



## Aligning Indonesia's Space Command with *Astagatra*

Kenneth Lee

Faculty of Law, Parahyangan Catholic University, Bandung, Indonesia

Corresponding Author: [kenlee090520@gmail.com](mailto:kenlee090520@gmail.com)

---

### Article Info:

### Abstract

---

#### Keywords:

*Astagatra*, Legal Hierarchy,  
National Resilience, Normative  
Legal Research, Space Command

**Purpose:** This paper aims to examine Indonesia's space command initiative by developing a normative legal reasoning based on the national resilience framework, specifically the integration of *Astagatra* and legal hierarchy to support space defence regulation.

---

#### Article History:

Received : 14-10-2024

Revised : 28-02-2025

Accepted : 30-03-2025

**Study Design/Methodology/Approach:** The research applies normative legal analysis using statutory sources including the 1945 Constitution and Law Number 34 Year 2004. The principle of legal supremacy guides the interpretation of legislative gaps. *Astagatra* is used as an interdisciplinary framework to assess whether legal norms reflect national resilience objectives in space command development.

---

#### Article DOI :

10.55960/jlri.v13i1.1068

**Findings:** The current legal framework lacks specific regulation for space command. However, the *Astagatra*-based legal reasoning model demonstrates normative coherence and strategic relevance in positioning space command within Indonesia's defence architecture. The integration of constitutional norms and resilience dimensions supports the urgency for legislative reform.

**Originality/Value:** This paper contributes a legal reasoning framework that combines statutory authority with a resilience-based policy model. It offers a strategic justification for regulating space command as a national priority aligned with long-term state resilience.

---

**How to cite :** Lee, Kenneth (2025). Aligning Indonesia's Space Command with *Astagatra*. *Jurnal Lemhannas RI*, 13(1), 69-88. <https://doi.org/10.55960/jlri.v13i1.1068>



This work is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/). Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.

Published under licence by Lemhannas Press.

---

## INTRODUCTION

The constant rapid developments in science and technology have left a significant impact on numerous sectors. The domination of the skies since the Great War exemplifies how science and technology have significantly contributed to the pursuit of aerial domination. Whether flying medevac helicopters or strafing runs, these flying warhorses charge from above the ground. Today's military aircraft have shifted the focus away from traditional ground forces to prioritising air supremacy (Taylor, 2020). The idea of conquering the skies reached new heights in the wake of the Second World War as aircraft were increasingly recognised in combat. Consequently, two major political rivals competed for the natural extension of the air domain. Despite tensions during the Cold War, the late 1950s and early 1960s were milestones in space exploration.

During this period, prominent space-faring nations, including the United States and Russia, allocated substantial resources to research and development in support of their extraterrestrial programmes. Initial efforts to cross the Von Karman Line were largely governed by legal frameworks that promoted outer space as the common heritage of humanity. This normative approach was particularly influenced by the geopolitical context of the Cold War. Both the United States' Space for Peace Policy and the 1967 Outer Space Treaty illustrate early attempts by treaty drafters to legally inhibit the militarisation of outer space (Terrill, 1999). However, the ideal of peaceful space utilisation proved to be short-lived. As the strategic advantages of intelligence, surveillance, target acquisition, and reconnaissance (I-STAR) became evident, interstate rivalries intensified. This escalation underscored that current perceptions of safety may conceal significant risks in the future (Gultom, 2003 as cited in Wresniwiro, 2003).

Determining a strategic posture that prioritises national objectives remains a fundamental responsibility of the Indonesian government, particularly amid the growing global trend toward the militarisation of outer space. In response to this evolving security landscape, the Indonesian Air Force has increasingly engaged in discussions concerning outer space governance. This was evident during a 2024 diplomacy workshop jointly organised by the National Air and Space Power Centre Indonesia (NASPCI), Strategic ASEAN International Advocacy and Consultancy (SAIAC), and the National Research and Innovation Agency (BRIN), where the Head of the Air Force Communication and Electronics Department, Air Commodore Penny Radjendra, outlined a few pressing strategic concerns. Among the key issues raised were the growing importance of space security, the emergence of non-traditional space-based threats, the risks associated with orbital debris, and the management of both military and civilian satellite utilisation (Indonesian Air Force, 2024).

Moreover, the Air Commodore adds that space threats are not limited to military-related aggressions. From a non-tactical angle, space debris constitutes a non-military threat to orbiting satellites. This shift from a conventional tactical understanding of threats to a more universal non-combat approach underscores the various sectors affected by outer space issues.

A recent statement from the Indonesian Air Force in December 2024 indicates that the establishment of a space command will remain a central strategic focus in 2025 (Aditya and Santosa, 2024). Positioning space command at the core of military priorities is considered both timely and strategically aligned with national objectives. To ensure its effectiveness, Indonesia must anticipate and respond to both external and internal challenges that may hinder its implementation. Within this strategic imperative, various dimensions should be examined through the analytical lens of the Nusantara Concept (Wawasan Nusantara), which forms the basis of Indonesia's geopolitical perspective by emphasising national unity, as well as socio-cultural and geographical strengths (Mukhlis and Padilah, 2023). The implementation of the Nusantara Concept from a geostrategic perspective constitutes a manifestation of national resilience, which reflects Indonesia's capacity to withstand threats by mobilising comprehensive collective empowerment across ideological, political, economic, socio-cultural, military, and technological dimensions to achieve national objectives (Rachman, 2023).

The concept of national resilience is manifested through the *Astagatra* framework, which establishes interdisciplinary relationships between the natural aspect (*Trigatra*) and social aspect (*Pancagatra*) of Indonesia (Mulyono et al., 2024). The conceptual framework elucidates Indonesia's diverse social and natural characteristics, which constitute strategic resources for attaining national objectives. To optimise these resources, it is necessary to formulate deliberate policy measures that position the future space command as an integral element in advancing those goals. This strategic alignment requires a sound legal foundation; wherein national legislation assumes a critical role in supporting government policy and ensuring legal certainty. At the normative level, establishing a space command in accordance with the 1945 Constitution forms a core component of Indonesia's space defence strategy. Nevertheless, existing legal instruments are outdated and inadequate in responding to contemporary defence imperatives. Law Number 34 of 2004 concerning the Indonesian National Armed Forces (TNI) lacks a comprehensive legal foundation for the development of space defence capabilities, let alone for establishing a dedicated institutional structure for a space command.

