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The Signing of Indonesia-Singapore Fir Realignment Agreement 2022: Prospect For New Indonesian Air Defense Identification Zone?

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Abstract: *Indonesia's location makes it vulnerable to border disputes and security threats. Indonesia needs to establish a universal Indonesian national defense system to defend its sovereignty and territorial integrity. One of them is in air defense. In order to identify foreign aircraft entering Indonesian airspace early and to provide security for the Indonesian Archipelagic Sea Lanes (ALKI), the establishment of ADIZ in the country's EEZ is a crucial and required subject. This has the potential to become a long-term prospect that can be maximized to meet Indonesia's air security needs. Even though establishing a new Indonesian ADIZ must still be halted because of the delegation of Natuna FIR under the Indonesia-Singapore FIR agreement 2022, the signing of this treaty has produced a new pattern in Indonesia's air defense strategy. Indonesia's air defense, which is still far from ideal, can actually develop after the signing of the FIR agreement. However, this also requires an evaluation of the long-term plan for air defense in Indonesia so that it can produce national sovereignty.*

Keyword: *Air Defense, ADIZ, Flight Information Region, Sovereignty.*

Abstrak: Lokasi Indonesia menjadikan rentan akan sengketa perbatasan dan ancaman keamanan. Indonesia perlu membangun sistem pertahanan nasional Indonesia yang bersifat semesta untuk mempertahankan kedaulatan dan keutuhan wilayahnya. Salah satunya adalah di bidang pertahanan udara. Untuk mengidentifikasi pesawat asing yang memasuki wilayah udara Indonesia secara dini dan untuk memberikan keamanan bagi Alur Laut Kepulauan Indonesia (ALKI), pembentukan ADIZ di ZEE Indonesia merupakan hal yang krusial dan diperlukan. Hal ini berpotensi menjadi prospek jangka panjang yang dapat dimaksimalkan untuk memenuhi kebutuhan keamanan udara Indonesia. Meskipun pembentukan ADIZ Indonesia yang baru masih harus terhenti karena pelimpahan FIR Natuna di bawah perjanjian FIR Indonesia-Singapura 2022, penandatanganan perjanjian ini telah menghasilkan pola baru dalam strategi pertahanan udara Indonesia. Pertahanan udara Indonesia yang masih jauh dari kata ideal sebenarnya dapat berkembang setelah penandatanganan perjanjian FIR. Namun, hal ini juga membutuhkan evaluasi terhadap rencana jangka panjang pertahanan udara di Indonesia sehingga dapat menghasilkan kedaulatan nasional.

Kata Kunci: Pertahanan Udara, ADIZ, Flight Information Region, Kedaulatan.

INTRODUCTION

Indonesia is one of the largest archipelagic states in the world. Additionally, Indonesia's location on the globe is also strategically advantageous. This is evident from Indonesia's geographical position, located between two oceans and two continents, with its waters serving as one of the main thoroughfares for global commerce. Due to its geographical location, twelve regional nations have land and maritime borders with Indonesia. This situation makes Indonesia vulnerable to border disputes and security threats that cause domestic instability in the region. Geographical conditions of a state determine events that have a global influence. In the future, Indonesia's existence will be influenced by its geographical conditions and location. So proper management of natural resources, border areas and defence is needed. It is necessary first to understand the defense of the Indonesian state, which encourages the need to establish a universal Indonesian national defense system that involves both community and territoriality aspects according to the values of Pancasila and the 1945 Constitution of the Republic of Indonesia (Azikin et. al, 2020).

As the mandate is stipulated in the preamble of the 1945 Constitution, national defense is needed to uphold state sovereignty, defend territorial integrity, the safety of the entire nation, and all of Indonesia's bloodshed from military threats and armed threats. As an archipelagic state, Indonesia has a very wide maritime jurisdiction. In the current global context, threats to state sovereignty have developed in line with technological developments. Defense technology is always considered to represent the present because it is always driven by the capability of deterrence to answer demands and respond to ever-changing threats. Therefore, developing defense industry is crucial in order to produce products in the form of defence equipment and ensure the availability of goods for the benefit of a state's defence (Yulivan, 2022).

The preparation of a management plan and defense strategy within the framework of increasing the capacity of national defense is basically the responsibility of all components of the nation and requires a strong civil society role in making this happen. In the future, along with the development of democratic life, it is crucial to increase the capacity of civil society to be able to carry out an active role as a component part of the nation which also bears the responsibility for improving the overall defense capability. The basic problems in increasing the professionalism of Indonesian National Army or TNI (which Tentara Nasional Indonesia) members in the future are inadequate educational facilities, limited training fields and facilities, relatively out of date instructional and auxiliary instructional tools, as well as limited educational and training equipment. In addition, the problem of soldier welfare and the unprepared potential for defense support, such as trained civilians in sufficient numbers, is a problem that is still being faced in increasing defense capability over the years.

