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# Swinging Hegemony: The US Space Policy Oscillation and Its Implications for Space Governance

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*A mia nonna, Donna sovrumana, esempio di Valori, Umanità e Rispetto. Tutore della Famiglia, della Casa, della Tradizione e del Nuovo. L'Uomo che sono deve tutto a questa grande Donna, faro della mia vita e ambizione.*

*Al mio Paese, l'Italia, e alla grande Patria comune chiamata Europa. In speranza che si possa costruire un futuro roseo e fruttuoso per la gioventù e i Fratelli e Sorelle europei.*

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## Introduction

The strategic significance of outer space has experienced a profound transformation since its initial conception as a "sanctuary" dedicated to peaceful and scientific purposes. In recent decades, and particularly since the early 2000s, space has progressively evolved into a highly contested and ever-increasing militarised domain, increasingly becoming central to Security, Defence and Military strategies, mainly those of Great Powers and actors such as the European Union (EU).

This transformation has been substantially influenced by the role of the (US) in the last quarter-century and, particularly, by its oscillating approach to space-related matters, swings that have deeply influenced global governance structures and security dynamics in outer space. These shifts are not merely administrative preferences but part of a larger narrative that has securitised space. As noted by different experts, policymakers and scholars, space has moved from being viewed as a peaceful sanctuary, as envisioned in the early stages of space exploration, to being perceived as "contested, congested, and competitive," with clear implications for national security.[1] Indeed, space governance origins have to be traced down to the aftermath of World War II and in President Eisenhower's efforts to limit the proliferation of nuclear weapons, which laid the groundwork for a broader international dialogue on the peaceful use of outer space. This later became a key principle in treaties such as the Outer Space Treaty (OST) of 1967. However, the same concept of "peaceful purposes" as applied to space activities resulted in somewhat misleading interpretations as states have rarely equated "peaceful" with a strict non-military interpretation.

At the heart of these debates is the tension between arms control, as symbolised by the Outer Space Treaty, and the persistent militarisation or, at least, securitisation of space activities, which remain only loosely regulated by international norms.[2] As we stand at the intersection of emerging technological capabilities, particularly in dual-use technologies, and increasing geopolitical tensions following the collapse of bipolarity, new space-faring nations – such as the People's Republic of China (PRC or China), Japan, South Korea, and various private actors – are making the existing legal frameworks and the whole space governance architecture increasingly outdated. In such a context, the narrative of competitive and contested space domain, paired with increasingly blurred boundaries between civil, commercial and military uses, has gained prominence since the 1970s. Therefore,

[1] P.J. Blount, "The Discourse of Space Securitization", in *The Oxford Handbook of Space Security*, ed. Saadia M. Pekkanen and P.J. Blount (Oxford: Oxford University Press, 2024), 61-75, https://doi.org/10.1093/oxfordhb/9780197582671.013.4.

[2] Jessica West, "Arms Control and the Myth of Peaceful Uses in Outer Space", in *The Oxford Handbook of Space Security*, ed. Saadia M. Pekkanen and P.J. Blount (Oxford: Oxford University Press, 2024), 223–247, https://doi.org/10.1093/oxfordhb/9780197582671.013.14:contentReference[oaicite:0]{index=0}

future of space governance, especially regarding proliferation and arms control in this domain, will likely be shaped by how effectively the US navigates these competing pressures.

This thesis addresses the implications of this strategic oscillation through a critical analysis of US space policy from the administration of George W. Bush through the current, ongoing second Trump administration (2001–2026), with a focus on the oscillation that emerged during the last decade during the Trump I and Biden presidencies, seen that they exemplifies a marked oscillation between the two postures in space affairs. By examining narratives and actions underlying these tactics and how they interact with the larger topic of space affairs, it seeks to answer two interrelated research questions: Does the strategic oscillation in US foreign policy, revealed by Stephen Sestanovich, apply to US Space Policy? If so, what have been its consequences for the securitisation of outer space and the stability of international space governance? Furthermore, what are the global consequences of normative instability resulting from this oscillation for international arms control and broader space security?

The author is confident that the topic carries significant relevance for both the academic and policy spectrum, given the ever-increasing relevance of the space sector, both at the civilian and military levels and the offers a novel theoretical and analytical perspectives on Washington's approach to global governance by applying the pendulum theory, developed by Stephen Sestanovich, to the US space policy, also offering insights for further research.[3] While the former ambassador uses this framework to examine American foreign policy, his academic contribution can also be employed to study how successive US presidencies have approached outer space, a domain increasingly shaped by global competition, technological capability, and a low level of international governance. This study, by addressing the first question, aims to determine whether the oscillatory framework proposed by Sestanovich can be applied and empirically observed in the space domain, thereby trying to offer a novel perspective on the development of the US space policy and validating the theory's analytical relevance beyond traditional foreign policy arenas. Secondly, once the pendulum dynamic is demonstrated, answering the second question will permit us to study and analyse how these fluctuations have impacted the international normative architecture and the broader space governance, also resulting in crucial implications from the policy standpoint, not only for the Americans.

The primary hypothesis guiding this research is that the US policy pendulum between maximalism and retrenchment plays a pivotal role in undermining the coherence and stability of the

[3] Stephen Sestanovich, *Maximalist: America in the World from Truman to Obama* (New York: Alfred A. Knopf, 2014).

international normative order in space governance by exacerbating fragmentation, undermining international trust in the US, intended as a major norm maker of the international system, and accelerating the securitisation of space. Doing so, a major hypothesis emerges, i.e., those shifts in the US posture are fostering a fragmented and increasingly multipolar normative environment, where the erosion of sustained leadership by the US contributes to legal pluralism, contested norms, and intensified competition among major space powers. This dynamic, while rooted in domestic strategic recalibrations, has profound consequences for the securitisation of space and for the future of arms control and global governance in this critical domain.

To operationalise this analysis, the thesis employs a qualitative, comparative policy analysis grounded primarily in Stephen Sestanovich's "pendulum theory," as articulated in "Maximalist: America in the World from Truman to Obama."[4] Although Sestanovich does not explicitly operationalise the criteria for identifying strategic cycles, this research proposes four analytical indicators: (1) the level of unilateralism versus multilateral engagement; (2) rhetorical framing of space; (3) institutional innovations; and (4) attitudes towards arms control and international norms.

Additionally, while not serving as a primary theoretical framework, this research employs the securitisation theory, as conceptualised by the Copenhagen School, as a supplementary interpretative tool to identify discursive indicators of strategic posture, particularly within the first analytical criterion, also making clear why and how sources have been selected. Moreover, the securitisation theory facilitates the understanding of how US presidents, who may act as primary securitising actors, use strategic policies, official declarations, and doctrinal documents as speech acts to frame outer space increasingly as a security concern, thus framing the space ever more as a strategic arena rather than a sanctuary. Therefore, the conceptual framing of this thesis reflects the dual nature of outer space as a global common, i.e., a domain in which international cooperation is essential, but the use of its resource make it adversarial; and as strategic domain, where the positioning, the exploitation of exogeography and space technologies play a pivotal role in the global order. However, this dual nature complicates governance efforts, particularly under conditions of normative instability fostered by oscillating US strategic postures, undermining the historical role of the US as the norm maker of the international system.

Methodologically, this research applies comparative analysis across multiple US administrations, mainly focusing on the Trump I and Biden presidencies. Each presidency is analysed through pre-electoral rhetoric and platforms, early executive initiatives, approaches to international

[4] *Ibidem*

partnerships with traditional allies and emerging space powers, and attitudes towards international norms and arms control mechanisms.

In this thesis, the United States was selected as the principal case study due to its unique status as both a technological leader and a normative power in space affairs. Unlike other actors such as China and Russia, which often position themselves in opposition to US-led initiatives, the United States exerts – or it has exerted – disproportionate influence over the evolution of international norms, commercial practices, and security doctrines. Moreover, the role of the US in space activities has exponentially grown due to the increased role of the American private sector in the satellite and imagery sector, communication and launch vectors and the whole space economy universe. This makes it a critical variable in understanding both the consolidation and fragmentation of space governance, as well as the role that the US might play in setting the standards for the future of the "Last frontier", its militarisation and the overall conceptualisation and securitisation of outer space.

To conclude, the thesis is structured into three main parts and is detailed as follows. Part I lays theoretical and normative foundations of outer space, not only by reviewing the historical evolution of space governance, but also by defining the analytical framework, the methodology employed and the theoretical foundation of the dissertation. Part II tries to apply the defined framework to empirical cases, examining maximalist and retrenchment cycles in US space policy in the last quarter century, only after having briefly delved into US space policy and the evolution of peaceful purposes. Finally, Part III assesses the broader implications of these strategic oscillations for international space governance, analysing normative instability and global responses from major geopolitical actors such as China, Russia, and the European Union, trying to assess if the US is a "force for good" in space. In sum, this study is trying to elucidate how the cyclical nature of US strategic orientations influences both securitisation processes and the normative structures underpinning international governance in outer space, also trying to delve into the current complex geopolitical scenario and provide insight into the 21$^{st}$ century's increasingly contested orbital domain.

## Chapter 1 – Defining the Theory, Method and the Research

### 1.1 - Literature review

The concept of securitisation, as developed by the Copenhagen School, with the main contribution made by Barry Buzan and Ole Wæver, provides a theoretical lens for understanding how issues, like outer space, become framed as matters of security. In their 1998 seminal work, *Security: A New Framework for Analysis*, Buzan and Jaap de Wilde define securitisation as a process driven by speech acts: by declaring something an existential threat, a political actor moves the issue out of normal politics and justifies extraordinary measures.[5] In other words, security is not an objective condition but a discursive construction through which an issue becomes a security issue only if someone with authority says it is, and a relevant audience accepts it as such. This approach challenges traditional realist views of security by showing how threats are "socially constructed" through language and politics rather than merely given by material conditions. A classic example is how terrorism was securitised post-9/11: despite causing fewer deaths than car accidents, it was depicted as an existential threat, leading to emergency responses, such as the infamous War on Terror and increased surveillance, beyond normal policy bounds. Securitisation theory thus highlights the power of rhetoric in elevating an issue to the security realm, with implications that normal rules and norms can be suspended once an issue is "securitised", also risking creating self-fulfilling prophecies like the security dilemma, wherein one state's defensive moves (justified as necessary for security) appear threatening to others and prompt counter-measures. Applying this framework allows scholars to critically assess whether portraying something as a dire security threat is warranted or if it might itself provoke instability.

Within the literature, outer space has increasingly been examined through the prism of securitisation. Early space activities were couched in the language of peaceful exploration, but recent decades saw a shift toward framing space as a strategic and military domain. Scholars such as Natalie Bormann and Michael Sheehan were among the first to apply critical security studies to space, highlighting how portrayals of space activity connect to earthly security practices.[6] They and others note that describing space as "congested, contested, and competitive", a phrase that has become common in, but not limited to, US security discourse, signals a move to securitise the domain, thus justifying extreme actions or approaches. P. J. Blount explicitly examines "the discourse of space securitisation," showing how the US and other narratives increasingly cast space as a realm of

[5] Barry Buzam, Ole Wæver and Jaap de Wilde. *Security: A New Framework for Analysis.* (Boulder, CO: Lynne Rienner Publishers, 1998).
[6] Natalie Bormann and Michael Sheehan, eds., *Securing Outer Space* (London: Routledge, 2009).

potential conflict rather than purely cooperation.[7] For example, US defence officials now routinely speak of space as a warfighting theatre, as evident in statements like the declaration made by the former Vice President Mike Pence, in which he stated that *"Space is a warfighting domain, just like the land, air and sea… And America will be as dominant there as we are here on Earth."*[8] Such language exemplifies securitisation in action: it constructs outer space as an arena of rivalry and danger, requiring military preparedness and dominance. Blount and other scholars argue that this securitising move has important effects – it can normalise military budgets and tests, justify new steps towards militarisation and sideline arms control efforts under the premise of national survival imperatives.[9] At the same time, authors note the possibility of desecuritisation – reversing this trend by framing space as normal or benign. For instance, emphasising space as a global commons or domain of commerce and scientific cooperation can be seen as a deliberate desecuritising narrative. The push and pull between these narratives is a directly relevant theme to this thesis: understanding how US policy discourse securitises or desecuritizes outer space helps identify the oscillations in its strategic posture and the prospects for cooperative governance versus arms racing.