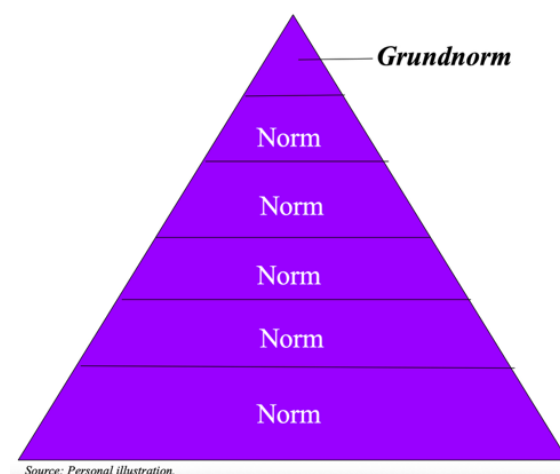
Therefore, amending Law Number 34/2004 is imperative to accommodate the strategic demands of space defence (Nugraha and Amalia 2020). Furthermore, a cross-sectoral evaluation is required to ensure that the establishment of a space command contributes meaningfully to national resilience. Integrating this military initiative within the *Astagatra* framework enables a more comprehensive understanding of its strategic potential. Accordingly, this study aims to examine the extent to which the existing legal framework supports Indonesia's efforts to institutionalise a space command in alignment with *Astagatra*. It further explores two principal questions: (1) To what extent does the current legal framework provide an enabling foundation for the formation of Indonesia's space command? (2) In what ways can the incorporation of *Astagatra* principles strengthen the effectiveness of Indonesia's space defence policy and enhance national resilience.

## LITERATURE REVIEW

### Theoretical Studies

Indonesia's legal system rests upon a structured hierarchy of norms, with the 1945 Constitution serving as the *grundnorm* that legitimises all subordinate legislation. This foundational role aligns with the concept proposed by Hans Kelsen, a legal positivist, whose *Stufenbau* theory views law as a systematic structure composed of interrelated normative layers. The *grundnorm* functions as the supreme norm from which all legal instruments derive their authority (Lima, 2023). The Constitution requires that lower-level regulations elaborate its provisions through statutory enactments. Legal instruments, including Laws and Government Regulations, function to implement the constitutional mandates. Article 30 Paragraph 5 of the 1945 Constitution mandates that the regulation of national defence be established through statutory law. In response, the legislature enacted Law Number 34 of 2004 concerning the Indonesian National Armed Forces, which outlines the responsibilities and organisational structure of the military branches.

As a civil law country, Indonesia follows a legal tradition inherited from the Dutch colonial administration. This tradition, influenced by the legal frameworks of Germany, France, and the Netherlands, prioritises codified legislation as the principal source of law (Irfani, 2020). In contrast, common law systems in countries like the United Kingdom and the United States emphasise judicial precedent and case law. The reliance on written law characterises the civil law model and reinforces the hierarchical nature of legal authority in Indonesia. Kelsen's theory complements this model by illustrating legal norms as ascending layers, conceptually represented as a pyramid (Tresnadipangga, Fuad, & Suartini, 2023). This hierarchical organisation provides clarity on the authority and application of each legal instrument.



Source: Developed by the author (2025)

**Figure 1. Pyramid of the Legal Hierarchy**

The implementation of Kelsen's theory in Indonesia materialises through the legal doctrine *lex superior derogat legi inferiori*, which obliges lower laws to conform to higher

ones (Mustika, Suprpto, and Faishal, 2021). The doctrine holds significant importance in maintaining legal certainty by ensuring consistency and preventing contradictions within the legal system. Law Number 12 of 2011 concerning the Establishment of Laws and Regulations formalises the doctrine by defining the legal hierarchy. The Constitution occupies the highest position, followed by statutes enacted by the legislature, government regulations, and various levels of regional regulation. Table 1 summarises the structure of this hierarchical order.

Table 1. National Legislation Hierarchy in Indonesia

Nr.	Clarification on the Position of the Regulation within the Legal Hierarchy
1	<i>Undang-Undang Dasar Negara Republik Indonesia Tahun 1945</i> (The 1945 Constitution)
2	<i>Ketetapan Majelis Permusyawaratan Rakyat</i> (Resolutions of the People's Consultative Assembly)
3	<i>Undang-Undang/Peraturan Pemerintah Pengganti Undang-Undang</i> (Regulation of the Government in Lieu of Law)
4	<i>Peraturan Pemerintah</i> (Government Regulation)
5	<i>Peraturan Presiden</i> (Presidential Regulation)
6	<i>Peraturan Daerah Provinsi</i> (Regional Regulation)
7	<i>Peraturan Daerah Kabupaten/Kota</i> (Regency/City Regional Regulation)

Source: Article 7 of the Law 12/2011 concerning the Establishments of Legislations.

Beyond the vertical ordering of laws, one must also understand their internal composition. Statutory laws generally consist of six main parts: Title, Preamble, Provisions, Closing, Explanatory Notes, and Appendix (Hariadi, 2021). This research concentrates on the Provisions and Explanatory Notes due to their importance in legislative amendments.

The provision outlines binding legal rules and constitute the core substance of a statute. Lawmakers typically revise this section when changing the scope or application of legislation. The Explanatory Notes clarify the lawmakers' intent and support the interpretation and implementation of the law. Septian and Abdurahman (2021) affirm that the Explanatory Notes hold normative value; therefore, any revision to the Provisions requires corresponding changes in this section to ensure alignment between legal substance and its interpretation.

The *Astagatra* and How It Correlates with the Legal Discipline

National resilience serves as a necessary foundation for achieving Indonesia's strategic objectives. The integration of *Trigatra* and *Pancagatra* forms the core of this

resilience framework, representing the natural and societal dimensions of the state respectively (Sudiro, Rizqoh, & Jupriyanto, 2023). *Trigatra* includes demography, geography, and natural resources, while *Pancagatra* encompasses ideology, politics, economic structure, socio-cultural conditions, and defence. Hendropriyono, A.M. (2013) explains that the coordinated implementation of these components results in *Astagatra*, a framework that reflects the nation's capacity to endure pressures and pursue long-term objectives (Saraswati, 2024).

*Astagatra* offers a comprehensive model for reinforcing national strength and ensuring coherence across public policy (Sudiro, Rizqoh, & Jupriyanto, 2023). The framework holds substantial significance in structuring state resilience by connecting constitutional values with strategic sectors. In the defence domain, the development of a space command necessitates integration between tactical planning and legal alignment. Each legislative product must correspond to national resilience priorities while remaining consistent with established legal principles. The 1945 Constitution serves as the foundational legal norm within Indonesia's legal hierarchy and embeds *Pancasila* as the ideological basis of the state. The principle of legal supremacy, articulated through *lex superior derogat legi inferiori*, requires that all legal instruments conform to the values enshrined in the Constitution.

The constitutional text aligns closely with the elements of *Pancagatra*. Ideological and political principles appear in the Preamble and early chapters. Economic provisions are contained in Chapter XIV, while socio-cultural rights are regulated in Chapters XA and XIII. Chapter XII sets out the role of national defence, including the mandate of the armed forces. At the same time, constitutional articles reflect *Trigatra* through their emphasis on territorial unity, demographic management, and geographic structure. These elements demonstrate that legal instruments must not only comply with constitutional hierarchy but also support national resilience as conceptualised through *Astagatra*. The formulation of future defence strategies, including the legal foundation for a space command, must incorporate this integrated legal and strategic orientation (Najla et al, 2024).