National defense, which is universal for the Indonesian nation, is a model developed as an option. Judging from the type of threat to national defense, it can be classified into military threats and non-military threats. Facing military threats, placing the TNI as the Main Component is strengthened by Reserve Components and Supporting Components (Azikin et al., 2020). Facing non-military threats identifies Ministries/Agencies outside the field of defense as the main element, assisted by other elements of national strength. Historical facts show that the defense of a nation requires the participation of all levels of society. With the participation of the Indonesian people, who worked hand in hand to support the TKR (People's Security Army, the forerunner of the TNI) in national defense during the Dutch and Japanese colonial times, this proved to have played an important role in the struggle of the Indonesian nation, in its efforts to seize and maintain Indonesian independence. People's participation in fighting various threats, both from abroad and from within the country, is a reflection of the

attitude and behaviour of defending the country, which does not only use armed force but also unarmed, for example, by taking a diplomacy and negotiations approach.

The understanding of the existence of a national defense system then makes an expansion of the concept of air defense for certain countries. According to Chappy Hakim, airspace is closely related to state's security and defense (Sutrisno and Romdoni, 2022). For instance, the United States was once careless in protecting its airspace, resulting in the Pearl Harbor and 9/11 incidents occurring. On the other hand, the United Kingdom was the only state that was attacked by Germany during the Second World War but was able to prevail because of its air supremacy and strong air defences.

Implementation of air defense could not be separated from civil aviation, which must refer to international and national legal norms applicable to ensure the safety of passengers, aircraft crew, aircraft air and goods transported. Article 1 of the 1919 Paris Convention gives a country complete and exclusive sovereignty over its territory and territorial waters (Latchford, 1959). The way the power of each state over its airspace derived from an adagio in Roman Law, which reads, "Cuius est solom, eius usque ad coelum et ad inferos", underlies the formation of the 1919 Paris Convention. That adagium means: "Whoever owns a piece of land thus also owns everything that is above the ground up to the sky and everything that is in the land". Land, waterways (sea), and airspace make up the three dimensions that make up the state's area. However, several nations such as Laos, Cambodia, Nepal, Kazakhstan, Switzerland, Austria, Iraq, Congo, Nigeria, and others are classified as landlocked states under international law because they lack territorial waters (seas) or are considered to be two-dimensional nations. While this is happening, countries like Indonesia, Singapore, Malaysia, the Philippines, India, Pakistan, England, the Netherlands, the United States, Canada, Argentina, China, Korea, Japan, and others have a full three dimensions. Regardless of a country's geographic location, airspace is a required component of its territory (Stewart, 2021).

The airspace sovereignty principle is also embodied in the Convention on International Civil Aviation (Chicago Convention 1944), which replaced the 1919 Paris Convention. The convention, as the charter for international civil aviation, serves as a guide when member nations enact national legislation to carry out the principles of international civil aviation. The convention has also established a specialized organization called the International Civil Aviation Organization (ICAO), which has its headquarters in Montreal, Canada. The primary responsibility of the ICAO Council, which is a component of the ICAO organizational structure, is to collect, assess, and set international standards and recommended practices (SARPs) as annexes to the Chicago Convention 1944. Additionally, if judged essential, other clauses may be amended. A state's policies for safety and security for flights must be founded on the paradigms adopted by ICAO and described in its 19 annexes and other related documents. In accordance with research and technological advancements in aviation, ICAO constantly creates and modifies the standards included in the Annex Articles as well as the recommendations in the document and circular ICAO (Linatussara, 2019).

In the past, it appeared as though ICAO didn't give any consideration about whether a state adhered to and put the norm into practice or not. ICAO has previously served as an international body that sets passive standards. Its sole function is to make international civil aviation standards. The ICAO now performs three responsibilities as a result of a change in its role. The second job of ICAO is to monitor compliance, which involves keeping track of the implementation of standards that have been set for later. The third responsibility is to recommend that the state quickly implement measures that have not been followed or defied. ICAO today serves as an international regulatory organisation that is proactive (Adam, 2011).

Indonesia has become a member of the ICAO since April 27th, 1950 and enacted the newest regulation of Law Number 1 of 2009 regarding Aviation, which was drawn up with refers to the Chicago Convention 1944 and pays attention to the growing needs of air transportation in Indonesia. Law Number 1 of 2009 certainly regulates sovereignty over

Indonesian airspace, violation of territorial sovereignty, aircraft production, registration, aircraft nationality and various other related matters (Sena et al., 2021). As an ICAO member, Indonesia has actively participated in all of the organization's events and has carried out its directives in accordance with its annexes. The ICAO's intention and goal is to promote the development of international air transport planning and international air navigation concepts and procedures. As part of the international community, Indonesian airspace must accommodate the interests of the international community with the rules that have been agreed upon in international law. Indonesian law regarding the current airspace has not been able to work optimally in securing; this is due to the structuring perspective and management of Indonesian airspace, which has so far been based on civil aircraft flight safety, is in perspective defense and maintenance of airspace sovereignty has not yet got the main position so that the emphasis is on offenders Indonesian airspace still cannot be handled optimally.

