 13(1), 1-23. https://doi.org/10.1080/14777622.2015.1015112.

Lestari, M. M. (2009). Hukum Laut Internasional. Pekanbaru: Pusat Pengembangan Pendidikan Universitas Riau.

Martono, & Sudiro, A. (2012). Hukum Udara Nasional dan Internasional Publik. Jakarta: Rajawali Pers.

Martono. (1995). Hukum Angkutan Udara dan Hukum Angkasa, Hukum Laut Internasional. Bandung: Mandar Maju.

Mauna, B. (2001). Hukum Internasional: Pengertian, Peranan, dan Fungsi dalam Era Dinamika Global. Bandung: PT Alumni.

Mauna, B. (2013). Hukum Internasional. Bandung: PT Alumni.

Merdekawati, A., et al. (2025). Hukum Internasional Edisi Ekspansi. Sleman: Buku Belaka & Komojoyo Press.

National Seminar with Hikmahanto Juwana, Professor of International Law at Universitas Indonesia, Tuesday, 8 February 2022, National Seminar on the Legal Dilemma of the Indonesia-Singapore FIR Agreement.

National Webinar with Chappy Hakim, Chairman of the Indonesia Air Power Study Center, Thursday, 10 September 2022, PSAPI–ICASL UNPAD Webinar Series.

National Webinar with Mr. Atip Latipulhayat, Professor of International Law, Faculty of Law, Universitas Padjadjaran, Thursday, 10 September 2022, PSAPI–ICASL UNPAD Webinar Series.

E-ISSN : 2614-2244
ISSN : 2088-5288

National Webinar with Mr. Indra Sipayung, Alternate Permanent Representative of the Republic of Indonesia to ICAO, Ministry of Foreign Affairs Staff, Sunday, 6 February 2022, Forum Diskusi Salemba 75.

Novianto, A. T. (2022). Strategi pengambilalihan Flight Information Region Kepulauan Natuna. *Journal of Social Research,* 1(9), 939-948. https://doi.org/10.55324/josr.v1i9.212.

Official Copy of Presidential Regulation No. 109 of 2022 on the Agreement between the Government of the Republic of Indonesia and the Government of the Republic of Singapore concerning the Realignment of the Boundary between the Jakarta Flight Information Region and the Singapore Flight Information Region.

Pauline, K. (2022). Kepentingan Singapura terhadap Flight Information Region (FIR) Kepulauan Riau dan Natuna. Skripsi, Program Sarjana Universitas Sriwijaya.

Pavel, C. E. (2022). The European Union and diminished state sovereignty. *Critical Review of International Social and Political Philosophy,* 25(4), 596-603. https://doi.org/10.1080/13698230.2022.2042956.

Pratama, G. G., & Nanda, M. R. P. (2023). Civilian aircraft transponder manipulation in reconnaissance missions, aerial incidents cases and Chicago Convention 1944. *Jurnal Bina Mulia Hukum,* 7(2), 288-297. https://orcid.org/0000-0002-1888-4655.

Purwanto, H. (2009). Keberadaan asas pacta sunt servanda dalam perjanjian internasional. *Jurnal Mimbar Hukum,* 21(1), 155-170. https://doi.org/10.22146/jmh.16252.

Ramadhan, R. A. (2021). Nantikan Indonesia di Udara Natuna. Bogor: Guepedia.

Sari, H. (2024). Pengambilalihan Flight Information Region (FIR) Singapura atas Kepulauan Riau dan Natuna dalam perspektif teori kedaulatan. *Journal of Social Science Research,* 4(1), 1-14. https://doi.org/10.31004/innovative.v4i1.8973.

Sinaga, N. A. (2022). Aspek hukum keselamatan penerbangan di Indonesia. *Jurnal Hukum Sasana,* 8(2), 453-462. https://doi.org/10.31599/sasana.v8i2.1295.

Siregar, N. O., et al. (2024). Hukum Internasional. Purbalingga: Eureka Media Aksara.

E-ISSN : 2614-2244
ISSN : 2088-5288

Situngkir, D. A. (2018). Asas pacta sunt servanda dalam penegakan hukum pidana internasional. *Jurnal Cendikia Hukum,* 3(2), 153-165. https://doi.org/10.33760/jch.v3i2.29.

Situngkir, D. A. (2018). Eksistensi kedaulatan negara dalam penerapan yurisdiksi Mahkamah Pidana Internasional. *Jurnal Ilmu Hukum,* 4(2), 659-672. https://doi.org/10.46839/lljih.v4i2.105.

Stilwell, R. E., et al. (2020). Overcoming sovereignty for space traffic management. *Journal of Space Safety Engineering,* 7(2), 158-161. https://doi.org/10.1016/j.jsse.2020.04.002.

Supriyadi, A. A., et al. (2020). Strategy for the alignment of Singapore Flight Information Region over Indonesian airspace. *The Open Transportation Journal,* 14(1), 204-213. http://dx.doi.org/10.2174/1874447802014010204.

Sutrisno, N., & Romdoni, R. N. M. (2022). Ratifikasi perjanjian penyesuaian wilayah informasi penerbangan antara Indonesia dan Singapura: Pilihan rasional atau status quo. *Jurnal Hukum,* 5(2), 393-417. https://doi.org/10.22437/ujh.5.2.393-417.

Wahyudin, D., et al. (2022). Indonesian diplomacy against Singapore in acquisition of Flight Information Region (FIR). *Journal of Legal, Ethical and Regulatory Issues,* 25(1),1-10. https://sdbindex.com/documents/00000160/00001-43052.

Walewangko, M. (2021). Budaya keselamatan penerbangan berdasarkan Undang-Undang Nomor 1 Tahun 2009 tentang Penerbangan. *Lex Administratum,* 9(3), 122-132. https://ejournal.unsrat.ac.id/v3/index.php/administratum/issue/view/2859.

Wijaya, D. D., & Mubin, N. (2024). Teori kedaulatan negara. *Jurnal Ilmu Sosial dan Humaniora,* 2(4), 114-121. https://doi.org/10.62383/wissen.v2i4.332.

Ziolkowska, K. (2021). Distributing authority-State sovereignty in the age of blockchain. *International Review of Law, Computers & Technology,* 35(2), 1-15. http://dx.doi.org/10.1080/13600869.2021.1885108.