## Empirical Studies

Academic and institutional interest in space-related defence has increased significantly in Indonesia. Nugraha and Sudirman (2025) observe that since 2024, the Indonesian Air Force has initiated efforts to explore the establishment of a space command aimed at strengthening early warning, surveillance, and reconnaissance capabilities. The discourse reflects an evolving recognition of outer space as a domain of strategic importance. Several scholars have contributed to this discussion through normative and legislative analyses. Francoise and Leuwayan (2023) emphasise the urgency of establishing a national space law as a guiding instrument for long-term defence planning, especially in preparing for Indonesia's Golden Generation by 2045. Nugraha and Amalia (2020) offer legislative recommendations that focus on amending Law

Number 34 Year 2004 to provide a legal foundation for space command within the Indonesian Air Force.

Public statements by the Indonesian Air Force reaffirm the institution's commitment to the development of a space command (Aditya and Santosa, 2024). Despite this growing interest, scholarly discussions remain limited in articulating how the initiative contributes to national resilience. Existing analyses often examine legal or strategic aspects in isolation, overlooking the integrative value offered by the Astagatra framework.

Gaps persist in connecting outer space defence planning with broader state resilience models. Few studies incorporate legal hierarchy and constitutional alignment into the discussion of strategic space command. The lack of integrated legal perspectives restricts the formulation of policies that are both constitutionally grounded and aligned with the objectives of national resilience. Placing stronger emphasis on the legal and constitutional foundation of space initiatives enables policymakers to align defence modernisation with Indonesia's broader framework for national resilience. By adopting the Astagatra perspective, future academic and policy efforts can ensure that space command development supports state resilience holistically. A resilience-based approach would integrate legal certainty, institutional coordination, and national values embedded in the 1945 Constitution, thereby strengthening Indonesia's strategic autonomy and long-term defence posture.

## METHODS

The study applies normative legal research, focusing on legal hierarchy and statutory regulation to examine the formulation of Indonesia's space command within the framework of national resilience. This method relies on document-based analysis using secondary sources, primarily constitutional texts and legislation (Dewi, 2022). The analysis concentrates on authoritative legal documents, including the 1945 Constitution and Law Number 34 Year 2004 concerning the Indonesian National Armed Forces, which function as the primary sources of binding legal norms (Widiarty, 2024).

Legal interpretation in this research refers to the principle of legal supremacy known as *lex superior derogat legi inferiori*. This principle allows the researcher to assess the relationship between higher and lower norms, specifically examining how the 1945 Constitution governs the formulation and limitations of statutory law. The analysis identifies the absence of an explicit legal basis for space command within the existing statutory framework and explores the normative consequences arising from this omission. While other legal principles commonly support normative legal analysis, including *lex specialis derogat legi generali* and *lex posterior derogat legi priori* (Negara, 2023), the research deliberately focuses on legal hierarchy to ensure conceptual precision.

To complement the doctrinal analysis, the researcher adopts the Astagatra framework as a strategic model for assessing national resilience. Astagatra integrates the natural components of Trigatra, which include geography, demography, and natural resources, with the societal dimensions of *Pancagatra*, which include ideology, politics,

economy, socio-cultural life, and defence. The research aligns each component with existing legal provisions to determine whether national legislation contributes effectively to the objectives of resilience. Through this integration, the study incorporates a multidisciplinary lens that remains consistent with the evolving direction of resilience scholarship, which increasingly draws upon legal, political, and strategic perspectives (Hanita, 2020). Marzuki (2009) also confirms that normative legal research may employ insights from non-legal fields to evaluate the broader objectives of the state. The structure of this research is presented in Figure 2.

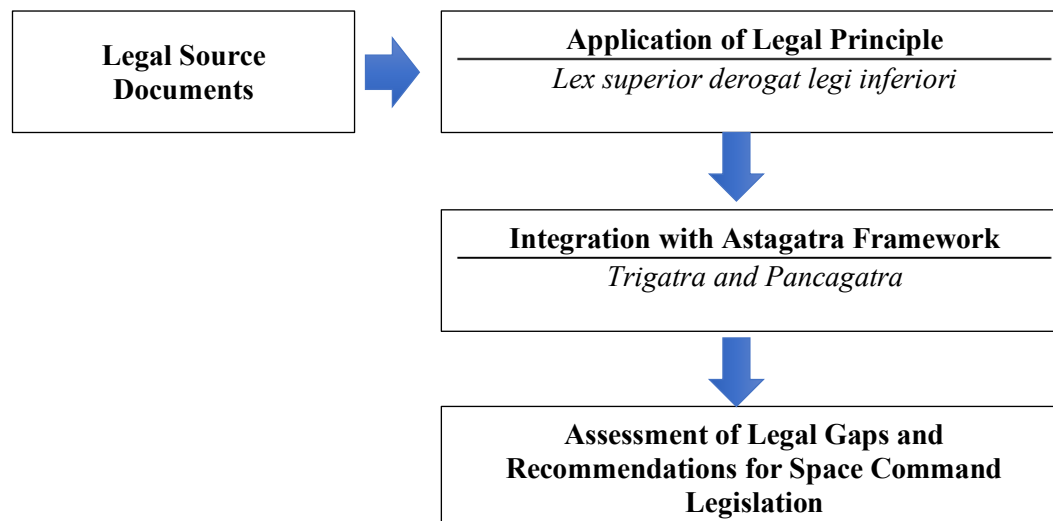


Figure 2. Analytical structure of the research

## RESULT AND DISCUSSION

### Result

The Indonesian National Armed Forces holds constitutional authority for national defence, as stipulated in the 1945 Constitution. The three service branches include the Army (TNI AD), the Navy (TNI AL), and the Air Force (TNI AU). Among them, the Air Force has emerged as the most relevant institution in discussions concerning outer space, given that space is an extension of the air domain. However, Law Number 34 Year 2004, which serves as the legal foundation for the Armed Forces, does not contain any provisions on space defence (Nugraha and Amalia, 2020). The most recent revision of the law has incorporated cyber defence but continues to exclude outer space from its regulatory scope (Ministry of Communications and Digital Affairs, 2025).

A key legal impediment lies in Article 10 letter b of Law Number 34 Year 2004, which limits the jurisdiction of the Air Force to "national airspace" (wilayah udara yurisdiksi nasional). This restriction confines operational authority to the Earth's atmosphere, ending at the Von Karman Line, located approximately one hundred kilometres above the Earth's surface (Wilmer and Bettinger, 2022). In an internal consultation with the Indonesian Air Force Legal Department (personal communication,



5 August 2024), Air Force officials acknowledged this limitation and expressed the need for legislative revision.

The current legal structure fails to accommodate outer space as a strategic defence domain, thereby undermining Indonesia's capacity to respond to contemporary security challenges. From a legal perspective, this omission demonstrates a misalignment between Indonesia's statutory instruments and its long-term defence imperatives.

The *Astagatra* framework, which integrates *Trigatra* (natural elements) and *Pancagatra* (societal elements), offers a normative basis to reinterpret national resilience considering emerging domains. The geographical and technological aspects of *Trigatra* demand extended sovereignty into space, while the defence and political components of *Pancagatra* justify institutional adaptation through legal reform. Within this framework, space command must not be seen as an isolated innovation but rather as a structural necessity for sustaining Indonesia's strategic autonomy.