CHALLENGES OF THE ESTABLISHMENT OF THE NEW INDONESIAN AIR DEFENSE IDENTIFICATION ZONE

Air defense has several levels and classifications based on the needs of the states. *First, Counteractive Active Defence*, when an enemy's air assets provide a direct and immediate danger, air tasks are carried out. An oncoming attack must be recognized, the threat's nature must be comprehended, a suitable countermeasure must be devised, and the necessary action must be taken. This is the conventional understanding of air defence: long-range sensors identify an approaching missile or bomber raid, and controllers direct fighter planes to intercept or assign Surface-to-Air Missile batteries to engage. *Second, Passive Defensive Counter-Air (P-DCA)*. It is doubtful that active air defence measures will always be successful (unless overwhelming air superiority has already been achieved). Therefore, some strikes by enemy air assets will succeed. To reduce the potential impact of these adversary incursions, passive defensive counter-air techniques are employed. Key facilities are fortified secured, and can be redundantly duplicated or backed up in different ways. With the help of a strong civil defence organization that offers services for firefighting, medical care, rescue, and recovery, camouflage, concealment, and deception may be employed to prevent direct strikes on likely targets. *Third, Offensive Counter-Air (OCA)* is eliminating or degrading the adversary's ability to launch airstrikes through immediate action. Over enemy territory or at hostile operating bases, offensive air strikes are launched against enemy air assets. The grounds themselves, as well as auxiliary buildings for fuel, repairs, and replacement parts, or even the aviation sector, may be targeted. OCA operations are pre-emptive and entail the employment of offensive, striking weapons, whereas DCA elements are largely reactive and may involve the use of defensive weapons (Meyer, 1998).

Integration suggests that in order to attain the necessary capabilities, the components of the entire air defence system must work in unison. The components of the air defence system must be combined to work properly, just as each "branch's" elements must be connected with those of the other branches. Both the offensive and defensive branches are thought to rely heavily on these supports. Support would consist of supplies, spare parts, maintenance, and staff training. These are all necessary to maintain air defence capacity and ought to be a component of an integrated air defence system (Hawley, 2017).

Based on the explanation above, the concept of air defense can relate to the theory of state sovereignty based on a legal perspective. If it is said that a state is sovereign, it means that the state has supreme power even though this supreme power has limits. Room exercise of this supreme power is limited by the borders of the state, meaning that a state only has ultimate power within a limited territory. Thus, the notion of sovereignty as the supreme power contains two important restrictions in itself. Firstly, power is limited to regional boundaries country that has that power. Secondly, power ends when power in another state begins.

Montevideo Convention 1933 states that the requirement of a state is the existence of a permanent resident (a permanent population), a certain area (a defined territory), the presence of a government (a government), and the existence of relationship ability with other states (a capacity to enter into relations with other states). In the context of international relations, state sovereignty has power over a territory (territorial) and rights, which then arises from the use of territorial control. Sovereignty implies that the state has full authority to exercise its territorial rights in the boundaries concerned. The principle of freedom within the United Nations Charter is one of the most important and respected bases, especially in terms of equality of rights between countries in the world, and this is one of the principles or doctrines of the so-called "jus cogens" or "peremptory norms" (Nieto-Navia, 2003). A sovereign state has several exclusive rights and power (Sassen, 1996), namely:

1. Power to control domestic issues;
2. The power to receive and expel foreigners;
3. Privileges to unlock diplomatic representative in the country other; and
4. Full jurisdiction over the crimes that carried out within its territory.

It can be interpreted that in a sovereign state, there is an area of authority/jurisdiction attached and inseparable from sovereignty itself. In comparison, jurisdiction is the state's power to implement the provisions of national law in a sovereign state. It is part of the implementation of sovereignty within state jurisdiction on the boundaries of its territory attached to every sovereign state. From time to time, it can be noted about a very dynamic debate and provocative about the concept of deep state sovereignty international law. Apparently, a re-interpretation of the meaning of state sovereignty is needed in the context of the current global legal system, especially when it comes to the phenomena of the failure of the national authorities to provide protection for its citizens and its increasing prevalence of globalization and increased international cooperation intensively in various regions of the world. Next, the most impressive philosophical teaching about sovereignty is that sovereignty is absolute power over a certain part. Complete control over the territory became the basis for the formation of the state. Understanding of the concept of sovereignty This country is very helpful in observing and evaluating the position of the country in the context of international relations (MacCormick, 1993). In contrast to academic discourse, it seems no single definition can be established about sovereignty. Sovereign terminology has various meanings and interpretations. Term sovereignty is often given different meanings by academics, journalists, politicians, international officials, jurists, and other circles with professional, cultural, and disciplinary backgrounds and various intellectuals (Eleftheriadis, 2010).