A second body of literature relevant to this study is the analysis of cyclical shifts in US grand strategy – often described as a pendulum swinging between engagement and retrenchment, or between activism and restraint. The key reference here is Stephen Sestanovich's "Maximalist" thesis. In his historical analysis of US foreign policy, Sestanovich observes that American strategy has never been a steady, consensual grand design; rather, it alternates between two extremes. Periods of aggressive, expansionist or risk-tolerant policy, defined by the author as "maximalism", are followed by periods of pullback and caution, or retrenchment. For example, the exuberant containment and arms buildup under Truman, Kennedy/Johnson, or Reagan were followed by more restrained phases under Eisenhower, Nixon/Ford, or Carter, respectively. Sestanovich argues this pendulum is driven by a sort of strategic fatigue: when one approach overshoots (overextension in wars or military spending), domestic and strategic pressures prompt a swing the other way. Notably, retrenchment is not isolationism, as scholars like Joseph Nye emphasise, but rather a recalibration of goals and means, though domestic politics frequently mislabel retrenchment as "isolationism" for partisan effect.[10]

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[7] Blount, "Discourse of Space Securitization," 61–75..
[8] Jim Garamone, "Pence, Shanahan Detail Progress Made in Space Force", in *U.S. Department of Defense.* October 24, 2018. *https://www.defense.gov/News/News-Stories/Article/Article/1671637/pence-shanahan-detail-progress-made-in-space-force/#:~:text=VIRIN%3A%20181023*
[9] *Ibidem*
[10] Joseph S. Nye, "Which Way for US Foreign Policy?", in *Project Syndicate*, October 12, 2015. https://www.project-syndicate.org/commentary/three-questions-for-us-foreign-policy-by-joseph-s--nye-2015-10
Joseph S. Nye, "Is America Reverting to Isolationism?", in *Project Syndicate*, September 4, 2023. https://www.project-syndicate.org/commentary/us-republicans-dangerous-isolationism-by-joseph-s-nye-2023-09

The relevance of strategic oscillation to outer space governance becomes apparent when we consider that space policy is a subset of foreign/security policy. Yet, relatively few studies explicitly connect Sestanovich's pendulum to US space policy. This represents a notable gap: we know US space strategy has seen assertive phases and cooperative phases, but the literature hasn't fully theorised these shifts in the context of the broader foreign policy cycle. Some historical accounts do implicitly note oscillation. For example, Joan Johnson-Freese and James Clay Moltz have each described how US space policy initiatives waxed and waned with changing administrations and threat perceptions. Moltz, in particular, chronicles the "strategic restraint" exhibited in certain eras versus periods of military push, framing it as a deliberate pursuit of national interest, coupled with a mutual understanding between the then Cold War-era superpowers, that sometimes favoured restraint over dominance.[11] What remains underdeveloped is a broader theoretical conceptualisation of the 25-year US space policy pendulum through Sestanovich's theory. This thesis will build on Sestanovich's insight, proposing that US outer space policy indeed follows a pendulum of securitisation vs. normalisation, following the logic of maximalism vs retrenchment, and will examine the consequences of those swings on international space norms. By doing so, it fills an analytical gap between general foreign policy theory and the specifics of space governance scholarship.

US strategic oscillations do not occur in a vacuum – they directly affect and are affected by the broader governance regime of outer space, including treaties, multilateral negotiations, and emerging norms. This section reviews the state of international space law and arms control efforts, highlighting normative gaps and the impact of great power policies, especially the US, on the stability of those norms. The foundation of space governance is the 1967 Outer Space Treaty (OST), the landmark agreement that established space as a domain to be used for "peaceful purposes" and for the benefit of all countries. The OST's key arms control provision, in Article IV, prohibits the placement of nuclear weapons or any other weapons of mass destruction in orbit or on celestial bodies.[12] However, the OST did not explicitly ban conventional weapons or anti-satellite (ASAT) systems, nor did it clearly define "peaceful purposes," leaving significant interpretative ambiguity and indeed the term has been interpreted in a way that allows military satellites as long as they are non-aggressive.[13] As P.J. Blount points out, although the term "peaceful purposes" lacks a precise legal or political definition, it is generally associated with principles of communication and

[11] James Clay Moltz, *The Politics of Space Security*, (Stanford: Stanford University Press, 2019).
[12] *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies* (Outer Space Treaty), Article IV, paragraph 2, opened for signature January 27, 1967, 610 U.N.T.S. 205.
[13] Ivan A. Vlasic, "The Legal Aspects of Peaceful and Non-Peaceful Uses of Outer Space", in *Peaceful and Non-Peaceful Uses of Space*, ed. Bhupendra Jasani (New York: Taylor & Francis, 1991), 37–55.

cooperation.[14] These loopholes have long been recognised as normative gaps in the regime. As space activities expanded and military reliance on satellites grew, many states became concerned that the OST's prohibitions were too narrow to prevent an arms race in space.

Efforts to address these gaps began as early as the 1980s and intensified in the 2000s under the banner of the *Prevention of an Arms Race in Outer Space* (PAROS) initiative within the United Nations Conference on Disarmament (CD) and the UN General Assembly. An overwhelming majority of states – both allies and rivals of the US – have repeatedly affirmed that preventing the weaponisation of space is an urgent international goal.[15] They argue, following the technological determinism described by Moltz, that without new constraints, technological advances will lead to space weapons deployment, which in turn could spark crisis instability and undermine all existing arms control.[16] However, negotiations consistently faced diplomatic deadlock due to divergent strategic interests, particularly those of major space-faring powers like the US, Russia, and China. A prominent example is the proposed Russia-China Treaty on the Prevention of the Placement of Weapons in Outer Space (PPWT), which sought a comprehensive ban on orbital weapons, which has been rejected by the US citing definitional ambiguities, insufficient verification mechanism (as required by the 2010 US National Space Policy) and concerns about constrains on national security capabilities, including missile defence and ASAT technologies.[17]

The absence of binding arms control has not meant the absence of an arms competition. Analysts often point to a *de facto* arms race already underway in slow motion.[18] After the Cold War, there was a lull in destructive testing until China's 2007 direct-ascent ASAT missile test, which shattered a satellite in orbit, creating a massive debris cloud and breaking the US-Russia duopoly over space. This was soon followed by the US 2008 intercept of a failing satellite, using a ship-based SM-3 missile, which the US portrayed as a one-time emergency action, but demonstrated similar

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[14] P.J. Blount, "Innovating the Law: Fifty Years of the Outer Space Treaty", in *Innovation in Outer Space: International and African Legal Perspective*, ed. Mahulena Hofmann and P.J. Blount (Baden-Baden: Nomos Verlagsgesellschaft mbH & Co. KG, 2018), 31–52.

[15] , "PAROS Treaty", *Nuclear Threat Initiative,* https://www.nti.org/education-center/treaties-and-regimes/proposed-prevention-arms-race-space-paros-treaty/

[16] James Clay Moltz, *The Politics of Space Security*, (Stanford: Stanford University Press, 2019).

[17] Jeff Foust, "U.S. Dismisses Space Weapons Treaty Proposal As "Fundamentally Flawed", in *SpaceNews*, September 11, 2014. https://spacenews.com/41842us-dismisses-space-weapons-treaty-proposal-as-fundamentally-flawed/
For more information, refer to:
Pavel Podvig and Hui Zhang, "Chinese Perspective on Space Weapons", in *Russian and Chinese Responses to U.S. Military Plans in Space*, Chapter 2, (Cambridge, MA: American Academy of Arts & Sciences, January 2008) https://www.amacad.org/publication/russian-and-chinese-responses-us-military-plans-space
Brian G. Chow, "Space Arms Control: A Hybrid Approach," *Strategic Studies Quarterly* 12, no. 2 (Summer 2018): 125–149.
James Clay Moltz, *The Politics of Space Security*, (Stanford: Stanford University Press, 2019) 107-132.

[18] "SWF's Rite of Spring: Global Counterspace Capabilities Report Released", *Secure World Foundation*, April 11, 2024. https://www.swfound.org/news/insight----swfs-rite-of-spring-global-counterspace-capabilities-report-released

capabilities. Since then, India joined the club with a 2019 kinetic ASAT test, and Russia has tested direct-ascent ASATs multiple times, most notably destroying a satellite in 2021. These events underscore that the arms control gap in space is real – more states are acquiring the capability to target satellites, yet there are no treaties beyond the OST's narrow WMD ban to restrain this. As the Chinese Ambassador Hu Xiaodi stated, the weaponisation of space:

> *"will disrupt strategic balance and stability, undermine international security, and disrupt existing arms control instrument* […] *inevitably leading to a new arms race."*[19]

The cascading effect could extend to nuclear deterrence and other domains, since anti-satellite weapons threaten the satellites that provide early warning and command-and-control for nuclear forces.[20] In short, the current trajectory risks eroding not just space security but also broader strategic stability.[21]

Despite the challenges described above, the International community has made some normative advancements, mostly incremental, through non-binding "soft law" measures and confidence-building initiatives, particularly during periods of cooperative US leadership. Examples include the European Union-led International Code of Conduct (ICoC) proposal and the UN Committee on Peaceful Uses of Outer Space's (COPUOS) Long-Term Sustainability (LTS) Guidelines adopted in 2019, which addressed technical and operational practices aimed at space debris mitigation and collision avoidance. The most recent Biden administration's unilateral moratorium on destructive ASAT testing, announced in 2022, adds more literature on the role of ASAT testing and the US stewardship in avoiding space weaponisation, also sparking renewed multilateral engagement, although some criticism by other major space powers like China and Russia, which have not joined the moratorium due to their preference for a treaty-based approach.[22]

By discussing the above-mentioned initiatives, paired with their failures and other attempts to set new norms and rules, it appears clear that a persistent tension exists between formal arms control initiatives and voluntary normative commitments, and this same tension mirrors deeper geopolitical competition and regime complexity that has been developed in the last quarter-century. In this regard,

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[19] Hu Xiaodi, *Statement by Ambassador Hu Xiaodi at the Plenary of the 2nd Part of the 2005 Session of the Conference on Disarmament*, June 30, 2005.
[20] Nancy W. Gallagher and Jaganath Sankaran, *Minimizing the Negative Effects of Advances in Military-Relevant Space Capabilities on Strategic Stability* (Cambridge, MA: American Academy of Arts & Sciences, 2023)
[21] Podvig and Zhang, "Chinese Perspective on Space Weapons."
[22] Jeremy Grunert, *The United States Space Force and The Future of American Space Policy. Legal and Policy Implications* (United States: Brill | Nijhoff 2022), 118
Blount, "The Discourse of Space Securitization" 61-75

the literature proves helpful by identifying critical gaps in international governance. First, the absence of comprehensive, binding agreements regulating conventional weaponisation and aggressive activities in space, and secondly, the challenge posed by inconsistent US policy oscillations between maximalist and retrenchment postures. Indeed, Blount argues that both US leadership and its will to coordinate are crucial in space security law and if the US policy swings too far towards militarisation, it may legitimise other states' weaponisation efforts, each claiming security imperatives, thereby validating the very race they seek to prevent.[23] The literature, in particular Brian G. Chow, also reveals a consensus that new approaches are needed to bridge the gap, such as hybrid arrangements that combine voluntary measures with the long-term goal of a verified treaty once technical definitional issues are resolved.[24] This study aims to advance both academic understanding and practical policy discourse aimed at preserving the security and sustainability of the orbital domain by systematically examining how oscillating US policies impact global arms control efforts and the securitisation of outer space.