This study finds that the restriction embedded in the current legislation contradicts Indonesia's strategic needs, particularly the defence-security component of *Pancagatra* and the geographic imperatives of *Trigatra*. A legal revision must adopt a resilience-based legislative framework that situates space command as a strategic necessity anchored in *Astagatra*. Integrating legal coherence with the *Astagatra* framework provides a conceptual foundation for redefining national defence legislation and positioning Indonesia's space command within a future-oriented, constitutionally aligned security posture.

## Discussion

### Choosing Between Space Command and Space Force

The expansion of the Indonesian Air Force's area of responsibility through revising the Law remains the most feasible option to establish a space command within its structure rather than forming an independent space force. As the highest level of regulation in Indonesia, the 1945 Constitution mandates that every legal policy must comply with its provisions, in accordance with the principle of *lex superior derogat legi inferiori*. Currently, the constitution recognises only three branches of the armed forces, as stated in Article 30. Should the state pursue an independent space force, constitutional amendments through the procedures outlined in Article 37 of the 1945 Constitution would be required. Thus, revising Law Number 34/2004 provides the most practical legal path for establishing a space command within the Indonesian Air Force.

### Revising The Law

The revision of Law Number 34 of 2004, as a subordinate regulation, must adhere to the provisions of the 1945 Constitution. From a political standpoint, this implies that Indonesia's space command must adopt a non-offensive posture in accordance with constitutional principles. This research continues by examining the consistency between

proposed legal amendments and constitutional mandates. Any revision to Law Number 34 of 2004 must be accompanied by the amendment of related instruments, including Presidential Regulation Number 66 of 2019 concerning the organisational structure of the Indonesian National Armed Forces. Reforming this structure is essential to support future space defence strategies. In line with the principle of *lex superior derogat legi inferiori*, amendments to subordinate regulations may be lawfully undertaken following the revision of the higher-level legal framework.

An additional concern for revising the Law is to modernise outdated provisions and formulate a contemporary legal basis for extending the Indonesian Air Force's responsibilities into outer space. Sumantri and Amalia (2020) recommend that lawmakers consider the term "aerospace" (*dirgantara* in Bahasa Indonesia), which includes the geostationary orbit as defined in the explanatory notes of Law Number 20/1982 concerning National Defence Components. Although Law Number 20/1982 is now obsolete, it exhibited forward-thinking insights into space military potential. Another recommendation is to directly state that the Air Force's responsibilities include outer space rather than ambiguously using the term "aerospace." As emphasised, the explanation section must clearly define "aerospace" as encompassing airspace and its natural extension into outer space, beginning at the Von Karman Line (100–110 km above Earth's surface), as this section is regarded by scholars as instrumental in interpreting the lawmakers' intent.

### Seeking A Non-Offensive Space Command

The United States, Russia, and China are predominantly leading nations in military and civilian outer space activities. As a prominent nation in Asia, China has developed a robust space policy by emphasising the growing importance of offensive air, long-distance mobility, and both space and cyberspace operations (US Defense Intelligence Agency, 2022). Beijing's space defence policy specifically highlights space-based systems, particularly in conducting and developing intelligence, surveillance, and reconnaissance capabilities. Russia also implements a robust space policy, although it is more narrowly focused on strengthening military capabilities, in contrast to the broader strategic orientation pursued by China. Military modernisation constitutes a central component of Russia's space programme. It reflects Moscow's ambition to pursue a counter-space system to anticipate the United States' military and civilian space policy. The US Space Force is another formidable contender, but its continuing shift towards a warfighting posture to maintain a competitive advantage and counter China's space programs may not conform with *Astagatra*, particularly Indonesia's commitment to non-aggressive policies (Department of the Air Force, 2023).

As observed by Muhammad (2019), the United States and China's space policy exhibits a pronounced ambition. Since the year 2000, China has developed strategies to leverage US vulnerabilities in outer space by utilising high technology and improving military readiness for space-based future war (Space Commission Report, 2001 as cited in Salla, 2021). The United States, however, perceives outer space as a theatre for

countermeasures. Balancing the threat is the United States' strategy, driven by apprehensions regarding the likelihood of a "Space Pearl Harbour" attack from adversaries, notably China and Russia. This resonated in the 2004 US Space Acquisition Policy, which advocates the use of weapon systems to counter perceived threats (Schmitt, 2006). However, scholars commented that the status of the policy remains a grey area, oscillating between deterrence and a means of self-defence. Furthermore, Makena Young (2024) notes a reluctance among numerous nations, including the United States, to openly acknowledge defensive capabilities in orbit. Nevertheless, "containing adversaries" makes up most of the policy objectives set by contending space-faring nations.

Be that as it may, a non-offensive space command is what lawmakers and the Indonesian Air Force are seeking. This initiative aligns with the political stance delineated in the *grundnorm*, which promotes impartial foreign policy and a non-offensive approach. The 1945 Constitution asserts Indonesia's strong commitment to denouncing acts of aggression. Pursuant to this constitutional obedience, Indonesia could observe how its French counterpart developed a space command in the French Air and Space Force (*Armée de l'Air et de l'Espace*). The French Space Command (*Le Commandement de l'Espace*) or CDE for short, sits under the French Air and Space Force and was declared fully operational in 2020. The Centre for Strategic and International Studies review of the French Space Command highlighted France's unique position as the only European country that has openly discussed its intentions regarding defensive space capabilities (Young, 2024). In its 2019 Space Defence Policy, the discourse surrounding Anti-Satellite Weapons (ASATs) reflected France's defensive posture. France remains in favour of "blinding" the satellites of adversaries as opposed to actively engaging in hard-hitting the target. Moreover, in 2022, France called for states to refrain from conducting destructive ASAT tests as its commitment to protecting a safe and stable environment. This approach signifies France's deliberate strategy to prioritise defence over offensive military operations in outer space.

Since becoming the French Air and Space Force, the *Armée de l'Air et de l'Espace* has articulated its strategic orientation through three primary postures: *Protéger*, *Dissuader*, and *Intervenir* (Armée de l'Air et de l'Espace, n.d). These postures, as elucidated by Pasco (2021), underscore France's proactive measures in proposing ways to prevent an uncontrolled arms race in outer space. Notably, the defensive posture demonstrated by France remained uninterrupted for nearly 60 years since its inception (Lavigne 2021). Besides, France does not favour instigating actions like harassment activity below the threshold of armed aggression but instead promotes responsible behaviour in outer space through a pragmatic approach at the European level (Adam and Storey, 2023, p. 84). Perhaps, France's posture towards extraterrestrial military activities shares some common values with Indonesia, and for the most part, is non-offensive. The general notion of France's posture encapsulated by *Protéger*, *Dissuader*, and *Intervenir*, signifies France's commitment to avoiding offensive confrontation unless vital national interests are jeopardised. Positioning the French Air and Space Force *vis a vis* with the *Astagra* framework offers a significant opportunity to conceptualise the space command model that aligns with national resilience.