Based on the analysis of the theory above, the conception of air defense in realizing security and sovereignty influences the air defense strategy used in the states. In essence, the creation of an ADIZ is a unilateral proclamation made by a state to safeguard its sovereignty and territorial integrity. The Chicago Convention 1944 makes no mention of ADIZ specifically. The contracting states acknowledge that each State has complete and exclusive sovereignty over the airspace above its territory, according to a broad interpretation of Article 1 of the convention (Su, 2019). In terms of its history, the United States was the first country to create an ADIZ, specifically through the creation of airspace above the Atlantic and Pacific Oceans in 1940. Following the Japanese attacks on Pearl Harbour, the United States took this measure. But with the Axis's military might in 1943, North America was no longer in danger. Other nations, including Canada, Guam, South Korea, Japan, Russia, Taiwan, and Vietnam, established ADIZ after the United States.

Even China had extended its air defense zone till it crossed over with South Korea's on November 23rd, 2013. All aircraft traveling over the East China Sea are now forced to request China's permission after the Chinese government recently declared their air defence zone. China's conduct drew retaliation from its neighbors, most notably from Japan. All aircraft traveling through the area are now required, in accordance with this new law, to report their

flight plans and their points of origin and to keep two-way radio communications open so that they may answer appropriately to China's inquiries. Furthermore, Shinzo Abe, the former Prime Minister of Japan, has expressed his opinions in response to China's unilateral conduct over the ADIZ. Abe claims that China's action is risky and might lead to a surprise development. In front of the Japanese parliament, Abe voiced his worries. Allies of Japan, including the United States, also had strong reactions. John Kerry, the Secretary of State for the United States at that time, declared that if additional military battles over the Senkaku Islands occurred, he would stand with Abe. The United States has made it plain where it stands on the issue, accounting for potential armed conflict.

In Indonesia, the air defense strategy involves a lot of justification and comparison of defense means, which are required to be evenly distributed and aligned. Indonesia has formed its ADIZ that covers a portion of the Island of Sumatra, the Islands of Java and Bali, as well as a bit of the Island of Lombok. Nonetheless, it is from this situation that the application of ADIZ in Indonesia can be said to be a system that is not yet ideal. This is because there is still an uneven distribution of the defense budget, which is carried out based on the theory of state sovereignty. An evaluation is needed to avoid possible challenges that could harm Indonesia's security and defense. When viewed based on the idea of national sovereignty, Indonesia can create strategies based on its national needs and interests.

Indonesia has designed this defense strategy, but this ideal is still a major challenge. One of them is to create stability in the air security strategy by developing the national defense budget (Linatussura, 2019). In 2021, the funding for the defense function was allocated IDR 137.19 trillion, an increase of 16.27% compared to the previous year, 2020, while the allocation for the Ministry of Defense for 2021 was IDR 137.29 trillion or an increase of 16.44% of the prior year. Then, based on KEM PPKF 2022, the Ministry of Defense's Indicative Ceiling for 2022 is IDR 125.84 trillion. The budget is used to support the achievement of priority targets for the development of the defense sector through the implementation of programs such as the TNI Task Implementation Program, Defense Weapons System Modernization Program, Defense Facilities and Infrastructure, Defense Resources Development Program, Soldier Professionalism and Welfare Program, Program Defense Policy and Regulation, Defense Research, Industry, and Higher Education Programs, and Management Support Programs. In addition, the development of the air defense industry in Indonesia is one of the government's focuses on strengthening defense and security, which is expected to fulfill the need for defense equipment in achieving the Minimum Essential Force (MEF) in 2024, as well as attaining independence in the procurement of defense equipment in 2029 as stated in the industrial master plan defense. The defense industry, as contained in the 2020–2024 RPJMN, is considered not optimal. The achievements, as included in the MEF, that the contribution of the defense industry in the fourth quarter of 2018 was only 35.9% of the target set at 49% (Yulivan, 2022).

One aspect of air space management related to national air defense is to establish an identification zone that requires civil and military aircraft to report the flight plan, which is called the ADIZ. ADIZ is an area in the airspace above the ground or sea that generally stretches from the territorial area of the state concerned to reach the airspace over the high seas bordering that state. Within this zone, identification, location, and control of all aircraft are required for national security purposes. The main objective of setting up an ADIZ is to identify all aircraft approaching for security purposes so that prior to entry into national airspace, they can meet the required requirements (Delaney, 1990; Hsu, 2014).

