Air Sovereignty: Legal Foundations, Strategic Dimensions, And Contemporary Challenges

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Abstract
This study examines air sovereignty as a core pillar of the state's complete authority over its territory, particularly in relation to territorial protection, the regulation of air navigation, the governance of civil and military aircraft, and the management of cross-border threats. It proceeds from the premise that airspace is no longer merely the vertical extension of territory, but a sensitive domain where international law, national security, technological change, and international civil aviation intersect. The study aims to clarify the legal concept of air sovereignty, analyze its treaty-based and regulatory foundations, and investigate its strategic and security dimensions in light of the growth of unmanned aircraft systems, the increasing closure of airspaces, and new forms of threat. It also addresses how states balance complete sovereignty over national airspace with the practical necessity of international cooperation. The paper employs the doctrinal legal method, the comparative method, and the functional method. It concludes that air sovereignty cannot be reduced to a mere right of exclusion, but should be understood as a composite sovereign function encompassing regulation, surveillance, protection, coordination, and adaptation to technological and security change.
Keywords: Air Sovereignty - Airspace - Chicago Convention -State Aircraft - National Security

I. Introduction

Air sovereignty stands at the intersection of public international law, transport regulation, military strategy, and state security. It expresses the authority of the state to control the airspace above its land territory and territorial waters, yet it operates within a wider international framework designed to preserve safe and predictable aviation. For that reason, air sovereignty is both a legal status and a practical system of governance.

In contemporary practice, the issue has become substantially more complex than it was in the classical age of aviation. States now face challenges from civil overflight, military reconnaissance, unmanned aerial vehicles (UAVs), hybrid threats, cyber vulnerabilities in air traffic management systems, and sudden crises that may require the partial or total closure of national airspace. This complexity makes the subject worthy of renewed and systematic academic treatment.

The present study is organized as follows: after setting out the research framework, it proceeds through three main sections before reaching its conclusions, results, and recommendations.

II. Importance of the Study

The importance of this study lies in four principal elements. First, it clarifies one of the most sensitive manifestations of territorial sovereignty in contemporary international law. Second, it establishes a direct connection between legal doctrine and the fields of national security and aviation governance. Third, it explains how states manage the inherent tension between exclusive territorial authority and the demands of international cooperation. Fourth, it assists policymakers and legal scholars in understanding why effective air sovereignty today depends not only on legal title, but also on institutional capacity, technical surveillance, and inter-agency coordination.

III. Objectives of the Study

1. Define air sovereignty in legal and strategic terms.
2. Explain the treaty and customary foundations of state authority over national airspace.
3. Distinguish between civil aircraft, state aircraft, and protected uses of airspace.
4. Analyze the security dimensions of air sovereignty in the age of drones and contested skies.
5. Propose practical approaches for balancing sovereign control with international aviation obligations.

IV. Research Problem

How can the state preserve its complete and exclusive sovereignty over the airspace above its territory while remaining bound by the operational demands of international civil aviation, the special legal treatment of state aircraft, and the emerging realities of cross-border technological threats?

V. Hypothesis

The effectiveness of air sovereignty no longer depends solely on legal recognition, but increasingly on the state's ability to integrate law, air traffic regulation, defense doctrine, technical monitoring, and international coordination into a unified and coherent governance framework.

VI. Research Methodologies

1. **The doctrinal legal method**, used to analyze the rules governing sovereignty over airspace, interpret treaty provisions, and examine their conditions of application.
2. **The comparative method**, used to compare legal categories such as civil aircraft, state aircraft, restricted areas, and international airspace, as well as national practices and legal orders.
3. **The functional method**, which connects legal principles with operational realities in the fields of security, aviation safety, and public administration.

VII. Structure of the Study

Section One: Conceptual and legal foundations of air sovereignty.
Section Two: Strategic and security dimensions of air sovereignty.
Section Three: Governance, institutional balance, and future directions.
Each section is divided into two requirements *(Matalib)*, and each requirement is subdivided into branches *(Furu')*.