On the other spectrum, international relations are equally decisive in shaping Indonesia's defence policy, not to mention the space command initiative. A notable illustration of this is the 2022 agreement between the Indonesian Ministry of Defence and its French counterpart, which entailed the procurement of 42 *Rafales*. This decision was made after early plans to procure Russian SU-35 fighter jets were scrapped, fearing threats of US sanctions amidst the Russian invasion of Ukraine. This decision shows that Indonesia's foreign policy tries to avert contending geopolitical pressure, notably from the US and Russia – and to some extent China. International relations scholars define this decision as “strategic hedging.” According to Basundoro (2023), the contract for 42 *Rafales* is nonetheless Indonesia's discretion in aiming for a safe political path to circumvent geopolitical pressures. Further reflecting on the *Rafale*'s procurement, high-ranking officials in the Indonesian Ministry of Defence indicated that the contract for 42 French-made fighter jets was in several ways motivated by the dynamic state of international politics. This kind of “strategic hedging” underlines Indonesia's strategy to its soft-balancing approach towards the geopolitical pressure it faces.

Amongst the Western actors in the Indo-Pacific, France maintains a significant presence in the region, notably through its overseas territories like French Polynesia. This not only signifies France's timeless interest in the region but also retains France's leverage in the Indo-Pacific. Although this European nation considers itself a “resident power” in the region, France sought no intention to antagonise or contain China (Nguyen and Linh, 2023). Indonesian legal scholars observe France's presence in the Indo-Pacific as a positive leverage for Southeast Asian countries, fostering a sense of stability in the region. International relations discourses notice how France's relatively independent yet friendly posture in the South China Sea successfully bridges the United States-China's straining relations. Scholars Bachelier and Pajon (2023) further summarise France's “balancing presence” in the Indo-Pacific as appealing to certain regional actors that renounce being squeezed by the United States and China's geopolitical pressures. France's cooperative policy in the Indo-Pacific contributes to the development of constructive partnerships with China across multiple sectors, including maritime security, economic engagement, scientific research, and other joint initiatives, as outlined *La Stratégie de la France dans l'Indopacifique* (Basundoro, 2023).

In addition to that, Indonesia's political stance, the free and active principle, aligns with France's constitutional system, the *Politique Indépendance France* as observed by Mardhika, de Fretes, and Simanjuntak (2023). France's *Politique Indépendance France* promotes the concepts of independence, human rights, democracy, and legal supremacy, which in return have advocated the long-standing bilateral relationship between Paris and Jakarta (Mardhika et al, 2023). The common shared values, mainly in a non-offensive approach towards outer space might see France as a neutral geopolitical partner.

## The Space Command Initiative Through the Lens of *Astagatra*

### Space Command and *Trigatra*

The *Trigatra*, as stipulated, encompasses the natural aspects of Indonesia. The interrelation of demography, geography, and social conditions are three strategic characteristics that could serve as supporting pillars for Indonesia's prosperity and security (Wismayana and Pinatih, 2020). Geographically situated between two continents and two oceans, Indonesia emerges as the largest nation in Southeast Asia. This strategic location not only establishes a critical economic route but also renders strategic geographical vulnerability, notably tension in the South China Sea (Lemhannas, 2022). The South China Sea serves as leverage for the world's economic growth, with the Malaccan Strait facilitating 40% of the world's maritime trade (Haerulloh and Martani, 2023). In the event of a military conflict, the outcome would be catastrophic. The ramifications could instigate profound disruption in the social conditions of the people, with the local economy and monetary matters at risk of crumbling.

Military discourses consistently emphasise that space command will reinforce intelligence and deterrence capabilities through early warnings, command, and control, which help render swift and timely strategic decisions for military commanders (United States Government Accountability Office, 2023). In times of crisis, military commanders and regional governments can take the necessary actions to mitigate threats, prevent collateral damage, in an effort to reduce the impact of the conflict to the very minimum. Historically, the preparedness in both wartime and in times of peace has been underscored by renowned thinkers, including the Roman writer Publius Vegetius, mostly known as "*Si vis pacem, para bellum*" (Allmand, 2011). Within this context, geopolitical tensions present uncertainty and regional instability. Consequently, it is timely that Indonesia has the adequate apparatus to better anticipate and prepare for the unknown. The prospective establishment of Indonesia's space command can help with the archipelago's defence and security, and the people within.

### Space Command and *Pancagatra*

*Pancagatra* consists of the ideology *gatra*, consists of the ideology *gatra*, which upholds Pancasila and its values as the foundational philosophy and political ideology of Indonesia (Barlian and Herista, 2021). The influence of Pancasila extends beyond legal and national identity matters and permeates everyday social interactions (Nadir, 2020). Enshrined normatively in the 1945 Constitution, the ideology has shaped a unified, yet pluralistic nation committed to neutrality and resolutely opposed to any form of aggression. Any form of threat that potentially undermines Pancasila requires swift and precise response to safeguard national identity and uphold constitutional principles. The range of possible threats includes both internal and external sources, from military aggression to efforts intended to subjugate Indonesia. An important factor in mitigating these risks lies in the strength of intelligence capabilities supported by the space command. As long as Indonesia's space command remains aligned with Pancasila and

the constitutional values embedded in the *grundnorm*, it can effectively safeguard the national ideology amidst escalating geopolitical tensions that threaten its endurance.

The second *gatra* of *Pancagatra* is politics. The combat power projection exemplified by the space commands of the United States, Russia, and China serves as a pertinent reference point for understanding contemporary geopolitical dynamics. In light of the tensions among these rival powers, scholars suggest that Indonesia reduce its dependency and remain proportionately free and active in the international spectrum (Rastuti and Khoirudin, 2025). The recent United States-China trade war, coupled with the Russian invasion of Ukraine has positioned Indonesia in a challenging dilemma between these significant global powers. Based on the theoretical lens of “strategic hedging,” as discussed previously, Indonesia aims to circumvent geopolitical pressures from global powers. This was demonstrated by the Indonesian Ministry of Defence’s decision to procure 42 *Rafales* rather than the Russian-made SU-35 fighter jets. The “strategic hedging” theory underlines Indonesia’s awareness of its geopolitical challenges and illustrates a deliberate effort in foreign policy to avoid jeopardising the nation’s regional stability. The procurement of 42 *Rafales* demonstrates textbook implementation of the *Astagatra* framework, by taking a politically safe decision aimed at averting potential tensions and sanctions through the empowerment of national resilience. Therefore, France stands out as an ideal neutral geopolitical partner for Indonesia. Offering both geostrategic support and a technological model for Indonesia’s space command initiative. Indonesia can cultivate a geopolitically safe environment for its space command by modelling its French counterpart, similar to how the Indonesian Ministry of Defence decided to procure the *Rafales*.

The third and fourth *gatra* of *Pancagatra* are economic and socio-cultural aspects. Albeit space command primarily functions within the nation’s defence structure, research indicates its prominent role in protecting national prosperity and economic security through the peaceful use of outer space (Lombardo, 2024). Space commands are designed to deter potential interruptions by possible adversaries. The outer space sector enables navigation, global monitoring, and long-distance communications for civilian and military purposes. Moreover, it contributes to crisis preparedness, which is pivotal in maintaining societal security (Ministry of Defence of Sweden, 2025). This protection enables the safe and functioning of daily activities. Making the risk of military engagement as minimal as possible is crucial to promoting societal security for a stable socio-economic environment. Although limited, empirical discourses argue that military spending stimulates economic growth through job creation (Iuga and Socol, 2023). Future Indonesia’s space command also has the potential to catalyse advancements in science and technology, thereby contributing to the nation’s overall development. Promising Indonesia’s demography to take part in national resilience.