When examined more deeply, the function of forming ADIZ regulations is used to improve territorial security in airspace to strengthen certain regions. The term "Air Defence Identification Zone" (ADIZ) refers to a defined area of airspace within which all aircraft must adhere to the necessary identification and auxiliary procedures for air traffic. Each nation will make every effort to defend itself against diverse threats, as well as to supervise the security

situation in the air region. This is the rationale behind why many nations, including the United States, have established air defense guidance zones, or ADIZ. Depending on the state's interest in identifying potential airborne risks, the ADIZ region can be adjusted to cover a vast area of free air territory. States sometimes designate specific regions of their airspace as risky, restricted, or prohibited for all aircraft as part of the application of state sovereignty in air space. Typically, this area has flight restrictions over certain other locations and is used for military training or important national infrastructure (Purawanto and Yustitiantingtyas, 2019). An ADIZ is a zone used in air defense systems for identification purposes, and it typically extends from the territorial areas of the country in question to the airspace over the nearby free sea. Any aircraft flying into the United States or Canada within 200 miles must identify itself. However, the creation of such an ADIZ is not meant to extend the sovereignty of the country that owns it to the free sea covered by the ADIZ. This is carried out to protect the nation from threats that enter the airspace. All passing aircraft, whether civilian or military, must report to the military flight supervisor in an ADIZ. Because it is intended to support air defense on the nation's territory, the reporting system differs from the civil air traffic control system. Of course, this system is backed by a radar system that is linked to the air defense weapon system. The effectiveness of the ADIZ is determined by this air defense weapon system (Bakhtiar et al., 2016).

In Indonesia, Government Regulation Number 4 of 2018 concerning Air Security and Territory of the Republic of Indonesia, in Article 6 Paragraph (2), states that in addition to stipulating prohibited airspace and airspace limitations, the government can also establish an air defense identification zone air or better known as ADIZ. ADIZ is an identification zone designated to find out detailed flight plan information from airplane foreigners who will cross the airspace of a country through detection air defense radar; this zone is aimed at interests in airspace defense and security and generally extends from mainland airspace to airspace over sovereign seas and can be expanded in accordance with the airspace utilization agreement with neighboring countries (Linatussara, 2019). The determination of a state's ADIZ is not meant to extend the sovereignty of the country that owns the ADIZ to the open sea it covers. ADIZ was created with security in mind, primarily for the purpose of identifying aircraft that are anticipated to fly over the airspace of the ADIZ founding nation. International practice, which has evolved into international law through custom, serves as the foundation for determining ADIZ (Papp, 2015).

The Indonesian ADIZ that has currently been established is not ideal because it is still above Java and the adjacent territories, which is still insufficient in light of Indonesia's enormous size. Because it is not routinely practiced by other nations that already have ADIZ and has been acknowledged by the international community as a customary norm, the implementation of ADIZ Indonesia is still seen as inappropriate. In this way, it can be said that ADIZ in Indonesia cannot be established based on certain territorial reasons. One reason is the constraints that occur in the defense industry in Indonesia. In this context, TNI is the main component of defense and must have a model logistics supply chain management that enables procurement, maintenance, and optimal distribution without compromising readiness. Military readiness strength and global visibility are incorporated into military supply chain management, which uses commercial business practices (Nugroho et al., 2023). Several obstacles must be overcome before the defense industry in an archipelagic nation can be optimized. First, aspects of government regulation have not fully developed because the economy is still in the land-based segment. Because there has been little progress in terms of technology for extracting value, it is quite reasonable that estimates of the potential for Indonesia's natural wealth are still in the form of an assessment. There are some legal gray areas where air, sea, and land affairs are not treated as one unit. Lack of structure in parts of the institution responsible for the seemingly dysfunctional coordination and oversight independence. The defense industry is lagging due to the difficulty of building a strong nation-

state sovereign. In order to optimize the state, it is necessary to improve the generating system policy; it involves a multi-step process that includes preparation, execution, and evaluation. Funding for these policies comes from the government.

From the context above, Indonesia is an archipelagic country, and the issue of sovereignty and security of distant countries is more nuanced there. It is not enough to defend, fight for, and foster national strength and prestige within its boundaries. Because of its current and future dependence on international waters for trade, Indonesia needs to expand its economic scope to cover distances of up to 200 nautical miles from its territorial boundaries. Related to the support of the Defense Industry yet running optimally, even though some defense equipment needs, the TNI has been able to be met by the defense industry. However, several types of strategic defense equipment, such as fighter aircraft, destroyers, rockets, missiles, UCAVs, and radars, are still not able to be supported by the defense industry. The problems encountered include limitations in the mastery of key technologies and capabilities of system integration. These two things are prerequisites for the defense industry to increase its contribution to the fulfillment of the TNI's defense equipment while at the same time having competitiveness internationally to become part of the global supply chain (Joesoef, 2022).