### 1.2 - Theoretical Framework

Stephen Sestanovich's "pendulum theory" provides a lens to interpret the cyclical shifts in a state's grand strategy between periods of activist expansion and strategic restraint. In his analysis of US foreign policy from the Cold War through the post-9/11 era, Sestanovich observes an oscillation between "maximalist" and "retrenchment" phases, which he characterises as the "school of more and the school of less".[25] *Maximalist* periods are those in which leaders pursue ambitious, expansive engagement abroad by projecting power, increasing military commitments, and taking on assertive international roles. By contrast, *retrenchment* periods involve deliberate pullbacks, shown by reduced overseas commitments, curtailed military expenditures, and the adoption of a more cautious, limited posture in world affairs. Sestanovich's work shows how US foreign policy oscillated between phases of retrenchment, intended as corrective responses to perceived overreach or costs of the preceding maximalist phase and where maximalist phases regain force by the perceived inertia of the previous swing, thus demonstrating a continuous oscillation between the two extremes. Sestanovich points out how these shifts are not random but arise from strategic reappraisals, as retrenchment often follows protracted, frustrating conflicts such as the Vietnam or the Iraqi war, that sap domestic support and resources, citing rationals such as economic constraints, public fatigue with interventionism, and the need to "prioritise domestic problems" over foreign adventures. However, periods of retrenchment eventually give way to renewed activism once critics charge that excessive restraint is undermining

[23] *Ibidem*
[24] Chow, "Space Arms Control: A Hybrid Approach", 107-132.
[25] Sestanovich, *Maximalist: America in the World from Truman to Obama*, Ebook version. location 6128 of 7941

national interests or credibility, positioning the US in a weak position to negotiate a better deal. This dynamic, as presented by Sestanovich's work, shows that maximalist and retrenchment strategies alternate over time, albeit in modified forms that incorporate lessons learned from past mistakes. Sestanovich's pendulum theory thus offers a structured way to understand foreign policy change as a cyclical pattern of overreach and recalibration, allowing this thesis's author to apply the same theory to the study of American outer space policy. By identifying whether a given administration's space strategy is in a "maximalist" (expansive, confrontational) or "retrenchment" (restrained, cooperative) mode, we gain insight into the broader objectives guiding its conduct in space.

To complement the structural lens above, securitisation theory is employed as a conceptual tool to analyse how issues are framed as security threats through discourse. Originating from the Copenhagen School in International Relations, securitisation theory posits that security is a social construct: an issue becomes a security matter not necessarily because of an objective material threat, but because key actors portray it as an existential threat that demands extraordinary handling.[26] The core mechanism of securitisation is the speech act: by uttering a declaration of security, for example, a leader's pronouncement that a particular development is a grave danger, the actor attempts to transform that issue from the realm of normal politics into the realm of security urgency.[27] As Ole Wæver famously put it, *"by saying the words, something is done"* – labelling an issue a security threat is an act that constitutes a new reality.[28] These legitimising measures would otherwise be out of bounds. In this framework, a securitising actor, who must be one with an authority, typically a political leader or a government official, performs the speech act, declaring that a given referent object (in this thesis, the outer space and the broader orbit domain) faces an existential threat. If the relevant audience accepts this claim, in other words, believes in the seriousness of the issue, the issue becomes "securitised", meaning extraordinary actions are now seen as legitimate to counter the threat.

In sum, securitisation theory serves as a diagnostic indicator to identify and characterise strategic orientation as defined by the pendulum period. Thus, the Copenhagen School's theory is not employed as an independent causal explanation. Rather, it is exploited as evidence of a swing in US strategic posture, whether it is maximalist or retrenched, which provides this study with a means to dissect the rhetorical and ideational dimension of policy, examining how and why policymakers construct outer space either as a normal policy issue or elevate it to a critical security priority through

[26] Buzan, Wæver and de Wilde. *Security: A New Framework for Analysis.*
For more information on the debate on the Securitisation Theory refer to:
Ronnie D. Lipschutz, *On Security*, (Columbia: Columbia University Press, 1995)
[27] Ole Wæver, "Security, the Speech Act – Working paper", presented at the Research Training Seminar, 2nd draft 1989.
[28] Ole Wæver, "Securitization and Desecuritization", in *On Security*, ed. Ronnie D. Lipschutz, chapter 3. (Columbia: Columbia University Press, 1995)

language. In other words, the broader framework of the "Theory of Securitisation" is used to justify how sources have been selected and to understand the oscillation between maximalism and retrenchment better.

Although Sestanovich's pendulum theory and securitisation theory originate from different analytical traditions – one focusing on grand strategy patterns and the other on discourse and social construction – they are highly compatible and mutually reinforcing for this study. Together, they offer a dual lens that captures both actions, i.e., the policy development, and narrative, i.e. the rhetoric that underlies the space sector reforms, in the evolution of space policy. While the pendulum model sets expectations on how Administrations will behave at the macro level by examining the historical pattern of US space policy, the utilisation of the securitisation theory highlights the mechanism through which these oscillations are proceeded and accompanied. In practice, a maximalist turn is frequently preceded or enabled by successful securitisation, allowing for an expansive, risk-taking policy response. Conversely, a move towards retrenchment may involve a degree of "desecuritisation", as described by Ole Wæver in "On Security", downplaying threats or re-framing the issue as manageable through normal politics and international cooperation, thus justifying restraint.[29]

By combining these frameworks, the analysis can connect the content of policy discourse with the substance of policy behaviour, or, in other words, why strategic oscillation occurs (Sestanovich) and how these oscillations manifest discursively (Copenhagen School). Specifically, we can examine whether periods of heightened space activity coincided with intense threat rhetoric about space, as one would expect if securitisation is fuelling a maximalist swing. On the other hand, during retrenchment swings, one might expect a cooperative posture in which the space is described as a sanctuary or, at least, as a place of cooperation and a scientific domain.

Central to applying these theories is an appreciation of the dual character of outer space in international politics. Since the dawn of the Space Age, outer space has been viewed as a *global common* – a realm beyond national jurisdiction that is open to use by all and meant to be shared for the benefit of humanity. For instance, the 1967 Outer Space Treaty declares that space shall be the "province of all mankind," not subject to national appropriation, emphasising cooperation, scientific exploration, and the common interest of all states. At the same time, however, space has increasingly been seen as a strategic domain – a theatre for power projection and national defence, akin to land,

[29] Wæver, "Securitization and Desecuritization",

sea, air, and cyber.[30] In this perspective, space is regarded as critical to national security due to satellites' role in communication, surveillance, navigation, and targeting, and thus as a potential arena of competition or even conflict among great powers. On one hand, many states and scholars urge that outer space remain a peaceful commons governed by international norms; on the other, military officials now routinely refer to space as a "warfighting domain" and have undertaken preparations for possible space conflict.[31] This dichotomy of narratives – space-as-common-heritage vs. space-as-battleground – makes outer space an ideal subject for securitisation analysis. Declaring outer space to be an arena of military rivalry is fundamentally a securitising move: it frames the realm as threatened and justifies extraordinary measures. The theoretical framework adopted here explicitly recognises this duality. It posits that the way policymakers conceptualise outer space (commons vs. strategic domain) will indicate whether their policies tend towards retrenchment or maximalism. A leadership that securitises space – depicting it as a contested military domain under imminent threat – is likely to embark on a maximalist course. Conversely, a leadership that emphasises space's global commons aspect will align with a more restrained or cooperative strategy, akin to retrenchment in Sestanovich's terms. Thus, understanding the double nature of space is crucial: it not only contextualises why securitisation may occur but also helps link the discursive element of securitisation to the material patterns described by the pendulum theory. This combined lens will guide the subsequent analysis of space policy shifts.

### 1.3 - Methodology and Criteria Operationalisation

This section explains how Sestanovich's pendulum theory and securitisation theory are translated into concrete indicators and research strategies, enabling a systematic examination of outer space policy under the chosen framework. To identify whether a given period or policy in outer space affairs corresponds to a retrenchment or maximalist posture, the analysis uses four key indicators. Despite Sestanovich not providing any criteria that would help in defining those oscillations, the subsequent four indicators are derived from the features highlighted in pendulum theory and related literature, also considering the domain in which the thesis is trying to delve.

1. Rhetorical framing of space – As the securitisation theory works as a supplementary interpretative tool, this indicator allows the thesis to delve into how US policymakers articulate space and related matters. By doing so, the analysis will observe whether the space is framed as an arena of strategic competition or as a domain of peaceful cooperation and

[30] Saadia M. Pekkanen, "Introduction", in *The Oxford Handbook of Space Security*, edited by Saadia M. Pekkanen and P. J. Blount, (Oxford: Oxford University Press, 2024) https://doi.org/10.1093/oxfordhb/9780197582671.013.4.
United States Space Command, Vision for 2020 (Peterson Air Force Base, CO: U.S. Space Command, 1997)
[31] West, "Arms Control and the Myth of Peaceful Uses in Outer Space", 223–247

shared global interests. By logic, a maximalist posture will typically frame space as a matter of national security in which the State needs to do more and better – recalling Sestanovich's concept of the "school of more" – also pointing at the potential threats from or to the space domain. On the contrary, it is logical to expect an alignment with deliberate efforts to frame outer space through cooperative language during retrenched periods, where administrations will emphasise concepts such as sustainability, the pivotal role of international norms in maintaining a predictable and stable world, as well as the crucial role of peaceful use in the interest of humankind. Analysis of the selected sources, as previously stated, such as official speeches, national strategies, congressional testimonies, and presidential directives, will provide evidence of such framing, highlighting the shift from maximalism to retrenchment and vice versa.

2. Institutional innovations – This indicator will take into consideration the institutional developments and reorganisations within the US space sector, as intended to be indicative of strategic intent within the specific Administration. As it might be obvious, maximalist orientations often involve substantial institutional innovations aimed at reinforcing national security posture, such as the creation or reform of dedicated military commands, increased prioritisation of military capabilities and a lascivious attitude towards those institutions considered to be marginal or multilateral. On the contrary, retrenchment phases may involve consolidation or restrained institutional innovation, as well as a reinforcement of civilian and multilateral bodies with a diminished focus on overt military objectives. Tracking and interpreting these institutional and organisational changes permits understanding the increased focus on some aspects rather than others, also focusing on what kind of reforms have been enacted in the same organisation.