Lastly, the fifth *gatra* of *Pancagatra* is defence and security. It is sensible that the space command initiative functions the most within the defence sector. Military discourses consistently assert that space command will bolster the Indonesian Air Force in Wartime Military Operations and Military Operations Other Than War (Sumantri, Martinus, and Abu, 2023). Currently, the Indonesian Air Force relies on existing civilian

satellites, which serve as dual-function satellites, thereby yielding operational cost efficiency. Although the use of dual-function satellites remains the most practical approach for the near future, as indicated by the Air Force's Chief of Staff during his visit to a private Indonesian satellite telecommunications company in September 2024 (Achmad and Rastika, 2024), it would significantly be more advantageous for the military utilisation of outer space to be integrated into the Indonesian Air Force structure rather than operated jointly. This research supports the ongoing use of dual-function satellites for budgetary efficiency but advocates the separation of civilian and military operations by allowing each sector to focus on its core competencies. Empirical studies on the French Air and Space Force reveal that France's *Le Commandement de l'Espace*, which is separated from the French National Space Agency (*Centre national d'études spatiales*), not only reinforces military capability but also bolsters space reorganisation and the larger operational role given to space capabilities (Pasco, 2021). This measure promotes cleaner delineation of separate military and civilian roles, ensuring a cohesive strategic approach to the outer space realm for national defence.

## CONCLUSION

This research confirms that the relationship between the legal discipline and the Astagatra framework offers a structured basis for developing *Astagatra*-based legal reasoning to support Indonesia's space command initiative. Through a normative legal approach, the analysis demonstrates that Law Number 34 of 2004 remains insufficient in meeting the strategic imperatives of space defence. The legal principle of *lex superior derogat legi inferiori* justifies the need to revise subordinate regulations in line with the supremacy of the 1945 Constitution. By integrating elements of *Trigatra* and *Pancagatra*, the findings demonstrate that the space command initiative is not only consistent with national defence mandates but also contributes to strengthening Indonesia's overall national resilience. These findings directly respond to the research question by illustrating how a well-structured legal hierarchy can provide constitutional legitimacy for the Indonesian Air Force's authority in outer space operations.

Moving forward, the Indonesian government is encouraged to initiate a comprehensive legislative revision that explicitly includes outer space within the operational scope of the Air Force, supported by constitutional principles and guided by a non-aggressive defence doctrine. Drawing inspiration from the French model, Indonesia may adapt a defence-oriented posture while maintaining strategic neutrality in the Indo-Pacific. Researchers are recommended to extend this study by examining the technological, diplomatic, and economic implications of the space command initiative. Future inquiries should also investigate the institutional readiness and policy instruments required to operationalise space defence without compromising civilian oversight or geopolitical balance. These recommendations will contribute to strengthening national resilience and securing Indonesia's strategic interests beyond Earth's atmosphere.

## REFERENCE

- A.Barlian, A. E., & Herista, A. D. P. (2021). Pembangunan Sistem Hukum Indonesia Berdasarkan Nilai-Nilai Pancasila Sebagai Ideologi Politik Bangsa. *Jurnal Lemhannas RI*, 9(1), 88–98. <https://doi.org/10.55960/jlri.v9i1.379>
- Achmad, N. M., & Rastika, I. (2024, April 25). BRIN Bahas Pengembangan Satelit untuk Waspada Permasalahan Keamanan Antariksa. *Kompas.Com*. Retrieved from <https://nasional.kompas.com/read/2024/04/25/21403741/brin-bahas-pengembangan-satelit-untuk-waspada-permasalahan-keamanan>
- Adam, P., & Storey, M. (2023). Space Defence: Challenges for the French Space Command. *Revue Défense Nationale, Special issue(HS2)*, 83–88. Cairn.info. <https://doi.org/10.3917/rdna.hs11.0089>
- Aditya, N. R., & Santosa, B. (2024, December 11). TNI AU Lanjutkan Rencana Pembentukan Satuan Antariksa Tahun Depan. *Kompas.Com*. Retrieved from <https://nasional.kompas.com/read/2024/12/11/21205151/tni-au-lanjutkan-rencana-pembentukan-satuan-antariksa-tahun-depan>
- Allmand, C. (2011). *The De Re Militari of Vegetius The Reception, Transmission and Legacy of a Roman Text in the Middle Ages*. Cambridge University Press.
- Armée de l’Air et de l’Espace. (n.d). *Nos missions*. Retrieved from <https://www.defense.gouv.fr/air>
- Bachelier, J., & Pajon, C. (2023). *France in the Indo-Pacific: The Need for a Pragmatic Strategic Posture*. Focus stratégique. Retrieved from [https://www.ifri.org/sites/default/files/migrated\\_files/documents/atoms/files/ifri\\_bachelier-pajon\\_france\\_in\\_the\\_indo-pacific\\_oct2023.pdf](https://www.ifri.org/sites/default/files/migrated_files/documents/atoms/files/ifri_bachelier-pajon_france_in_the_indo-pacific_oct2023.pdf)
- Basundoro, A. F. (2023). Pembelian Pesawat Tempur Dassault Rafale sebagai Implementasi Strategic Hedging Indonesia di Indo-Pasifik. *Jurnal Hubungan Internasional*, 16(1), 264–283. <https://doi.org/10.20473/jhi.v16i1.38237>
- US Defense Intelligence Agency. (2022). *Challenges To Security In Space: Space Reliance in an Era of Competition and Expansion* (pp. 1–70). Defense Intelligence Agency. Retrieved from [www.dia.mil/Military-Power-Publications](http://www.dia.mil/Military-Power-Publications)
- Department of the Air Force. (2023). *Comprehensive Strategy for the Space Force* (pp. 1–12) [Congressional Report]. Department of the Air Force. Retrieved from <https://www.spaceforce.mil/Portals/2/Documents/Space%20Policy/CRR-FY23-Comprehensive-Strategy-Space%20Force-15-Aug-23.pdf>
- Dewi, Cokorde Istri Dian Laksmi. (2022). Bantuan Hukum Bagi Warga Binaan Yang Menjadi Korban Di Dalam Lembaga Pemasyarakatan. *Jurnal Lemhannas RI*, 10(2), 117–133. <https://doi.org/10.55960/jlri.v10i2.277>
- Francoise, J., & Leuwayan, S. (2023). The Readiness of Indonesian Space Defence. *AEGIS*, 7(1), 89–97. <https://doi.org/10.33021/aegis.v7i1.3975>
- Government Offices of Sweden, Ministry of Defence. (2025). *The Role of Space in A New Security Situation: Sweden’s Defence and Security Strategy For Space* (p. 43). Retrieved from <https://www.government.se/contentassets/f336052c285a464cb8741da433ac703b/swedens-defence-and-security-strategy-for-space.pdf>
- Haerulloh, A. A., & Martani, R. F. (2023). Analisis Geopolitik Abad 21 Di Indo-Pasifik Dan Persiapan Indonesia Dalam Menyikapi Konflik Di Laut Cina Selatan. *Jurnal*