It can be concluded that the focus of the Indonesian government has the opportunity to create improvements to the air security surveillance structure from the results of the defense industry that has been built. In this situation, ADIZ was made as a supplemental capability in the national air defense system to help identify aircraft identified using Air-Defense radar. Increasing national security is the primary goal of the state in establishing ADIZ, which occasionally may extend across high seas. This is accomplished by identifying all aircraft as they approach the airspace above a State's national airspace in accordance with the parameters provided by the state that formed the ADIZ.

The next challenge is innovation and technology. Indonesia designates ADIZ as a support zone for air defense systems to detect planes approaching their territory. In reality, different governments' ADIZ zones are typically established outside their national borders towards the open ocean, which is international air space. As a result, they do not belong to the coastal state's sovereign territory. Although it is stated that the designation of an ADIZ that extends beyond a country's territorial boundaries does not extend state sovereignty, in reality, it establishes the mechanism by which foreign aircraft flying in international air space must adhere to the national laws of the coastal state (Linatussura, 2019). As a result, aircraft are now being developed with stealth capabilities, high speeds, and support from highly advanced weapon systems capable of breaching an opponent's air defense system. Military aviation technology, in particular, is thought to be developing very quickly. In order to deliver nuclear weapons, biological weapons, chemical weapons, and conventional warheads, intercontinental ballistic missiles (ICBMs) are ballistic missiles with extremely large ranges between continents. Unmanned aircraft (UAVs), which started to be utilized for military objectives, underwent more breakthroughs. In terms of content and altitude, UAVs are not constrained by human resources (pilots), unlike conventional aircraft (Linatussura, 2019).

This need for innovation and technology can be done to reduce fraud that occurs in the ADIZ area. Concern has been raised about the rise in foreign aircraft violating our airspace in recent years. A number of obstacles must also be overcome before a new Indonesian ADIZ may be declared and put into effect. Indonesia has declared its EEZ and boundary delimitations, which are shown on its most recent official map. On the precise coordinates, Indonesia still needs to negotiate with its neighboring states. The ongoing maritime boundaries delimitation discussions with the Ministry of Foreign Affairs would have to be taken into consideration in any ongoing inter-agency procedures to push through a final ADIZ (Joesoef, 2022).

THE PROSPECT OF THE NEW INDONESIAN ADIZ AFTER THE SIGNING OF THE FIR REALIGNMENT AGREEMENT BETWEEN INDONESIA AND SINGAPORE 2022

Flight Information Region (FIR) is an airspace of defined dimensions that provides flight information and alerting services (Annex 11 to the Convention on International Civil Aviation, 2016). The FIR area may depend on factors other than the territory of a State, even though FIR usually encompasses the whole airspace over the territory of a State. To delegate responsibility for providing air traffic services in certain FIR regions from one state to another, neighboring states could conclude mutual agreements. One of the delegations of FIR management occurs between Indonesia and Singapore in the airspace over Indonesia's territory of Riau and Natuna Islands (Natuna FIR). In 1995, Indonesia and Singapore signed *the Agreement Between the Government of the Republic of Indonesia and the Government of the Republic of Singapore on the Realignment of the Boundary between the Singapore Flight Information Region and the Jakarta Flight Information Region*, which realigned the boundary between Singapore FIR and Jakarta FIR according to new sea boundaries under the United Nations Convention on Law Of The Sea (UNCLOS 1982). Indonesia later concluded a new agreement with Singapore on 25 January 2022, integrating part of the Singapore FIR area of 249.575 km² that covers all the airspace over the Riau and Natuna Islands into the Jakarta FIR. However, a part of the Indonesian airspace is still controlled by Singapore since it remained in control over the management of Natuna FIR at 0-37,000 feet. This delegation certainly affected Indonesia's legal authority to exercise sovereignty over its airspace, as stipulated by international law.

In international law, sovereignty is related to governments with complete control over their affairs within territorial boundaries or geographic areas and, in some cases, with organizations or agencies with their legal jurisdiction (Andrew, 2011). According to the law, Indonesia has complete and exclusive control over the airspace in its territory. That is, Indonesia has the right to use its airspace to ensure regional security state air and free from various risks through air media, such as navigational threats and violations of national airspace regulations. Force Down is one of the many initiatives the Indonesian Air Force carried out to maintain Indonesia's air sovereignty. Unfortunately, the sanctions imposed on violators do not have a deterrent effect (Desker, 2022). Seeing this reality, the conception of sovereignty is intact and entire (complete and exclusive) of space air over its sovereign territory. This is enlisted in Article 1 of the Chicago Convention 1944. The article shows the embodiment of total and complete sovereignty over airspace over the territorial area is (1) Every country is entitled to manage and control the air space completely; (2) None of the activities or business in national air space without getting permission first or as stipulated in the agreement air between countries both bilaterally and multilaterally. It can also be in the form of authority through an agreement with the state neighbours in terms of supply FIR and services warning (Alerting Service/ALRS) at an aviation information area as a delegation of authority from the ICAO based on division of airspace for information flight.