3. Level of unilateralism versus multilateral engagement – This indicator will capture the strategic orientation of US space policy by examining the posture, the approach and the extent of unilateral actions or multilateral cooperation in the space sector. However, this indicator will take into consideration not only official documents and initiatives, but also the narrative and the overall approach towards multilateral and international cooperation. During the strategic oscillation that we are taking into discussion, a maximalist posture will typically manifest as preferences of unilateral initiatives, emphasising national autonomy and the need for dominance or, at least, the existential need for the freedom of action, which could be coupled with the rejection of new binding agreements and the promotion of initiatives concerning like-minded nations. On the other hand, retrenchment may be characterised by

increased emphasis on multilateral engagement, diplomatic initiatives and an active presence and participation in international fora, looking for consensus-based governance structures, also considering the option to sign binding agreements and other treaty-form accords. This indicator will be assessed by considering the narrative, the official documents, the promoted initiative and the overall approach towards the global community by each presidency discussed in the thesis.

4. Attitudes towards Arms Control and International Norms – This last indicator will be used to measure the oscillation of US space policy and its strategic orientation and attitude towards space matters when discussed in relation to arms control. While maximalist phases demonstrate a clear reluctance or opposition towards new international arms control agreements, a retrenchment phase may display greater openness and active engagement in arms control initiatives or binding normative frameworks under treaty-form accords. This indicator will be assessed by analysing official policies, voting patterns in international institutions, as well as treaty negotiations and diplomatic communications that will show a posture or approach toward this matter.

All four indicators above are applied systematically in the empirical chapters to identify and categorise each administration's space policy orientation and its strategic posture in outer space. By examining pre-electoral discourses, declarations, policy documents, international engagements, and doctrinal language, the study can triangulate whether the evidence points to a downsizing, cautious approach or an assertive, expansionist one, respectively identified in the retrenched or maximalist swing. Notably, these criteria are interrelated and often move in concert, thus reinforcing one another: for example, an institutional reform (or innovation) is usually accompanied by a previous rhetoric that emphasises the urgency of such reform. Furthermore, it is clear that a stance against binding agreements and the preference for a like-minded approach is usually accompanied by a strong refusal of any arms control initiative. In line with Sestanovich's model, we expect these elements to cluster together during particular periods.

In addition to the four indicators, and as previously stated, the theoretical lens of securitisation is employed to interpret how outer space has been framed as a security issue across different US administrations. It is important to state that this research does not conduct a full-fledged discourse analysis; however, securitisation theory serves as a complementary interpretive tool to better understand the rhetorical and institutional logic underpinning both the maximalist and the retrenched strategic posture. To this end, the first indicator, namely the rhetorical framing of space, specifically captures the degree of securitising language employed by decision-makers both before and after the

election, with examples spanning from referencing space as a "warfighting domain" to statements about adversarial threats to US space assets, or calls to secure "space superiority." Indeed, although the current analysis will not delve into discourse analysis or a broader study on the securitisation of space, it is clear how both securitisation and desecuritisation efforts accompanied maximalist and retrenched postures. In this sense, securitising rhetoric is assessed not as an end in itself but as an explanatory mechanism supporting the strategic shifts captured by the other indicators, operating as a meta-indicator that helps explain why certain policies are adopted and legitimised.

### 1.4 - Research Design

The research focuses on the United States as a single-country case study, considering the influence that it exerts – and it has exerted – in shaping the global governance and the broader international order. Thus, in this thesis, the US is considered the most influential actor in the space domain, although the role of other major actors is taken into consideration. Within this case study, the empirical focus spans almost 25 years, or five presidential administrations from 2001 to 2026. This timeframe has been selected for both theoretical and empirical reasons. From the theoretical point of view, both Sestanovich's research on US foreign policy and Moltz's analysis of US Space policy stop their discussion during the Obama presidency. By doing so, this thesis can move its first steps starting from these authors' reflections and move toward a deeper and more contemporary analysis of the US space policy and its oscillation during the Trump I and Biden presidencies. From the empirical standpoint, particular analytical attention is devoted to the Trump I and Biden presidencies, as they offer the most pronounced contrast in terms of strategic oscillation between maximalism and retrenchment. Thus, while Bush and Obama will be briefly analysed as a basis for a broader discussion, the following presidencies will be the core of the research.

As anticipated in the discussion, the research employs qualitative, comparative policy analysis grounded in a structured and focused comparison approach by applying the four indicators previously described, analysing each administration in terms of its strategic posture. Each presidency is analysed through pre-electoral rhetoric and platforms, early executive initiatives, approaches to international partnerships with traditional allies and emerging space powers, and attitudes towards international norms and arms control mechanisms. Primary sources include National Space Policies, Executive Orders, presidential directives, official strategies such as the "United States Space Priorities Framework," and "A Strategic Framework for Space Diplomacy." Declarations during electoral campaigns, interviews, and speeches during various events are also taken into consideration. In particular, primary sources are considered the main sources upon which the thesis is constructed, understood as main tools to frame the securitised object – the outer space – within the context of

securitisation theory. However, secondary sources are also employed and are considered particularly useful in understanding how both scholars and the broader public opinion perceive the securitisation of the space domain or are intertwined with the oscillation In such a context, the most authoritative sources comprise scholarly analyses, institutional reports, and expert commentaries, comprising those written or given by former or current advisors to any presidency.

This thesis acknowledges its own limits inherent to the binary approach that underpins the pendulum theory and the qualitative case study. Part of the topic is discussed through an analysis of previous administrations, which may not be an extremely accurate analysis tool. Although useful for predicting general trends and particular features of the next administration, it is not possible to express with certainty that the next presidency will follow the oscillation of the pendulum described above. Moreover, the paper does not consider, except superficially and with the limited purpose of analysis, the growing competition between the United States and China, a constant restraint on federal budgets, climate change, which could impact the space agenda, and the climate of global mistrust triggered by recent war theatres. Still, this work could be a useful tool for understanding possible outcomes and a different perspective on imaging the future of global space governance in the coming decades.

## Chapter 2 - The Pendulum Period of US Space Policy

### 2.1 – Introduction

This chapter marks the beginning of the empirical analysis and provides a systematic examination of the evolution of US space policy in the last 25-year span, mainly focusing on the Trump I and Biden administrations, through the lens of strategic oscillation. The chapter opens with a historical and conceptual contextualization of the "peaceful purposes" principle. This section is particularly useful to understand the gradual securitisation of space over the second half of the twentieth century, thus providing the ideational backdrop necessary to interpret subsequent US strategies in space, reflecting deeper structural and doctrinal changes that have redefined space as a contested and strategically vital domain. The analysis draws on the insights of securitisation theory to understand how political actors have framed outer space as a site of potential or actual threat, justifying exceptional measures in the name of national security.

Following this conceptual overview, the chapter moves to the core empirical analysis. Applying the four indicators developed in Chapter 1.3 – rhetorical framing of space, institutional innovations, level of unilateralism vs. multilateral engagement, and attitudes towards arms control and international norms – this section dissects the space policies of the George W. Bush, Obama, Trump I, and Biden administrations. The objective is to determine whether each administration corresponds more closely to a retrenchment or a maximalist posture, as theorised by Sestanovich.

This chapter, which consider both the historical contextualization and the comparative empirical analysis, lay the groundwork for Chapter 4, in which it will be discussed the impact of US behaviour in this last 25 years, also demonstrating that the evolution of US space policy is not simply reactive to technological changes or geopolitical pressures, but part of a broader strategic process.

### 2.2 – Historical Context on Space

#### 2.2.1 – The Ideational Roots of "Peaceful Purposes" (1950s–1960s)

The dual imperatives of national security and international cooperation have long driven the development of US space policy. From the early days of the Cold War to the present, space has evolved from a purely scientific and exploratory domain into a critical theatre for military and strategic operations. The supposed pendulum of US space policy reflects broader geopolitical dynamics and technological advancements that began in the '50s and that have shaped the strategic needs and the behaviour of the US, also shaping and being shaped by each administration and how they navigated the increasingly complex security landscape.

The origins of US space policy are deeply rooted in the aftermath of World War II and in President Eisenhower's efforts to limit the proliferation of nuclear weapons. In his famous 1953 "Atoms for Peace" speech before the United Nations General Assembly (UNGA), President Eisenhower sought to ensure that nuclear capabilities would be used for "peaceful uses".[32] This concept has been paraphrased in the most famous principle, "peaceful purposes", which became a cornerstone of his administration and a guiding framework for subsequent space-related negotiations. Although the Soviet Union rejected the US proposal on nuclear arms, leading to the failure of the Atoms for Peace Initiative (API), the concept itself proved to be highly influential in the following space negotiations.[33]

Indeed, US President Dwight D. Eisenhower, fresh from advocating the benign use of nuclear energy in his 1953 "Atoms for Peace" initiative, sought to apply a similar ethos to the nascent space age, thus laying the groundwork for a broader international dialogue on the peaceful use of outer space. In a January 1958 letter to Soviet Premier Nikolai Bulganin, Eisenhower explicitly proposed that "outer space should be used only for peaceful purposes," warning that both superpowers were testing military missiles in space and that "the time to stop is now."[34] This dialogue, initiated by the US government through Eisenhower's letter to Nikolai Bulganin – echoed by US Ambassador Henry Cabot Lodge, Jr. at the United Nations – allowed the international community, particularly the two superpowers, to establish shared values and principles, reflecting an early idealism about keeping the cosmos free from armed conflict.[35]

These were officially formalised by UNGA Resolution 1348 (XIII), titled "Question of the Peaceful Uses of Outer Space," which also created an ad hoc Committee on the Peaceful Uses of Outer Space (COPUOS).[36]. Resolution 1348 (XIII) represents the first UN General Assembly resolution on space, and every subsequent resolution concerning space has incorporated the terms

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[32] Dwight D. Eisenhower, "Atoms for Peace", speech, United Nations General Assembly, December 8, 1953, https://www.iaea.org/about/history/atoms-for-peace-speech.

[33] F*oreign Relations of the United States, 1958–1960, Volume III, National Security Policy; Arms Control and Disarmament, Microfiche Supplement*. Washington, DC: Office of the Historian, U.S. Department of State, https://history.state.gov/historicaldocuments/frus1958-60v03mSupp/summary

[34] Dwight D. Eisenhower, *Letter to Nikolai Bulganin, Chairman, Council of Ministers, U.S.S.R.*, January 12, 1958, released January 13, 1958, https://www.presidency.ucsb.edu/documents/letter-nikolai-bulganin-chairman-council-ministers-ussr

Walter A. McDougall, "A Space Strategy for the United States" in *The Heavens and the Earth: a Political History of the Space Age.* (Baltimore: Johns Hopkins University Press, 1997), 179

[35] Jeremy Grunert, "The 'Peaceful Use' of Outer space?", in War on the Rocks, June 22, 2021. https://warontherocks.com/2021/06/outer-space-the-peaceful-use-of-a-warfighting-domain/#:~:text=United%20States%2C%20Lodge%20said%2C%20sought,stands%20as%20an%20astonishing%20vision

[36] United Nations General Assembly, *Question of the Peaceful Uses of Outer Space*, A/RES/1348 (XIII), December 13, 1958,https://undocs.org/A/RES/1348(XIII)

"peaceful purposes" or "peaceful uses." One early achievement of COPUOS was the 1963 *Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space*, which recognised the "common interest of all mankind" in the peaceful exploration of space.[37] Although largely aspirational, these developments signalled a conceptual legacy of Eisenhower's vision: the international community formally embraced the notion that space should be a sanctuary from terrestrial conflict, or at least that it ought to be treated as such.