- Lemhannas RI*, 11(3), 187–201. <https://doi.org/10.55960/jlri.v11i3.479>
- Hanita, M. (2020). *Ketahanan Nasional: Teori, Adaptasi, dan Strategi*. UI Publishing. <https://books.google.co.id/books?id=tKoZEAAQBAJ>
- Hariadi, A. (2021). Kerangka Peraturan Perundang-Undangan. *Pusdik MKRI*. Retrieved from [https://pusdik.mkri.id/materi/materi\\_234\\_10.%20Teknik%20Penyusunan%20Peraturan%20Perundang-Undangan%20\(Bagian%20I\)%20-%201A.pdf](https://pusdik.mkri.id/materi/materi_234_10.%20Teknik%20Penyusunan%20Peraturan%20Perundang-Undangan%20(Bagian%20I)%20-%201A.pdf)
- Harrison, T., Johnson, K., Moye, J., & Young, M. (2022). *Space threat assessment 2020*. Center for Strategic and International Studies (CSIS). <https://www.csis.org/analysis/space-threat-assessment-2020>
- Hendropriyono, A. M. (2013). *Filsafat Intelijen Negara Republik Indonesia*. Penerbit Buku Kompas.
- Indonesian Air Force. (2024, April 26). *Bahas Peran Penting Satelit dan Antariksa, NASPCI, SAIAC, dan BRIN Gelar Diplomacy Workshop*. Retrieved from <https://tni-au.mil.id/berita/detail/bahas-peran-penting-satelit-dan-antariksa-naspci-saiac-dan-brin-gelar-diplomacy-workshop>
- Indra Arya Sumantri, Martinus D.A.W., & Supri Abu. (2023). *Urgensi Satuan Antariksa Untuk Melindungi Wilayah Udara Nasional Indonesia*. Widina Media Utama. Retrieved from <https://repository.penerbitwidina.com/media/publications/565282-urgensi-satuan-antariksa-untuk-melindung-75bflcbb.pdf>
- Irfani, N. (2020). Asas Lex Superior, Lex Specialis, Dan Lex Posterior: Pemaknaan, Problematika, Dan Penggunaannya Dalam Penalaran Dan Argumentasi Hukum. *Jurnal Legislasi Indonesia*, 16(3), 305–325. <https://doi.org/10.54629/jli.v17i3.711>
- Iuga, I. C., & Socol, A. (2023). Defending the Nation, Securing the Economy. *E&M Economics and Management*, 26(4), 17–37. <https://doi.org/10.15240/tul/001/2023-4-002>
- Komdigi.go.id (2025, March 20). *Revisi UU TNI, Jadikan Indonesia Siap Hadapi Ancaman Siber*. Retrieved from <https://www.komdigi.go.id/berita/berita-pemerintahan/detail/revisi-uu-tni-jadikan-indonesia-siap-hadapi-ancaman-siber>
- Lavigne, P. (2021). The French Armée de l’Air et de l’Espace. Preserve a model adapted to the challenges, develop agility as an asset, obtain value and optimize use. *Vortex: Studies on Air and Space Power*, 1, 13–24. [https://www.irsem.fr/storage/file\\_manager\\_files/2025/03/en-vortex-n-1-int-gral.pdf](https://www.irsem.fr/storage/file_manager_files/2025/03/en-vortex-n-1-int-gral.pdf)
- Lemhannas RI. (2022, March 16). Gubernur Lemhannas RI menyoroti letak geografis Indonesia sebagai kerawanan strategis. Berita & Artikel. <https://lemhannas.go.id/berita/berita-utama/1431-gubernur-lemhannas-ri-menyoroti-letak-geografis-indonesia-sebagai-kerawanan-strategis/id>
- Lima, M. R. (2023). Die Grundnorm: Hans Kelsen’s Solution to the Problem of Normative Foundation. *IOSR Journal Of Humanities And Social Science*, 28(4), 31–43. <https://doi.org/10.9790/0837-2804023143>
- Mardhika, R., Fretes, C. H. J. de, & Simanjuntak, T. R. (2023). Kepentingan Indonesia Dalam Hubungan Kerja Sama Pertahanan Indonesia-Perancis (Studi Kasus: Pembelian Pesawat Tempur Dassault Rafale Tahun 2020-2022). *Jurnal Jukim*, 2(4), 43–55. <https://doi.org/10.56127/jukim.v2i04.757>

- Ministère de l'Europe et des Affaires étrangères. (2022, July 11). Space – France's commitment not to conduct destructive direct-ascent anti-satellite missile tests. French Ministry for Europe and Foreign Affairs. Retrieved from <https://www.diplomatie.gouv.fr/en/french-foreign-policy/security-disarmament-and-non-proliferation/news/2022/article/space-france-s-commitment-not-to-conduct-destructive-direct-ascent-anti>
- Muhammad, A. N. (2019). Revisiting U.S – China Aggressive Use of Outer Space: A Comprehensive International Law Outlook Towards Military Comprehensive International Law Outlook Towards Military Activities in Outer Space. *Journal of International Law*, 16(4), 473–503. <https://doi.org/10.17304/ijil.vol16.4.761>
- Mukhlis, & Padilah, A. H. (2023). Wawasan Nusantara Dan Ketahanan Nasional Dalam Menjaga Konsep Negara Kesatuan Republik Indonesia, Antara Konsepsi Dan Implementasi Di Era Otonomi Daerah. *APSSI*, 1(2), 25–29. <https://pkns.portalapssi.id/index.php/pkns/article/view/88/85>
- Mustika, C. T., Suprpto, & Faishal, A. (2021). Penerapan Asas Lex Superior Derogat Legi Inferior dalam Penyelesaian Sengketa Informasi Publik. *Banua Law Review*, 3(1), 88–97. <https://doi.org/10.32801/balrev.v3i1.20>
- Nadir, M. (2020). Penguatan Nilai-Nilai Pancasila Dalam Pembentukan Jati Diri Pemuda Guna Terwujudnya Ketahanan Ideologi. *Taskap PPRA LXI Lemhannas RI*, 60. Retrieved from <http://lib.lemhannas.go.id/public/media/catalog/0010-022100000000110/swf/7909/57-M%20NADIR.pdf>
- Najlala, F. I., Haqsyah, M. L., Assago, C. C., & Kembara, M. D. (2024). Membangun Ketahanan Nasional Melalui Penerapan Rule Of Law dan Konstitusi Nasional. *Atmosfer: Jurnal Pendidikan, Bahasa, Sastra, Seni, Budaya, Dan Sosial Humaniora*, 2(3), 10–18. <https://doi.org/10.59024/atmosfer.v2i3.870>
- Negara, T. A. S. (2023). Normative Legal Research In Indonesia: Its Origins And Approaches. *Audito Comparative Law Journal*, 4(1), 1–9. <https://doi.org/10.22219/aclj.v4i1.24855>
- Nguyen, H. T., & Linh, H. V. (2023). France's Indo-Pacific strategy and the role of Vietnam. *Journal of Liberty and International Affairs*, 9(3), 435–455. <https://doi.org/10.47305/JLIA2393533tn>
- Nugraha, T. R., & Amalia, P. (2020). Militerisasi Ruang Angkasa, Quo Vadis Indonesia? *Mimbar Hukum*, 32(3), 377–391. <https://doi.org/10.22146/jmh.52601>
- Nugraha, T. R., & Sudirman, A. (2025). Indonesia's Space Defence Programme: Opportunities and Challenges. *IDSS Paper*, 010, 1–4. Retrieved from <https://rsis.edu.sg/wp-content/uploads/2025/02/IP25010.pdf>
- Pasco, X. (2021). Space security in the 21st century: A French view. In *Space and Missile Wars: What Awaits*. Nonproliferation Policy Education Center. Retrieved from [https://npolicy.org/article\\_file/Space\\_and\\_Missile\\_Wars-chapter\\_4.pdf](https://npolicy.org/article_file/Space_and_Missile_Wars-chapter_4.pdf)
- Peter Mahmud Marzuki. (2009). *Penelitian Hukum Normatif*. Kencana Prenada Media Grup.
- Rachman, A. (2023). *Strategi Pertahanan Negara Indonesia*. Madza Media. Retrieved from <http://repository.sttal.ac.id/688/1/07%20BUKU%20REFERENSI%20SISHANNE%20G-24%20FEBRUARI%202023%20108%20HAL%20-%20editor.pdf>