Utilization of airspace is the implementation of complete and exclusive sovereignty of Indonesia. The Indonesian government is entitled to manage airspace settings, national interests, aviation and defence and state security, including FIR, which is a form of implementation of Indonesian sovereignty over the territory of the air itself. But since 1946, Natuna FIR has been known to be controlled by Singapore; this condition has been feared over time, leading to disputes in the airspace between Indonesia and Singapore. Moreover, Indonesia detected Singapore often makes that area an air force training ground; this is one form of violation of territorial sovereignty. Air navigation regulation polemic part of Indonesia controlled by Singapore already surfaced for decades. After the effective entry into force of the UNCLOS 1982 by the United Nations, FIR problems with Singapore began to appear. With entry into force, the convention resulted in the territory of Indonesian air becomes wider, intended based on the provisions of Article 2 Paragraph (2) UNCLOS, which states that the

sovereignty of a state includes airspace over its territorial sea. Indonesia also said that the FIR that Singapore has managed does not include national airspace Singapore but is included within Indonesian airspace (Campbell, 2021).

Nevertheless, two-way cooperation between Singapore and Indonesia has developed into the signing of the newest FIR realignment agreement. The newest agreement between the governments of Singapore and Indonesia on realigning the border between the Jakarta FIR and the Singapore FIR was ratified on 5 September 2022, according to Presidential Regulation Number 109 of 2022, which the Indonesian government created. In addition, the transport ministries of the two nations signed a follow-up agreement to the FIR Agreement in February 2023 (Antara News, 2023).

From these developments, there are gaps in potential and prospects for the development of Indonesia's national defence by exploiting the potential threats possessed by Singapore. In traditional research, national security is often described as the context of defending the state from external (military) physical threats. Nonetheless, current global developments threaten national defence are also non-military or non-traditional threats. To maintain defence and state security in the face of these threats, the state often increases the strength and ability of its military to strengthen its defence capabilities, involving other states (Drab, 2018). In this case, cooperative security can be an example of the interest and participation of a state with other states in the defence cooperation framework. One way to achieve the goal of defending the state is to use diplomacy defence.

In addition, Indonesia's defence structure also includes a total defence system for achieving national goals. At least, this national goal will always be in line with the national interest to safeguard and protect the sovereignty of Indonesia by Pancasila and the 1945 Constitution, as well as ensuring development at the national level to achieve national goals. To measure the strength of the defence, it can be seen that the capacity of state defence is assessed from the material resources owned by the state to be converted into military power. According to Jasjit Singh, three things are tools for analyzing the state's defence capability: Manpower (number of armed forces), Machine (the primary device of the system weapons), and Money (budget). The analysis of the active military workforce shows that the number of Indonesian troops is based on the total population available, approximately 130 million, with a dynamic armed forces of 435 thousand; thus, only 0.4% of the total population is active. Hence, as a state with the 4th largest population in the world, Indonesia still has not been able to use its human resources to improve military capabilities. Singapore has fewer human resources than Indonesia; in terms of population, number of resources the available human population is 1.2 million, while for the generation active armed forces, Singapore only has 72,000 troops. However, regarding the number of human resources, Singapore's armed forces are far lower than Indonesia's (Singh, 2021).

The second prospect refers to the conception of the primary weapon system machine/tool, the main component used to measure a country's defence capability, including military or military weapons/defence equipment. In the global ranking, as measured by mastery of Indonesian weapons and equipment, Indonesia ranks 26th for possessing weapons on land, 28th for the number of ships, and 34th for total aircraft. Viewed from Indonesia's land, sea and air scale capabilities show that the TNI is very weak and inefficient. Even so, the TNI's defence equipment condition still meets the standards, such as minimum essential power that must be met. From the side number of aircraft, Indonesia has 441, Singapore has 226, Indonesia has 418 tanks, Singapore has 196, Indonesia has 221 naval assets, and Singapore has 40. The number comparison is very far from Indonesia and Singapore's total assets and ownership of defence equipment. Specifically speaking about air defence, as of 2013, just 21% of its aircraft had seen duty for less than ten years, while over 35% had been in operation for over 30 years (Devi, 2022). Therefore, the Indonesian Air Force (TNI AU) is modernising its fleets and updating its infrastructure. In addition to having enough competent personnel to staff its radar

stations and Military-Civil Coordination Centres, it requires an additional dozen radars to offer thorough and continuous monitoring of the airspace. That way, if this ratification goes ahead, it will benefit Indonesia in overseeing and pursuing security, especially air security. (Saw et al., 2001).