The culminating milestone of this period was the 1967 *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space* – the Outer Space Treaty (OST).[38] The OST's provisions enshrined several of the "peaceful purposes" ideals born in the 1950s. Notably, Article IV of the treaty prohibits the placement of nuclear weapons or other weapons of mass destruction in Earth orbit, and it mandates that the Moon and other celestial bodies be used "exclusively for peaceful purposes."[39] It even forbids the establishment of military bases and fortifications on celestial bodies. At the same time, the treaty's wording reflects a careful compromise between idealism and military reality. Article IV explicitly allows "the use of military personnel for scientific research or any other peaceful purposes" and does not ban the use of "any equipment or facility" needed for peaceful exploration.[40] It also bans military bases and weapons tests on the Moon and other celestial bodies. However, it does not ban conventional weapons in outer space outright, nor anti-satellite (ASAT) weapons testing, nor the transit of ballistic missiles carrying WMD through space. The treaty's drafters left ambiguities – for instance, "peaceful purposes" was not explicitly defined as "non-military," Thus, from a legal standpoint, placing a kinetic kill vehicle or a laser in orbit (if not a WMD) is not illegal under the OST, nor is shooting down a satellite from the ground. In practice, this meant that while outright weapons and combat activities were barred, many military-support functions in space were still permitted under the banner of "peaceful" behaviour. The legal foundations laid by the OST thus codified the principle that outer space should not become a new arena for weapons of mass destruction or territorial conquest, affirming the early vision of space as a global commons dedicated to peace.

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[37] United Nations General Assembly. *Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space*. A/RES/1962(XVIII), December 13, 1963.
[38] *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies* (Outer Space Treaty), opened for signature January 27, 1967, 610 U.N.T.S. 205.
[39] *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies* (Outer Space Treaty), Article IV, paragraph 2, opened for signature January 27, 1967, 610 U.N.T.S. 205.
[40] *Ibidem*

Despite this clear rhetorical commitment to peaceful exploration, there were tensions from the start between the civilian/scientific narrative and the strategic imperatives of the Cold War. The United States deliberately established NASA in 1958 as a civilian agency to emphasise peaceful scientific progress, even as parallel military space programs developed in secret by the DoD and the 1960 top-secret National Reconnaissance Office (NRO).[41] Both superpowers quickly realised that certain military uses of space were not only inevitable but also strategically necessary. For example, Eisenhower's administration came to see reconnaissance satellites as vital for national security, providing transparency and early warning that could stabilise the nuclear balance, and thus something the US could not afford to ignore.[42] Indeed, between 1957 and 1967, the American position on "peaceful" space activities shifted from earnest advocacy of exclusively peaceful exploration to a more nuanced stance that accepted national-security uses of space so long as they were not overtly aggressive.[43] In sum, even during the 1950s-60s heyday of the "peaceful purposes" discourse, a quiet understanding developed in Washington and Moscow that military applications like surveillance, communication, and early-warning satellites were compatible with the peaceful exploration of space. This early contradiction – espousing high-minded cooperation while pursuing military advantages – set the stage for how the peaceful purposes principle would be interpreted in the decades to come.

### 2.2.2 – Interpretive Ambiguity and Strategic Manipulation of "Peaceful Purposes"

From a legal and political perspective, the term "peaceful purposes" was deliberately left ambiguous, allowing states to project their interpretations onto it. The OST itself never defines "peaceful," as a strategic move by the then Great Powers – United States and Soviet Union – to exploit the space in a way that allows them to exploit the space for non-aggressive national interests (i.e., surveillance). Indeed, the prevailing interpretation that emerged, led by the United States, was that "peaceful" really means "non-aggressive" rather than strictly "non-military", thus meaning that military activities in outer space were deemed lawful so long as they were not offensive or intended

[41] Paul Stares, "Eisenhower and the Space Challenge", in *Space Weapons and U.S. Strategy*, 1st edition Re printed (Routledge, 2021).
Walter A. McDougall, "The Birth of NASA" in *The Heavens and the Earth: a Political History of the Space Age.* (Baltimore: Johns Hopkins University Press, 1997)
[42] National Security Council, *NSC 5814/1, U.S. Policy on Outer Space*, October 17, 1958, White House Office, Office of the Special Assistant for National Security Affairs, NSC Series, Policy Papers Subseries, Dwight D. Eisenhower Presidential Library.
Walter A. McDougall, "A Space Strategy for the United States" in *The Heavens and the Earth: a Political History of the Space Age.* (Baltimore: Johns Hopkins University Press, 1997), 180-181
[43] Ibidem p.180-184
James Clay Moltz, "Chapter 4: The Emergence of Cooperative Restraint 1962-1975", in *The Politics of Space Security*, (Stanford: Stanford University Press, 2019), 126

to wreak destruction.[44] US officials made this position explicit during the 1960s: as Senator Albert Gore, explained to the UN in 1962:

> *"Outer space should be used only for peaceful – that is, non-aggressive and beneficial – purposes."*[45]

In other words, the mere involvement of the military or use of defence-related technology did not violate the peaceful purposes principle, provided the purpose was not hostile. This "non-aggressive" interpretation of peaceful use gained broad acceptance and essentially became the *de facto* norm in international space law.[46] It allowed activities such as intelligence-gathering, early warning, satellite navigation, and communications to thrive under the rubric of peaceful endeavors, even though these were integral to military capabilities.

The vagueness of "peaceful purposes" was not an accidental oversight but rather a strategic choice, and states soon learned to manipulate this ambiguity to their advantage, as shown by Walter A. McDougall in his survey of American debate in the 50s.[47] In effect, as long as a space activity could be framed as defensive or civilian, it could be justified as "peaceful." This led to a situation in which both superpowers conducted extensive military operations in space under a nominally peaceful banner. For example, the deployment of spy satellites and military communications networks in orbit, by both the Soviet Union and the United States in the 1960s and 1970s, was rarely condemned as a breach of "peaceful purposes," since these assets were characterised as stabilising or purely informational. This strategic dualism allowed early military uses of space to expand without overtly violating the letter of international law or the spirit of UN resolutions.

The interpretive flexibility of "peaceful purposes" can be understood through the lens of securitisation theory in international relations. In the early space age, political leaders engaged in what might be called deliberate de-securitisation: they framed outer space as an apolitical domain of scientific progress and common interest, seeking to exclude it from the immediate Cold War security dilemma. Labelling space activities "peaceful" was a speech act intended to reassure audiences and reduce the perception of threat. The establishment of treaties and norms – from the Partial Test Ban banning nuclear explosions in space to the OST itself – was part of an effort to embed space in a

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[44] National Security Council, *NSC 5814/1, U.S. Policy on Outer Space*, October 17, 1958, White House Office, Office of the Special Assistant for National Security Affairs, NSC Series, Policy Papers Subseries, Dwight D. Eisenhower Presidential Library.
Blount, "The Discourse of Space Securitization", in *The Oxford Handbook of Space Security*, 61-75,
[45] United Nations General Assembly, *Verbatim Record of the 1289th Meeting of the First Committee*, A/C.1/PV.1289, December 3, 1962, statement by Senator Albert Gore (United States), 10–12.
[46] Vlasic, "The Legal Aspects of Peaceful and Non-Peaceful Uses of Outer Space, 37–55.
[47] McDougall, "A Space Strategy for the United States"

cooperative, rule-bound framework and prevent a worst-case scenario of orbital warfare. Notably, the goal was never to render space entirely *military-free*, but to prevent an uncontrolled arms race in space that could destabilise global security, especially after acknowledging that "deploying and using space weapons would cause them more harm than good."[48] By doing so, statesmen and strategists kept the most risky and dangerous issues off the table, in particular the space weapons development, while tacitly allowing less overt military use to continue, as in the case of satellite reconnaissance. This delicate balance between idealistic rhetoric and pragmatic military utilisation was a hallmark of the space regime's early decades. It also meant that as technology advanced and geopolitical tensions ebbed and flowed, the line between "peaceful" and "non-peaceful" in space would remain fuzzy and contested, open to reinterpretation by each successive generation of policymakers, as the '70s have shown and coherent with the technological determinism described by Moltz.[49]

### 2.2.3 – The Gradual Securitisation of Outer Space (1970s–2000s)

By the 1970s, the strategic landscape of outer space began to shift from the early *détente*-era vision, especially the idealistic one of a tranquil scientific commons, towards an arena viewed in increasingly military terms, explicitly expressed during the Reagan presidency, driven by both technological progress and shifting threat perceptions. The Soviet Union, for instance, developed a co-orbital anti-satellite (ASAT) system by the late 1960s and conducted multiple tests in the 1970s.[50] The United States responded in kind: under President Jimmy Carter, the US pursued its own ASAT capabilities, and under President Ronald Reagan, the idea of active space defence took an enormous leap with the 1983 announcement of the Strategic Defense Initiative (SDI).[51] Although SDI's more exotic space weapon concepts never came to fruition, its spirit reflected the era's changing mindset, framing space as a contested and competitive domain, although not explicitly. By the late Cold War, the notion of space as a peaceful sanctuary had eroded: space was increasingly viewed as the "ultimate high ground" in military strategy, a realm in which superpower conflict *could* extend if deterrence failed. In short, the groundwork was laid by the 1980s for a paradigm in which controlling and defending space became an integral part of national security planning.

The end of the Cold War did little to reverse this trajectory. If anything, the unipolar moment of the 1990s and the revolution in information technology further tied space systems to security calculations. The Gulf War of 1991 is often dubbed the first "space war" in the sense that US forces relied heavily on GPS navigation, satellite intelligence, and real-time communications to execute

[48] James Clay Moltz, "Chapter 4: The Emergence of Cooperative Restraint 1962-1975", 174
[49] James Clay Moltz, *The Politics of Space Security*
[50] James Clay Moltz, "Challenges to Space Security and Their Resolution", in *The Politics of Space Security*, (Stanford: Stanford University Press, 2019).
[51] *Ibidem*

operations – showcasing to the world the strategic force-multiplier that space assets provide.[52] As more nations and commercial actors gained access to space in the 1990s and 2000s, experts began to warn that the domain was becoming *"congested, contested, and competitive."* This phrasing – famously adopted by the Department of Defense (DoD) in the 2011 US National Security Space Strategy (NSSS) – captured the new reality of outer space Congested, because Earth orbit was filling up with satellites and debris; contested, because potential adversaries were developing means to disrupt or destroy space assets; and competitive, because numerous countries and private companies were vying for technological and economic advantages in space.[53] It is telling that prior to the late 2000s, US officials had often downplayed security concerns by insisting "there is no arms race in space." After 2008, that language was abandoned.[54] In its place, US policy began openly acknowledging serious governance and security challenges in space, including the risk of conflict. This change in rhetoric has been quickly embraced by other nations, especially those allied with the United States, and even the UN forums were routinely referring to the "contested" nature of space, underscoring how completely the discourse had transformed from the optimistic 1960s ethos.[55]

Importantly, as outer space became more militarily important, efforts to constrain the militarisation and weaponisation of space faced growing headwinds. During the 1970s and 1980s, the United States and Soviet Union engaged in sporadic talks about limiting ASATs and other space weapon systems, but no substantial agreements materialised. The foundational Outer Space Treaty remained in force, yet it was a product of the 1960s and did not ban conventional weapons or kinetic interceptors in space, nor ground-based actions against satellites. In the United Nations, nearly all countries continued to affirm the principle of peaceful use and pushed for additional arms control measures – most notably through the annual Prevention of an Arms Race in Outer Space (PAROS) resolution. Despite this broad international consensus against the weaponization of space, concrete progress on new treaties stalled. The United States, as the dominant space power, remained deeply wary of any agreement that might restrict its freedom of action or its developing missile defence plans, while not being able to verify if other countries would conduct any clandestine military projects. In effect, the legal regime lagged behind the strategic reality: no new binding rules were added to bolster the ageing OST, even as more states gained the ability to disrupt space systems.