- Rastuti, T., & Khoirudin, A. A. D. (2025). Politik Hukum Indonesia dalam Menghadapi Retaliasi Perang Dagang China terhadap Amerika Serikat Berdasarkan Prinsip Proteksionisme. *Jurnal Litigasi*, 26(1), 26–66. <https://doi.org/doi.org/10.23969/litigasi.v26i1.15157>
- Ryan M. Lombardo. (2024). *Space Command And Control In A Contested Environment: Is Usspacecom Getting It Right?* (Number AU/ACSC/2024). Air Command and Staff College, Air University. Retrieved from <https://www.spacecom.mil/Portals/57/Lombardo%20GCPME%202024%20Space%20C2%20in%20a%20Contested%20Environment.pdf>
- Salla, M. (2021). *Space Force: Our Star Trek Future (Secret Space Programs)*. Amazon Digital Services LLC - Kdp.
- Saraswati, N. M. V. (2024). Relevansi Ketahanan Nasional dalam Tata Kelola Pemerintahan. *Swantara*, 51. Retrieved from [https://lemhannas.go.id/cdn/majalahswantara/7/1/Swantara\\_Edisi\\_51.pdf](https://lemhannas.go.id/cdn/majalahswantara/7/1/Swantara_Edisi_51.pdf)
- Schmitt, M. N. (2006). International Law and Military Operations in Outer Space. In *Max Planck UNYB 10*. Koninklijke Brill N.V.
- Septian, I. F., & Abdurahman, A. (2021). Status Hukum Penjelasan Undang-Undang Berdasarkan Sistem Peraturan Perundang-Undangan Indonesia. *Jurnal Hukum & Pembangunan*, 51(3), 803–826. <https://doi.org/10.21143/jhp.vol51.no3.3136>
- Sudiro, P. A. S., Rizqoh, E. A., & Jupriyanto. (2023). Kajian Potensi Fungsi BAKAMLA RI Dalam Mewujudkan Ketahanan Nasional Di Laut Berdasarkan Undang-Undang Nomor 32 Tahun 2014. *Jurnal Lemhannas RI*, 11(2), 83–92. <https://doi.org/10.55960/jlri.v11i2.429>
- Taylor, F., E. (2020). *A House Built on Sand: Air Supremacy in US Air Force History, Theory, and Doctrine*. Air University Press.
- Terrill, D. R. (1999). *The Air Force Law In Developing Outer Space Law*. Air University Press.
- The 1945 Constitution of The Republic of Indonesia. Retrieved from <https://www.mkri.id/public/content/infoumum/regulation/pdf/uud45%20eng.pdf>
- Tresnadipangga, B., Fuad, F., & Suartini. (2023). Harmonisasi Peraturan Perundang-Undangan Dalam Pelaksanaan Bantuan Sosial di Republik Indonesia. *Binamulia Hukum*, 12(1), 213–226. <https://doi.org/10.37893/jbh.v12i1.438>
- Undang-undang (UU) Nomor 20 Tahun 1982 Tentang Ketentuan-Ketentuan Pokok Pertahanan Keamanan Negara Republik Indonesia. Retrieved from <https://peraturan.bpk.go.id/Details/47031/uu-no-20-tahun-1982>
- Undang-undang (UU) Republik Indonesia Nomor 34 Tahun 2004 Tentang Tentara Nasional Indonesia. Retrieved from <https://peraturan.bpk.go.id/Details/40774/uu-no-34-tahun-2004>
- Undang-undang (UU) Nomor 12 Tahun 2011 Tentang Pembentukan Peraturan Perundang-Undangan. Retrieved from <https://peraturan.bpk.go.id/Details/39188/uu-no-12-tahun-2011>
- United States Government Accountability Office. (2023). *Space Command And Control: Improved Tracking and Reporting Would Clarify Progress amid Persistent Delays* (Number GAO-23-105920; Report to Congressional Committees, p. 42). Retrieved from <https://www.gao.gov/assets/gao-23-105920.pdf>

- Wantannas RI. (2018). *Buku Modul Utama Pembinaan Bela Negara*. PT Delta Mandiri Kusuma. Retrieved from <https://www.wantannas.go.id/storage/bela-negara/modul-i-konsepsi-bela-negara.pdf>
- Widiarty, W. S. (2024). *Buku Ajar Metode Penelitian Hukum*. Publika Global Media. Retrieved from <http://repository.uki.ac.id/14688/1/BukuAjarMetodePenelitianHukum.pdf>
- Wilmer, A. P., & Bettinger, R. A. (2022). Beyond the High Ground A Taxonomy for Earth- Moon System Operations. *Air and Space Operations Review*, 1(2), 13–26. Retrieved from [https://www.airuniversity.af.edu/Portals/10/ASOR/Journals/Volume-1\\_Number-2/ASOR\\_Vol-1\\_No-2.pdf](https://www.airuniversity.af.edu/Portals/10/ASOR/Journals/Volume-1_Number-2/ASOR_Vol-1_No-2.pdf)
- Wismaya, W. M., & Patih, N. K. D. A. (2020). Pandemi dan Tantangan Ketahanan Nasional Indonesia: Sebuah Tinjauan Kritis. *Jurnal Lemhannas RI*, 8(2), 93–100. <https://doi.org/10.55960/jlri.v8i2.312>
- Wresniwiro. (2004). *Insiden di Atas Bawean* (1st ed.). AK Group Yogyakarta.
- Wilmer, A. P., & Bettinger, R. A. (2022). Beyond the High Ground A Taxonomy for Earth- Moon System Operations. *Air and Space Operations Review*, 1(2), 13–26. <https://scholar.afit.edu/facpub/1115/>