The next prospect relates to money or investment, commonly called the defence budget issued by a state. As we all know, the budget of Indonesia's defence will always be variable, which affects every realization of defence posture. Compared to Singapore, which has a higher defence budget than Indonesia, Singapore ranks 23rd, while Indonesia's defence budget ranks 30th. One example is that Indonesia and Singapore have conducted various military exercises together, securing the Malacca Straits and the military training area (MTA), which has started to run effectively in the national defence and security field. The agreement was made on 21 September 1995, where MTA 1 is located on Tanjung Pinang Island, and MTA 2 is in the South China Sea. However, the agreement was terminated unilaterally by Indonesia in 2003. It will be reviewed again because Singapore has always had problems with violating the territory specified in the MTA agreement. It also wishes Singapore to involve troops from other countries, namely the United States and Australia, conducting exercises in the Indonesian environment (Rodgers and Otieno, 2021).

For example, the perpetrator was only fined 60 million Rupiahs in the Force Down case. The amount is insufficient and certainly not comparable to the operational costs of flying an aeroplane attack class Sukhoi TNI AU, which can cost 400 million Rupiahs every hour. At least four incidents of unscheduled flights (black flights) occurred in Indonesia between late 2014 and early 2015 when the pilot was forced to land (pushed down) in Indonesian territory by the Indonesian Air Force. That event occurred in Manado on 22 October 2014, Pontianak on 28 October 2014, Kupang on 3 November 2014, and Tarakan on 9 November 2015, all in North Kalimantan. Ironically, the fines imposed on foreign pilots detained by these parties are minimal compared to the operational costs that must be borne by the Indonesian Air Force (Haripin, 2019). In addition, because Indonesia's standards are still weak, the legal process for the parties operating the flight cannot be continued. Many people have been affected by these two factors. Furthermore, the lack of special investigators who handle issues of state sovereignty in airspace is one of the causes of weak law enforcement against perpetrators of airspace violations. Ministry of Transportation Civil Servant Investigator (PPNS) currently has investigative authority. Meanwhile, Defense Command The National Air Force (Kohanudnas) of the Indonesian Air Force can only stop aircraft that are flying over Indonesian airspace because it will only act at the level of enforcement of ordinary criminal law, the development of law enforcement authority is assessed has the potential to lead to the resolution of cases of airspace violations.

After signing the FIR between Indonesia and Singapore in 2022, the solution to this problem was considered more optimal. This is because the function of technology can be more involved, making it easier to target. However, the current delegation of Natuna FIR to Singapore will still halt the determination of the new Indonesian ADIZ. This is because a new ADIZ could not be established within a part of the airspace that is still managed by another State (Kaiser, 2014). In this situation, a portion of the airspace around Indonesia is governed by the FIR of its neighbours. Enforcing a unilateral new ADIZ as a means of early identification for any aircraft entering Indonesia's airspace will become difficult daily since a portion of Indonesia's airspace remains in Singapore's control.

CONCLUSION

Territorial sovereignty means a state's capacity to operate jurisdiction or authority over persons, objects, and actions within its territory. In general, the physical presence of a person or thing in the area of a state will give rise to jurisdiction state over that person or thing. However, on the other hand, there are restrictions on the validity of a jurisdiction country if

associated with immunity or the immunity of the head of state foreigners, foreign diplomats, flagged ships foreign, foreign armed forces, or institutions internationally within a particular period time of existence to which it is attributed with where it currently exists somebody.

ADIZ, also known as airspace expressly designated from the established dimensions, is a zone where aircraft must adhere to unique identification and supplementary reporting procedures connected to air traffic services. International practice that has evolved into customary international law (CIL) and the self-defense concept acknowledged in Article 51 of the UN Charter serves as the legal foundation for establishing ADIZ. The primary goal of creating an ADIZ is to detect any approaching aircraft for security reasons so that they can meet the necessary conditions before entering national airspace. In determining defense policies, especially those related to efforts to create national security, an in-depth analysis of the order is required: ideology, politics, economy, society, and culture. These aspects require domestic, regional, and international review because possible threats can occur.

Moreover, in the era of globalization, which increasingly emphasizes cooperation and interaction between nations and increasing inter-nation economies, the spectrum of threats is increasingly complex. State defense policy is one of the policies made to increase love for the motherland and citizen discipline in Indonesia. Defending the state has the basis contained in Article 30 Paragraph 1 of the the 1945 Constitution, which states that "every citizen has the right and obligated to participate in the defense and security of the state".

To identify foreign aircraft entering Indonesian airspace early and to provide security for the Indonesian Archipelagic Sea Lanes (ALKI), the establishment of ADIZ in the country's EEZ is a crucial and required subject. This has the potential to become a long-term prospect that can be maximized to meet Indonesia's air security needs. Furthermore, the signing of the FIR agreement by Indonesia and Singapore in 2022 has produced a new pattern in Indonesia's air defense strategy. Although the creation of a new Indonesian ADIZ might still not be possible after the signing of the FIR agreement, Indonesia's air defense can develop after this treaty's signing. However, this also requires an evaluation of the long-term plan for air defense in Indonesia so that it can produce national air sovereignty in the future.

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