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[52] Elena Grossfeld, "Russia's Declining Satellite Reconnaissance Capabilities and Its Implications for Security and International Stability," *International Journal of Intelligence and CounterIntelligence* 37, no. 1 (2024): 1–30, https://www-tandfonline-com.mutex.gmu.edu/doi/epdf/10.1080/08850607.2024.2330848?needAccess=true

[53] U.S. Department of Defense and Office of the Director of National Intelligence, *National Security Space Strategy: Unclassified Summary* (January 1, 2011),https://irp.fas.org/eprint/nsss.pdf
Blount, "The Discourse of Space Securitization", 61-75,

[54] Bower Adam and Jeffrey S. Lantis. "Contesting the Heavens: US Antipreneurship and the Regulation of Space Weapons." In *European Journal of International Security* 9, no. 1 (2024): 1–22. https://doi.org/10.1017/eis.2023.2.

[55] Blount, "The Discourse of Space Securitization", 61-75,

COPUOS, for its part, largely confined itself to non-military issues like coordinating satellite orbits, sharing scientific information, and developing voluntary "best practices" guidelines, since consensus on arms control remained elusive. Space had unmistakably evolved in nature – from a symbolic arena of superpower cooperation and competition in the 1960s, to an operational military domain by the turn of the millennium – and the world's approach to governing space was forced to evolve with it, albeit in an uncertain and still-fragmented way.

### 2.3 Swinging the Pendulum: The Early 2000s Oscillations

The previous sections have provided a historical and conceptual framework to understand how outer space transitioned from a predominantly scientific and cooperative domain to a highly contested strategic theatre. The ambiguity about the "peacefulness" of space and its securitisation is the basis for understanding the orientation and strategic posture of US space policy since the 2000s. Against this historical and ideational backdrop, the following empirical analysis examines how successive US administrations – beginning with George W. Bush and Barack Obama and concluding with an in-depth analysis of Trump I and Biden – have navigated the strategic challenges of outer space, demonstrating the pendulum-like swings between maximalist and retrenchment postures in response to shifting geopolitical contexts, security perceptions, and normative framework, by using the previously mentioned four indicators.

The cyclical nature of US space policy is vividly reflected in the contrasting approaches of President George W. Bush and President Barack Obama. This cycle can be understood through the "pendulum" model of American strategy described by Stephen Sestanovich, wherein US policy oscillates between maximalism and retrenchment. The transition from Bush's administration to Obama's exemplified this pendulum swing: Bush pursued a unilateral, security-driven space agenda (a maximalist stance), whereas Obama pivoted towards multilateral engagement and norm-building in space (a retrenchment adjustment).[56]

Under President George W. Bush (2001–2009), US space policy moved decisively towards a maximalist posture centred on supremacy and deterrence, as well as the importance of US space dominance from a national security perspective, different from Eisenhower's supremacy on civilian projects. The 2006 US National Space Policy (NSP06), issued in the aftermath of the terrorist attack on the Twin Towers and subsequent War on Terror security environment, adopted an assertive tone

[56] Nick J. Danby, "Trump: Maximalist or Retrencher? Making Sense of the Incoherency of a Foreign Policy" in *The Harvard Crimson*, October 1, 2019 https://www.thecrimson.com/column/america-in-the-world/article/2019/10/1/danby-maximalist-retrencher/#:~:text=When%20the%20maximalists%20go%20too,which%20another%20maximalist%20is%20elected

unprecedented since the Cold War, aligned with broader post-9/11 defence and deterrence strategy.[57] However, this was nothing more than the culmination of a maximalist stance over space.

This maximalist shift under Bush was rooted in the threat perceptions and strategic doctrine of the era. The appointment of Donald Rumsfeld in December 2001, as Secretary of Defense highlights Bush's attitude towards a more military-oriented approach to space. Indeed, Donald Rumsfled, previously headed the *Commission to Assess United States National Security Space Management and Organization*, which issued one of the most influencing reports in American space policy, laying the groundwork for what came next. The Commission's vision on space was centred on the inevitability of the space becoming a new military zone, just as the sea and air had before it, and an harsh critique about previous administrations' approach towards space, requiring the prioritisation of space both for funds are reorganisation.[58] By doing so, the Commission recommended that the US should "take seriously the possibility of an attack on US space systems" – since it is "more dependent on space than any other nations" – to avoid a "Space Pearl Harbor".[59] Thus, while acknowledging the sensitivity of the topic, the Commission also stated that the US must "develop the means both to deter and to defend against hostile acts in and from space [… and] to ensure continuing superiority".[60] In a few years, President Bush revived some sort of SDI, also appointing former supporters of Reagan's initiative; promoted a withdrawal from the Anti-Ballistic Missile Treaty (ABM Treaty)*; new projects within the Air Force – the service which has the mission of defending US Space assets – and the conceptualisation of space a new domain for Global Strike missions.[61] Critical for future analysis and trend is the decision to reorganise the missile defence architecture and understanding, in particular by upgrading the Ballistic Missile Defence Organisation in the new Missile Defense Agency, in an attempt to create a seamless web of defences to combat all threats.[62] By doing so, the Bush Administration clearly marked a break from the collective restraint shown during the Cold War era, also establishing a hardly criticised go-it-alone approach.[63]

Another important aspect concerned the role of arms control agreements and any other agreements that might restrict future US military space activities. By negotiating the Strategic

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[57] *U.S. Government, National Space Policy, August 31, 2006,* https://history.nasa.gov/national_space_policy_2006.pdf.
[58] U.S. House of Representatives, *Report of the Commission to Assess United States National Security Space Management and Organization, Pursuant to Public Law 106-65*, Committee on Armed Services (Washington, DC: U.S. Government Printing Office, January 11, 2001).
[59] *Ibidem*, xiii
[60] *Ibidem*, 100
* The ABM Treaty proscribes the development, testing, and deployment of space-based systems or components for defending against strategic ballistic missile attacks.
[61] James Clay Moltz, "Renewed U.S. Space Nationalism: 2001-2008", in *The Politics of Space Security*, (Stanford University Press, 2019).
[62] *Ibidem*
[63] "Risks of Ripping up a Treaty (Editorial), *Financial Times*, December 13, 2001,

Offensive Reductions Treaty (SORT) – so-wanted by Moscow and despite the failure in avoiding the withdrawal of the US from the AMB Treaty – Washington refused to include any on-site verification measures, while including the reversibility of the treaty once implemented. Moreover, Bush destroyed any hope for compromise for a new arms control treaty discussed within the CD, remaining unresponsive to both the 2001 Sino-Russian new proposals and the 2002 joint paper on banning space weapons.[64] This obliged the International Community to adapt and change its approach to space governance and arms control. As Moltz points out, by 2004 China change its position from "one requiring talks aimed at signing a new space treaty to one requiring only discussions."[65] Thus, a new approach based on non-binding rules arose, especially promoted by the US This approach was also supported by the appointment of Air Force General Kevin P. Chilton as the new US Strategic Command (USSTRACOM), a promoter of the "potential utility of a code of conduct or 'rules of the road' for the space domain."[66] The same year, the Department of State (DoS) promoted the utility of transparency and confidence-building measures (TCBMs) for space security.[67]

Built on previous years' developments, the NSP06 declared that "freedom of action in space is as important to the United States as air power and sea power," underscoring that US space capabilities are vital to national security.[68] The policy unabashedly asserted American rights in space by stating that the US would "preserve its rights, capabilities, and freedom of action in space" and even "deny, if necessary, adversaries the use of space capabilities hostile to US national interests."[69] In line with this dominance-oriented vision, NSP06 explicitly rejected arms control constraints in space. It stated that "the United States will oppose the development of new legal regimes or other restrictions that seek to prohibit or limit US access to or use of space", and that any proposed arms control agreement must not impinge on US rights to conduct military and intelligence activities in space.[70] This was a direct break from the more cooperative language of prior administrations and a review of the underlying philosophy of previous space policies, intended as a "firm and unwavering" stance that new international rules in space would not bind the US In essence, Bush's policy elevated space dominance and deterrence above all else, prioritising the ability to act unilaterally to protect US assets and deny adversaries any strategic advantage in space.

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[64] Detlev Wolter, *Common Security in Outer Space and International Law*, (Geneva: Un Institute for Disarmament Research, 2006), 73
[65] Moltz, *The Politics of Space Security*, 280
[66] "Advance Questions for General Kevin P. Chilton, USAF Nominee for Commander, United States Strategic Command", Daily Report, *Air Force Magazine*, September 27, 2007.
[67] Moltz, "Renewed U.S. Space Nationalism: 2001-2008", 300
[68] US Government, *U.S. National Space Policy,* August 31, 2006, art.1, https://history.nasa.gov/national_space_policy_2006.pdf.
[69] *Ibidem*, art.2
[70] *Ibidem*

Notably, just months after NSP06, events validated US concerns about space becoming a contested arena, also urging the necessity of shared rules about space debris. In January 2007, China tested a direct-ascent anti-satellite (ASAT) missile, destroying one of its own satellites in orbit. The test created over 3,000 pieces of orbital debris, starkly demonstrating the threat of space warfare and the congested, dangerous environment that can result. Just five months later, the UN COPUOS approved the Space Debris Mitigation Guidelines, a voluntary set of measures aimed at reducing the threat posed by space pollution to commercial, civilian and military space assets. In short, Bush's tenure defined one extreme of the pendulum: the United States as unilateral guardian of a "high frontier," reserving its right to militarise space for national defence and refusing to be constrained by international arms-control regimes.[71]

By contrast, President Barack Obama (2009-2017) swung the pendulum back towards diplomatic engagement, restraint, and the management of space as a global common, intending to reduce the international tension, also taking into consideration the complexity of the XXI century outer space environment, now dominated by both state and non-state actors and multifaceted interests. As in the Bush case study, Obama's National Space Policy of June 2010 (NSP-10) represents a pivotal source to understand the retrenched approach of the presidency, being the strategic document from which space policy is moving. The document marks a clear departure from the Bush-era tone, consciously tempering the maximalist approach.