1. Conceptual and Legal Foundations of Air Sovereignty

This section lays the theoretical and legal basis of the study. It begins by defining the concept of air sovereignty and tracing its origins, and then moves to the legal rules that shaped it in modern international law. The objective is to show that the legal regime of airspace emerged from a combination of territorial logic, security necessity, and treaty organization progressively refined since the early twentieth century.

1.1. The Concept and Scope of Air Sovereignty

The concept of air sovereignty cannot be understood without distinguishing it from related notions such as air power, freedom of navigation, and outer space law. The term also requires careful attention to the territorial scope of state authority. This requirement focuses first on definition and historical development, and then on the legal extent of sovereign authority over national airspace.

1.1.1. Definition of Air Sovereignty and Its Distinction from Related Concepts

Air sovereignty may be defined as the state's authority to regulate, permit, restrict, or prohibit the use of the airspace above its territory in accordance with its legal order and its international obligations. In analytical terms, it differs from air power - which refers to the capacity to project influence or force through the air environment - and it differs equally from the law of outer space, where the logic of exclusive territorial control does not apply in the same manner.

The classical legal position developed around the principle that airspace above national territory forms an integral part of the domain of state authority, whereas the regime governing outer space evolved on fundamentally different premises that reject sovereign appropriation. [1]This distinction remains essential in current practice because many disputes

[1] - Khaled Aaddour, Doctrinal and Legal Trends Regarding the Principle of State Sovereignty in Airspace, *Journal of Research in Law and Political Science* 7, no. 2, 2021, P256.

arise from ambiguity between territorial airspace, international air routes, and activities conducted at the upper boundary of the sovereign air envelope.

1.1.2. Territorial Extent and the Legal Nature of Exclusive Authority

The territorial extent of air sovereignty is linked to the land area of the state and its territorial sea. State jurisdiction in the air domain is therefore not abstract; it is territorially anchored and operates as an extension of the protection owed to the integrity of the national territory. The state's authority in the vertical dimension terminates where the air domain gives way to outer space, a boundary that international law has not yet fixed with mathematical precision.

The modern treaty formulation is explicit and widely accepted. Article 1 of the Chicago Convention of 1944 recognizes that every contracting state has complete and exclusive sovereignty over the airspace above its territory, and Article 2 links the notion of territory to land areas and the adjacent territorial waters under state sovereignty. [2]The legal importance of this formula is that it confirms both exclusivity and completeness simultaneously, thereby eliminating any presumption that foreign aircraft possess an inherent right of entry into sovereign airspace absent a specific legal basis.

1.2. Treaty Framework and Legal Restrictions

The treaty framework of air sovereignty does not abolish sovereign authority; it organizes its exercise. The practical question is therefore not whether sovereignty exists, but how it is exercised in relation to civil overflight, special permissions, and security restrictions. This requirement explains the architecture of that balance through the principal provisions of the Chicago Convention and the categories of aircraft and airspace it establishes.

1.2.1. The Chicago Convention Between Recognition of Sovereignty and Organization of Civil Aviation

The Chicago Convention of 1944 created the fundamental institutional order of modern civil aviation while simultaneously preserving the sovereign position of the territorial state. Consequently, the Convention should not be read as a text that weakens or qualifies sovereignty, but as one that channels its exercise into standardized rules, procedures, and mutual obligations compatible with the safety and regularity of international air navigation. It represents a legal architecture of coordination rather than limitation.

ICAO has consistently reaffirmed that states regulate, manage, and control the use of their own airspace - including the designation of routes, the imposition of restrictions, and the prohibition of flights over parts of their territory - and that this authority operates within the framework of the Convention and its technical Annexes. [3]This confirms that the legal regime of civil aviation rests on a coordinated model in which sovereign control and international standardization function together, making the Convention one of the most successful instruments of international governance in the twentieth century.

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[2] - Convention on International Civil Aviation, signed at Chicago, December 7, 1944, arts. 1–2.