Although showing some ingenuity over space matters and experiencing some halts in defining a clear space strategy represented by the right authorities, the Obama approach started showing first signs of retrenchment already in the late 2009 spring. In Geneva, the US ended an almost 15-year-long opposition within the Conference of Disarmament by deciding to reinitiate the discussion of space security, also securing the Chinese will to negotiate the Fissile Material Cut-Off Treaty. Half a year later, in the fall, the US comes out of the Bush-era opposition on PAROS, renewing the policy of abstention. Although this might be considered too timid, as pointed out by Moltz, it has to be considered that the presidency had just begun, and space policy had not been reviewed so deeply to justify such reform.[72]

Building on the previous steps taken in the international fora, the Obama administration announced the renewed National Space Policy in 2010. In contrast to the Bush case, the new NSP policy faced a high-profile promotion by the President himself, the State Secretary Clinton and other

[71] Moltz, "Renewed U.S. Space Nationalism: 2001-2008"
[72] James Clay Moltz, "Expanding International Norms Amid Tensions: 2009-Present", in *The Politics of Space Security*, (Stanford University Press, 2019), 300

space-related authorities, bringing both local and international attention to the President's intentions to promote a new vision for space-related matters. The policy fully reversed the Bush-era tone based on unilateralism and assertive militarisation, emphasising the need to develop common norms "to promote safe and responsible space operations."[73] Central to this revised approach was the reaffirmation of space as a global common that must be preserved for peaceful and collaborative use, articulated by the policy's assertion that "all nations have the right to explore and use space for peaceful purposes, and for the benefit of all humanity."[74] The administration explicitly called on all nations to act responsibly in space to "help prevent mishaps, misperceptions, and mistrust", emphasising openness and transparency in space operations, thus promoting the continuation of TCBMs operations.[75]. A key pillar of NSP-10 was an emphasis on expanded international cooperation in space activities "to the greatest extent practicable," from scientific research and exploration to climate monitoring, disaster management, and space debris mitigation.[76]

This cooperative ethos went hand-in-hand with a renewed US commitment to arms control and stability measures in space, as previously discussed. The policy stated that the United States would "pursue bilateral and multilateral transparency and confidence-building measures" (TCBMs) and "consider proposals and concepts for arms control measures" in space "if they are equitable, effectively verifiable, and enhance the national security of the United States and its allies".[77] This conditional openness to arms control, which takes into consideration the failure of the PPWT, also recognised by the Chinese counterpart – stood in stark contrast to the Bush policy's outright rejection of new agreements.[78] US delegates also engaged in the United Nations Conference on Disarmament on the Prevention of an Arms Race in Outer Space (PAROS), signalling that America was willing to talk about limits and risk-reduction measures. In one of those meeting, Deputy Assistant Secretary of State Frank Rose explicitly noted this was a "departure from the 2006 policy," acknowledging that Bush's stance had been to oppose new space arms agreements.[79] Furthermore, the administration

[73] US Government, "Goals", *U.S. National Space Policy*, June 28, 2010, https://obamawhitehouse.archives.gov/sites/default/files/national_space_policy_6-28-10.pdf
[74] *Ibidem*, "Principles"
[75] *Ibidem*
[76] The White House, "Fact Sheet: The National Space Policy," *Office of the Press Secretary*, June 28, 2010, https://obamawhitehouse.archives.gov/the-press-office/fact-sheet-national-space-policy#:~:text=,for%20debris%20monitoring%20and%20awareness
[77] US Government, *U.S. National Space Policy*, June 28, 2010, 7 https://obamawhitehouse.archives.gov/sites/default/files/national_space_policy_6-28-10.pdf
[78] Wang Qun and Valery Loschchinin, "Letter Dated 18 August 2009 from the Permanent Representative of China and the Permanent Representative of the Russian Federation…," CD/1872, August 18, 2009, United Nations Office for Disarmament Affairs, https://digitallibrary.un.org/record/670202?v=pdf
[79] Jeff Abramson and Valerie Pacer, "New U.S. Space Policy Open to Arms Control", in *Arms Control Association*, September 2010. https://www.armscontrol.org/act/2010-09/new-us-space-policy-open-arms-control#:~:text=Deputy%20Assistant%20Secretary%20of%20State,%E2%80%9D

supported discussions on a proposed European Union "Code of Conduct for Outer Space Activities," and in 2013, the Obama administration helped achieve a consensus report in the UN Group of Governmental Experts on space TCBMs, reinforcing guidelines for transparency. As the NSP20 stands as the most prominent strategic document for this examination, it is possible to observe a deliberate strategic recalibration, moving away from unilateral militarisation towards a more diplomatically engaged posture that sought stability through cooperation rather than through deterrence, at least alone.

Nevertheless, it must be specified that the administration's retrenchment did not imply a wholesale abandonment of security and military preparedness, nor a full-fledged desecuritisation. Without delving into the institutionalisation of securitisation dynamics, as well as the persistence of its effects, the consequences of the Bush doctrine and the decisions made during the previous administration had a clear impact on Obama's freedom of action at the international, national and political levels.[80] In an outer space that has now become securitised, with new actors, spacefaring nations, dual-use technologies and threats, the 2010 policy still affirmed that the US "remains committed" to the use of space for national and homeland security, and it funded improvements in capabilities like space situational awareness (SSA) and resilience of space assets, although now coupled with extensive diplomatic outreach.[81] Furthermore, the Obama administration continued programs to deter and defend against hostile acts in space – for example, by enhancing the ability to *"identify and characterize threats"* and if necessary "defeat efforts to interfere with or attack US or allied space systems," such as the harsh criticised the Falcon Hypersonic Test Vehicle (HTV-2) and the unmanned X-37B space plane.[82]

Lastly, a significant change that set the stage for the next maximalist positions (paradoxically) was the recognition of the rapidly evolving nature of space in the 21st century. This includes acknowledging the critical capabilities and continuity that the private sector can provide, especially during conflicts and its role in enhancing space resilience, promoting cost-effectiveness, and driving technological innovation. This shift – that can be understood through the promotion of initaitves such

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[80] For more information about the persistent effects of securitisation refer to:
Buzan, Wæver, and de Wilde, *Security: A New Framework for Analysis*, 29–31.
Paul Roe, "Securitization and Minority Rights: Conditions of Desecuritization," *Security Dialogue* 35, no. 3 (2004): 279–294.
Thierry Balzacq, Sarah Léonard, and Jan Ruzicka, *Theories of Securitization: Beyond the Copenhagen School* (London: Routledge, 2016), 11–15.
Claudia Aradau, "Security and the Democratic Scene: Desecuritization and Emancipation," *Journal of International Relations and Development* 7, no. 4 (2004): 388–413.
[81] The White House, "Fact Sheet: The National Space Policy", *Office of the Press Secretary*, June 28, 2010. https://obamawhitehouse.archives.gov/the-press-office/fact-sheet-national-space-policy#:~:text=,for%20debris%20monitoring%20and%20awareness
[82] *Ibidem*

as the NASA's Commercial Crew Program, and the successful engagements of companies like SpaceX and Orbital ATK, as well as the establishment of Joint Interagency Combined Space Operations Center (JICSpOC) and the Commercial Space Operations (CSpO) initiative – was also driven by increased international competitiveness, marked by the rise of new spacefaring nations and the rapid growth of the global private space sector.[83] As a result, the stringent measures implemented following the 1999 Cox Commission were gradually relaxed, paving the way for new forms of multinational cooperation on joint space projects.[84] Unintentionally, however, President Obama's approach contributed to a broader rejection of legally binding arms control agreements, leading instead to a preference for frameworks based on coalitions of like-minded nations and voluntary transparency and confidence-building measures (TCBMs).

All of these efforts illustrated Obama's fundamental reorientation: seeking security through international norms and partnerships, rather than through unilateral force and intimidation. In Sestanovich's terms, Obama was the classic retrenchment president, attempting to dial back what he saw as his predecessor's overreach and to "withdraw from costly entanglements while reorienting America's strategic interests".[85] The Obama space policy thus placed heavy emphasis on arms control and cooperation, viewing them as complementary to US security – a strategy to forestall conflict in space by building a cooperative regime where possible.

In conclusion, the early 2000s presidencies, namely the Bush and Obama ones, demonstrate a clear pendulum swing between two strategic poles, shaped by different philosophies of US leadership and how to deal with a prominent and complex threat landscape. On one hand, Bush's tenure showed a strong maximalist stance by promoting an assertive approach for American primacy in space, prioritising dominance and deterrence even at the expense of international consensus. His 2006 policy proclaimed unrestricted freedom of action and rejected global constraints, reflecting the belief that US security required an unfettered ability to project power in space and that the same ability would protect the US in space and its allies. On the contrary, despite the persistent effects of the previous securitisation of space, Obama's tenure embodied a retrenched approach by reacting against the previous militancy, re-engaging allies, promoting TCBMs and showing a broad openness towards arms control agreements. The 2010 policy sought to reestablish equilibrium through arms control initiatives and collaborative governance of space, re-engaging European and Asian allies and aligning

[83] Moltz, "Expanding International Norms Amid Tensions: 2009-Present", 325-327
[84] *Ibidem*
[85] Nick J. Danby, "Trump: Maximalist or Retrencher? Making Sense of the Incoherency of a Foreign Policy", *The Harvard Crimson*, October 1, 2019 https://www.thecrimson.com/column/america-in-the-world/article/2019/10/1/danby-maximalist-retrencher/#:~:text=When%20the%20maximalists%20go%20too,which%20another%20maximalist%20is%20elected

US policy with the notion of space as a shared commons rather than an American sphere of influence, while still promoting the American ability to deter and defend its orbital assets. Each administration was responding to the context it faced: Bush acted amid post-9/11 fears of asymmetric threats and rising near-peer competitors in space, while Obama responded to concerns that unilateralism was alienating allies and spurring international pushback. The result was a pendulum swing from one paradigm to the other. Nevertheless, the Bush and Obama policies together shaped a cycle of action and reaction. This ongoing oscillation has fundamentally defined US space policy, especially considering the two subsequent administrations, namely the Trump I and Biden, also highlighting that US space strategy may be understood as both cyclical and progressive, since each administration has to deal with the new landscape while model the new strategy under its own approach, either it is maximalist or retrenched.

### 2.4 - Trump vs. Biden: The Maximalism–Retrenchment Pendulum in US Space Policy

Building on the previous pendulum swings experienced in the early 2000s with the Bush and Obama presidencies, this section explores the first Trump administration and the subsequent one, headed by Biden. Indeed, the pattern of policy reversal, seen during the Bush and Obama years, also extends to the Trump and Biden administrations. As noted by Philip A. Wallach, a key focus of Barack Obama's presidency was undoing the assertive, unilateral regulatory policies of the George W. Bush era. In turn, Donald Trump's administration sought to dismantle many of Obama's cooperative frameworks, emphasising military dominance. Under Joe Biden, we witnessed yet another shift, even if moderate, and re-established multilateral engagement and sustainability in space policy.[86] By doing so, the analysis will employ the methodological framework described in section 1.3, namely the four indicators: rhetorical framing of outer space, institutional innovation, level of unilateralism versus multilateral engagement, and attitudes towards arms control and international norms.

#### 2.4.1 - On Power: Trump's Maximalist Approach to Space

**Rhetorical framing of space:** Donald Trump's presidency adopted a distinctly maximalist approach to space-related matters. While initially operating under Obama's NSP10, Trump's vision for space focused on prioritising military capabilities to secure strategic advantages, with little interest in establishing or advancing new arms control treaties. Although Trump only released his own National Space Policy (NSP20) towards the end of his administration, his efforts on space policy were evident

[86] Philip A. Wallach, "The Pendulum is the Pits: Can the United States Make Enduring Regulations?" *Brookings Institution*, December 21, 2020

throughout his term, particularly through the issuance of several Space Policy Directives (SPD-n) and the National Space Strategy (NSS) brief.[87]

Even before taking office, Trump's presidential campaign and his declarations asserted a maximalist approach towards outer space, highlighting a vision of supremacy and dominance in space. Two weeks before the election, Trump sharply criticised Obama's space policies, accusing him of severely undermining the US space programs, showing the will to "free NASA from being primarily a logistics agency for low Earth orbit operations."[88] Most notably, the approach was confirmed and reiterated by Trump's political advisor, namely Robert Walker and Peter Navarro. In direct contrast to Obama's NSP10, the advisors published two op-eds outlining Trump's vision for space, both at the civilian and military levels. In the first piece, it is argued that the government should reinvigorate the pace program by potentiating the public-private partnership and investing more budget in deep exploration rather than Earth-centric initiatives.[89] The authors highlight two main justifications to do so: economic gains and security reasons. As in every securitisation process, Navarro and Walker justify such an increase in spending for existential reasons, underlying the hostility of the domain and the assertive posture embraced by Russia and China. They conclude by saying that a renewed space program is needed "to maintain our [the US] strategic advantage in space and defend our [American] troops and homeland."[90]