[3] - International Civil Aviation Organization (ICAO), Statement on State Sovereignty over Airspace and Safety Assessments, December 2025, p. 3

1.2.2. State Aircraft, Restricted Areas, and Special Permissions

A second and legally distinct layer of the regime concerns aircraft that do not fall within the ordinary civil aviation framework. State aircraft — those used in military, customs, and police operations — raise sensitive questions because they are tied to fundamental public functions and because their movement may directly implicate national security, sovereignty, and defense. Their special status means that the ordinary rules of overflight permission and air traffic service do not automatically apply.

Article 3 of the Chicago Convention provides that the Convention applies only to civil aircraft and not to state aircraft, and that no foreign state aircraft may fly over the territory of another state or land thereon without authorization; Article 9 further permits states to designate restricted or prohibited areas for reasons of military necessity or public safety.[4] From a legal standpoint, sovereignty is at its strongest where state aircraft operations and security-sensitive restricted zones coincide, because in those domains the state exercises not merely administrative regulation but direct defense-related authority.

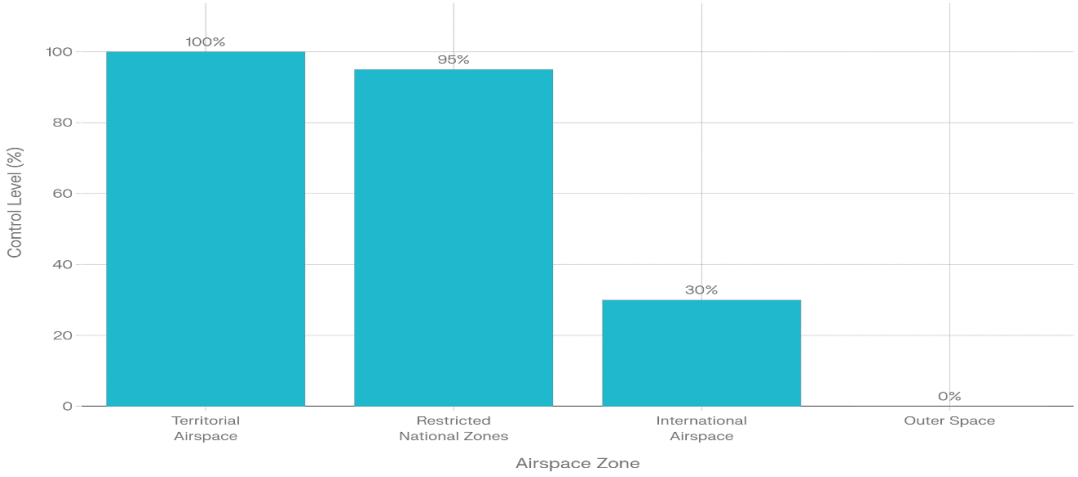
2. Strategic and Security Dimensions of Air Sovereignty

Legal sovereignty becomes meaningful only when it can be translated into effective control of the air environment. For that reason, the strategic dimension of air sovereignty is not secondary; it is central to its practical content. This section analyzes how security doctrine, threat environments, and technological change affect the exercise of sovereignty in the air domain, drawing on both legal sources and air power doctrine.

2.1. Air Sovereignty and National Security

The state does not protect its airspace through legal declarations alone. It must also possess the institutional and technical means to monitor, deter, intercept, and coordinate a response. This requirement links the legal concept of sovereignty to strategic control and defensive preparedness, showing that effective sovereignty in the air requires both a legal framework and an operational system capable of giving it real substance.

Figure 1: Pillars of Effective Air Sovereignty



Source: Prepared by the author based on ICAO publications and modern air power doctrines.

[4] - Convention on International Civil Aviation, Arabic version, 2017, arts.3 -9.

2.1.1. Control of the Air and the Strategic Meaning of Sovereignty

In strategic terms, air sovereignty requires more than a recognized border or a treaty commitment; it requires the demonstrated capacity to maintain a favorable air situation over national territory and to prevent unauthorized or hostile use of national airspace. The legal right without operational capability produces a formal sovereignty that is weak in practice, easily challenged, and difficult to enforce when incidents arise.

Contemporary air doctrine in major states treats control of the air as a foundational operational role because it underpins all other air activities, while published doctrine identifies air power as resting on the ability to project effect through control and exploitation in, from, and through the air environment. [5]This doctrinal perspective demonstrates that air sovereignty has an irreducibly institutional and operational dimension alongside its purely legal meaning, and that states which neglect this dimension risk holding a title that cannot be exercised effectively.

2.1.2. Interception, Prohibited Zones, and Risk Management

States operationalize air sovereignty in daily practice through surveillance systems, flight information regions, restricted or prohibited areas, interception procedures, and real-time risk assessment protocols. These instruments transform sovereignty from a declaratory principle embedded in treaty text into a functioning day-to-day system of administrative and security governance that must be maintained continuously.

ICAO has stated that states are responsible for ongoing safety and security assessments in the airspace under their jurisdiction and may restrict or uniformly prohibit flights over certain areas; aeronautical systems classify prohibited, restricted, and danger areas according to the nature of the hazard and the applicable limits on flight. [6]Air sovereignty thus appears not only as a right to exclude others, but simultaneously as a responsibility to govern the air domain in a manner that protects both aviation safety and national interests at the same time.

2.2. Contemporary Challenges to Air Sovereignty

The air domain is now affected by technologies and actors that were marginal or non-existent when the foundational legal instruments of air sovereignty were drafted. Drones, hybrid threats, electronic warfare, and rapidly shifting security environments have widened the gap between established legal categories and current operational realities. This requirement examines the most significant contemporary challenges.

Figure 2: State Control Intensity by Airspace Zone

Source: Prepared by the author based on the Chicago Convention (1944) and customary

[5] - UK Ministry of Defence, Joint Doctrine Publication 0-30: UK Air Power, 3rd ed. (London, 2022), p. 26; U.S. Air Force, AFDP-1: Air Force Doctrine, 2021, p. 14.

[6] - International Civil Aviation Organization (ICAO), Op Cit, p. 5.

international air law.

2.2.1: Unmanned Aircraft Systems and Cross-Border Operations

Unmanned aerial vehicles have introduced a new category of airspace actor that complicates the traditional framework because they can serve civilian innovation, commercial delivery, surveillance, armed strike, or covert state action. Their affordability and operational flexibility create a sovereignty challenge in which the threshold between an ordinary overflight violation and a serious security threat is often difficult to determine in real time.

Article 8 of the Chicago Convention provides that aircraft capable of being piloted without an operator on board may not fly over the territory of a contracting state without special authorization by that state; current operational guidance equally confirms that foreign state-affiliated aircraft may enter another state's sovereign airspace only with the latter's explicit consent. [7]The significance of this rule has grown enormously in the present era because drone technology has made unauthorized penetration of airspace easier, cheaper, and harder to counter through traditional interception means.

2.2.2. Contested Airspace, Hybrid Threats, and the Limits of Classical Doctrine

Air sovereignty is challenged not only by visible physical intrusion, but also by contested environments in which civil aviation, state military activity, cyber pressure on air navigation systems, and strategic signaling through airspace incidents occur simultaneously. In such environments, the line between safety management and geopolitical contestation becomes thin, and classical legal categories may prove insufficient without adaptation.

Recent ICAO statements emphasize that states retain authority to decide whether to designate or modify routes, restrict overflight, or alter service provision at any time on grounds of security, while air power doctrine continues to treat the maintenance of favorable air conditions as the foundation for wider strategic operations and national influence. [8]This means that classical doctrine remains valid as a starting point, but must now be applied in a context where sovereignty is exercised through dynamic risk management rather than static territorial exclusion alone.

2. Governance, Institutional Balance, and Future Directions

The final section moves from doctrine and strategy to governance. It examines how sovereign authority can be exercised in a manner that is effective, legally coherent, and administratively sustainable. It also integrates Arab legal scholarship and derives policy directions suitable for regional application.

3.1. Balancing Sovereignty and International Aviation Governance

No modern state can administer its airspace in complete isolation. Even when sovereignty is legally complete, aviation practice requires continuous information sharing, coordinated routing, due regard for other users, and technically interoperable procedures. This

[7] - International Federation of Air Traffic Controllers' Associations (IFATCA), State Aircraft and Due Regard Operations, February 18, 2026, p. 4.

[8] - Wissam Issa Rahm, Violation of State Sovereignty over Its Airspace, Master's thesis, College of Law, University of Karbala, 2022, p. 15.

requirement examines the institutional mechanisms through which that balance is maintained without diminishing sovereign authority.

3.1.1. Route Designation, Air Traffic Services, and Airspace Closure

The sovereign state retains the authority to determine the conditions under which air routes are used, what air traffic services are provided, and when parts of airspace must be closed or restricted in response to security needs, natural events, or other emergencies. These sovereign decisions are most effective when communicated through transparent, timely, and technically credible systems.

ICAO has underlined that states regulate and control the use of their own airspace, including route designation, the application of restrictions and prohibitions, and the scope of air traffic services, while they are also obligated to provide timely and accurate aeronautical information regarding the status of services, facilities, and existing hazards.[9] In governance terms, this demonstrates that sovereignty is strengthened by administrative clarity and reliable notification rather than weakened by it.

3.1.2. Due Regard, Coordination, and Functional Cooperation

The effective management of sovereign airspace requires coordination between civil aviation authorities and state aircraft operators, particularly when state aircraft operate outside ordinary civil procedures or when special missions require deviations from standard routing and separation.

Operational frameworks addressing state aircraft confirm that within sovereign airspace all foreign state aircraft may operate only with the express consent of the territorial state; in international airspace no state claims exclusive ownership, and in both contexts the principle of "due regard" governs safe coexistence between different categories of airspace users[10]. The implication is clear: sovereignty and cooperation are compatible when each is applied within its proper legal and procedural scope.

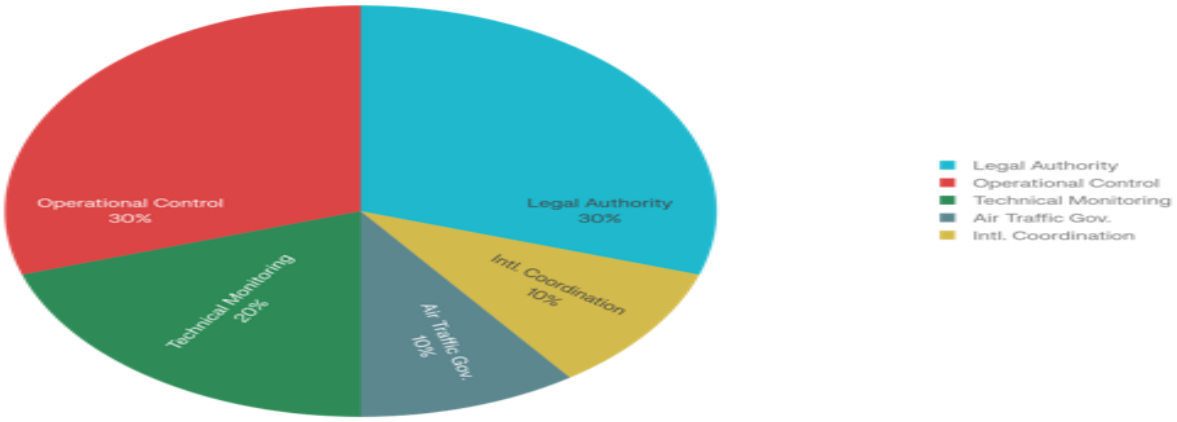
3.2. Arab Perspective and Policy Directions

Arab legal scholarship has paid sustained attention to the state's sovereignty over its airspace and to the distinctions between national airspace, international airspace, and outer space. Regional practice also demonstrates the importance of harmonizing domestic legislation with treaty obligations. This requirement presents a focused Arab-oriented legal perspective and derives concrete policy directions from it.

[9] - International Civil Aviation Organization (ICAO), Statement on State Sovereignty over Airspace and Safety Assessments, 2025, p. 7.

[10] - International Federation of Air Traffic Controllers' Associations (IFATCA), Op Cit, 2026, p. 6.

Figure 3: From Sovereignty to Security Enforcement in Airspace Governance



Source: Derived by the author from ICAO operational frameworks and state aircraft engagement protocols.

3.2.1. Arab Legal Scholarship and the Regional Regulatory Context

Arab scholarship generally treats sovereignty over airspace as a settled and fundamental principle of international law, while recognizing that its practical exercise has become more structured because of the cumulative requirements of safe air navigation and systematic international coordination. This perspective transcends the false choice between absolute isolation and indiscriminate liberalization of airspace.[11]

Arabic legal sources note that the state exercises full sovereignty over the airspace above its land territory and territorial waters, that this principle was progressively codified beginning in 1919 and consolidated in the Chicago Convention of 1944, and that regional air transport arrangements in the Arab world remain anchored in the Chicago framework as their common legal reference.The regional implication is that Arab states already possess a solid [12] normative foundation, but require deeper operational integration, updated domestic legislation, and strengthened institutional capacity.

3.2.2. Policy Proposals for a Resilient Model of Air Sovereignty

A resilient model of air sovereignty must combine updated legislation, advanced surveillance technology, military preparedness, and integrated civil aviation administration into a single coherent governance system. It must establish clear distinctions between ordinary airspace management, security incidents, and high-risk intrusions involving unmanned or state-affiliated systems.[13]

Research on airspace sovereignty and institutional protection in Arabic legal literature consistently indicates that the effective protection of national airspace depends not only on the assertion of sovereign title in legal texts, but equally on the state's practical capacity to define restricted zones, maintain continuous monitoring, respond proportionately to violations, and communicate decisions transparently within the framework of applicable

[11] -*The Arab Encyclopedia*, Air and Outer Space Law, *The Arab Encyclopedia*, Damascus: Arab Encyclopedia Authority, September 27, 1999, p. 2.

[12] - Khaled Aaddour, Op Cit, p. 268.

[13] -Convention on International Civil Aviation (Chicago Convention), 1944, as amended in 2017, arts. 3, 8, 9.

law.[14] For Arab states, the future of effective air sovereignty lies in building integrated systems of technical surveillance, legal reform, interagency command, and active participation in ICAO governance processes.

Conclusion:

Air sovereignty remains one of the clearest expressions of state territorial authority, but its contemporary significance lies less in abstract exclusivity and more in the quality of organized and effective control. The law still begins from the foundational territorial rule of the Chicago Convention; yet effective sovereignty today depends on a coherent chain of regulation, technical capacity, security coordination, and reliable international communication.

The state that lacks the capability to monitor, classify, and react to airspace activity holds legal sovereignty in a merely formal sense. Conversely, the state that combines legal authority with institutional preparedness transforms air sovereignty into a stable governance framework that serves both security and lawful aviation simultaneously. This study therefore confirms its central hypothesis: air sovereignty is a living composite governance function shaped continuously by legal obligation, risk, technology, and strategic context.

Results:

1. Air sovereignty is legally grounded in the principle of complete and exclusive state authority over national airspace, as codified in Articles 1 and 2 of the Chicago Convention of 1944.
2. The Chicago regime does not diminish sovereignty, but organizes its exercise through coordinated rules of safety, authorization, routing, and aeronautical information.
3. State aircraft, unmanned systems, and restricted areas represent the domains where air sovereignty is exercised in its most direct and sensitive form.
4. The future effectiveness of air sovereignty depends on the integration of legal regulation, air defense, technical surveillance, civil aviation administration, and interagency coordination.

Recommendations:

1. Update domestic air legislation to address unmanned aerial vehicles, hybrid threats, and digital air traffic monitoring in clear, enforceable terms.
2. Strengthen coordination between civil aviation authorities, national defense institutions, customs, law enforcement agencies, and intelligence services.
3. Invest in national systems for aeronautical notification, restricted-zone management, interception procedures, and real-time situational awareness.
4. Promote Arab regional cooperation in legal harmonization, technical data exchange, aeronautical information management, and specialized training on sovereign airspace governance.

[14] -Wissam Issa Rahm, Op Cit, p. 30.

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