In their second piece, titled "Peace through Strength", the two advisors take a more assertive stance, based on national security and the need for compelling actions to challenge an ever-increasing hostile space. The authors argued that the Trump administration's space policies should focus on reducing vulnerabilities and ensuring that military commands have the necessary space-based tools for their missions[91]. Additionally, they advocated for the development of emerging technologies capable of revolutionising warfare, alongside the establishment of more extensive military partnerships with the private space sector to expedite the delivery of new capabilities.[92] This meant

[87] *Center for Space Policy and Strategy, Space Policy Archive*, Aerospace Corporation. Archive accessible at https://csps.aerospace.org/resources/space-policy-archive?page=0
The White House, Office of the Press Secretary, "President Donald J. Trump Is Unveiling an America First National Space Strategy," March 23, 2018 https://csps.aerospace.org/resources/space-policy-archive?page=0
[88] Marcia Smith, "Trump: 'I Will Free NASA' From Being Just a LEO Space Logistics Agency", *SpacePolicyOnline*, October 25, 2016, https://spacepolicyonline.com/news/trump-i-will-free-nasa-from-being-just-a-leo-space-logistics-agency/
[89] Peter Navarro and Robert S. Walker, "Op-ed | Trump's space policy reaches for Mars and the stars", *SpaceNews*, October 19, 2016. https://spacenews.com/trumps-space-policy-reaches-for-mars-and-the-stars/
[90] *Ibidem*
[91] Grunert, *The United States Space Force and The Future of American Space Policy. Legal and Policy Implications*
[92] Robert S. Walker and Peter Navarro, "Donald Trump's 'Peace Through Strength' Space Vision", *SpaceNews*, October 24, 2016 https://spacenews.com/op-ed-donald-trumps-peace-through-strength-space-doctrine/

prioritising dominance in space as a core strategic goal, clearly delineating Trump's space policy objectives before being elected.

This rhetorical framing has been promoted throughout the administration, highlighting the securitisation process that outer space has undergone. The promoted 2017 National Space Strategy outlined a whole-of-government approach to enhance the resilience of space architecture and strengthen both deterrence and warfighting capabilities.[93] Moreover, the then-Vice President Mike Pence, before being appointed as chair of the newly established National Space Council (NSpC), in an opinion written for the Wall Street Journal, expressed his concerns over a "falling behind in the Final Frontier" of the US, expressing the need for American dominance in outer space. Describing the geopolitical context and the threat posed by American competitors, he wrote that "In the face of this threat [China and Russia's ASAT developments], America must be as dominant in space as it is on Earth."[94] Furthermore, in August 2019, while establishing US Space Command – considered one of the most maximalist examples of the first Trump presidency – Trump vowed that American space dominance would "never be questioned and never threatened."[95] A few months before, by the one who will become the first commander of the space force, General John W. Raymond, the space was framed again as a warfighting domain, more specifically a "Joint Warfighting Domain just like the air, land, and sea", and the need to "re-architect the space enterprise for warfighting."[96]

Such rhetoric, rooted in the doctrine of "peace through strength," and invoking dominance, strength, and superiority, epitomised the administration's realist, power-projection doctrine, depicting space not as a realm of collective scientific endeavour but as a contested frontier where dominance was necessary to deter adversaries. Trump's administration contributed to the securitisation of space, first of all by repeatedly invoking existential threats from rival powers such as China and Russia, thus justifying the redirection of resources towards military and dual-use capabilities. This discursive shift laid the foundation for institutional transformations, such as the reactivation of the National Space Council and the creation of the US Space Force and served as a key mechanism for legitimising the administration's broader maximalist space posture. As such, rhetoric under Trump was not merely

[93] US Government, *U.S. National Space Strategy*, March 23, 2018, https://trumpwhitehouse.archives.gov/briefings-statements/president-donald-j-trump-unveiling-america-first-national-space-strategy/.
[94] Mike Pence, "America Will Return to the Moon—and Go Beyond", *Wall Street Journal*, October 4, 2017, https://www.wsj.com/articles/america-will-return-to-the-moonand-go-beyond-1507158341
[95] Robert Burns, "Trump declares new Space Command key to American defense", *Associated Press*, August 29, 2019, available at https://apnews.com/article/air-force-donald-trump-ap-top-newspolitics-19f021f991844b348dc716f6f8851f7c
[96] John W. Raymond, *Statement of General John W. Raymond, Commander, Air Force Space Command, to the House Armed Services Committee on Fiscal Year 2018 Priorities and Posture of the National Security Space*, May 19, 2017, https://docs.house.gov/meetings/AS/AS29/20170519/105974/HHRG-115-AS29-Wstate-RaymondJ-20170519.pdf.

symbolic: it operated as a strategic instrument that reshaped both policy orientation and the architecture of US space power.

**Institutional innovation:** Building on the institutional legacies of his predecessors, President Trump undertook the most extensive organisational restructuring of US space governance since the Cold War. This transformation was not merely rhetorical, as it was translated into tangible bureaucratic innovation, budgetary prioritisation, and doctrinal realignment across both civilian and military spheres.

A hallmark of Trump's space policy was the elevation of military and institutional capacity to assert US power in space. In June 2017, five months after taking office, President Trump issued Executive Order on *Reviving the National Space Council* (EO 13803), reestablishing the National Space Council (NSpC).[97]. Dormant since 1993, after its disbandment after George H.W. Bush, the NSpC was resurrected as a high-level body chaired by the Vice President to coordinate civil, commercial, and national security space activities, working as an Executive branch council and operating as a policy development office. Under Trump's administration, the NSpC played a key role as the main political body to discuss and decide on space-related matters, especially about launching new initiatives, including efforts to return Americans to the moon, streamline regulations for commercial space activities, establish a new military branch for space, and update the overall national space policy.[98] It is noteworthy that the subcommittee of the Users' Advisory Group, which has the largest number of advisors, is the one focused on national security, signalling how closely space policy was entwined with defence interests in the Trump era.[99]

However, Trump's most dramatic organisational move was the re-establishment of the US Space Command (USSPACECOM) and the US Space Force, as the maximum level of maximalist expression. The 2017 National Space Strategy, which, as noted by Scott Pace is rooted in some key ideas presented in the 2001 Rumsfeld Commission Report, outlined a whole-of-government approach, working closely with the private sector and allied nations to enhance the resilience of space architecture, improve capabilities, structures, and processes, foster favorable domestic and international environments, and strengthen both deterrence and warfighting capabilities.[100] However,

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[97] Donald J. Trump, "Executive Order 13803 – Reviving the National Space Council", https://www.govinfo.gov/content/pkg/DCPD-201700449/pdf/DCPD-201700449.pdf

[98] Scott Pace, "US National Security Interests in Space", in *The Oxford Handbook of Space Security*, ed. Saadia M. Pekkanen and P.J. Blount (Oxford: Oxford University Press, 2024), 275–292, https://doi.org/10.1093/oxfordhb/9780197582671.013.16.

[99] *UAG Organization.* March 20, 2024, https://www.nasa.gov/wp-content/uploads/2024/03/uag-organization-2024-03-20-2.pdf?emrc=86e425

[100] Pace, "US National Security Interests in Space", 275–292,

the Office of Management and Budget (OMB) went a step further, outlining recommendations to "strengthen the leadership, management, and organization of the Department of Defense with respect to the national security space activities of the Department," as mandated by Section 1616 of the 2017 National Defense Authorization Act.[101]

Two years later, in August 2019, he formally re-established USSPACECOM as a unified combatant command for space, calling space "the next warfighting domain" and assigning USSPACECOM to "defend America's vital interests in space".[102] Just a few months later, in December 2019, Trump created the US Space Force – the first new Armed Service since 1947 – as the sixth branch of the military.[103] The Space Force was tasked to organise, train, and equip "space warriors," ensuring America's capacity to "prepare for victory" in any conflict that extends to space.[104] With this approach, the Trump administration made the United States the first country in the world to establish an independent space force, complete with its own doctrine, budget, and mission.

The renewal of the National Space Council, coupled with the reestablishment of USSPACECOM and the launch of the new Space Force, elevated outer space to a standalone military domain, prioritising the strategic aspects of this domain and focusing on the development of the necessary military capabilities to address potential threats. By doing so, the administration started to securitise space even before being elected, thus allowing increased budget for both the civilian and military space sectors. Although these moves were partly bureaucratic – reorganisations of roles formerly within the Air Force – symbolically and operationally, they entrenched a more aggressive posture. The prioritisation of military space investment was clear: Trump boosted Pentagon space budgets and directed the DoD to enhance warfighting capabilities in space, reflecting recommendations to strengthen defence space leadership in the 2017 NDAA. In sum, Trump's presidency saw the United States build an unprecedented institutional architecture for space power, from a reinvigorated Space

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[101] *National Defense Authorization Act for Fiscal Year 2017*, Pub. L. No. 114-328, § 1616, 130 Stat. 2000 (2016), https://www.congress.gov/bill/114th-congress/senate-bill/2943.

[102] U.S. Space Command, "Remarks by President Trump at Event Establishing the U.S. Space Command", August 29, 2019. https://www.spacecom.mil/Newsroom/Speeches/Speech-Display/Article/2388821/remarks-by-president-trump-at-event-establishing-the-us-space-command/#:~:text=With%20today%E2%80%99s%20action%2C%20we%20open,is%20to%20prepare%20for%20victory

[103] "Space Force: Trump Officially Launches New US Military Service", *BBC News*, December 21, 2019, https://www.bbc.com/news/world-us-canada-50876429
*National Defense Authorization Act for Fiscal Year 2020*, Pub. L. No. 116-92, § 952, 133 Stat. 1198 (2019), https://www.congress.gov/bill/116th-congress/senate-bill/1790.

[104] U.S. Space Command, "Remarks by President Trump at Event Establishing the U.S. Space Command", August 29, 2019. https://www.spacecom.mil/Newsroom/Speeches/Speech-Display/Article/2388821/remarks-by-president-trump-at-event-establishing-the-us-space-command/#:~:text=With%20today%E2%80%99s%20action%2C%20we%20open,is%20to%20prepare%20for%20victory

Council at the White House to a fully independent Space Force in the Pentagon, cementing a maximalist approach geared towards securing US preeminence in the "ultimate high ground."

**Unilateralism versus multilateralism:** Internationally, the Trump administration favoured selective partnerships on US terms over broad multilateral governance, mainly centred on the concept of a coalition of the willing. In contrast to Obama's advocacy for a multilateral approach with universal aspirations for governance, even showing a willingness to sign arms control treaties, Trump's space policy favoured a return to non-binding agreements and collective efforts among like-minded nations. Notably, his administration showed little interest in arms control negotiations for space security, instead emphasising that American strength would deter adversaries and an interest-driven approach towards outer space. Trump's strategy, indeed, was one which favours non-binding agreements as tools to establish norms of responsible behaviour, setting both operational and para-legal standards with the long-term goal of developing them into customary international law.

Following this logic, based on the previous Space Policy Directive 1 (SPD-1), President Trump issued an Executive Order titled *Encouraging International Support for the Recovery and Use of Space Resources* (EO13914), with Section 2 stating that space is not a global common and that the 1979 Moon Agreement would not be considered as a basis of customary international law, also defining the US version of good practices in Space.[105] EO 13914, even if it is focused on the extraction in and commercial use and opportunities of space, makes clear the shift to a more competitive and interest-driven approach, marked by a return to a strategy that promotes non-binding agreements and bilateral or multilateral efforts with countries that share US strategic interests. Moreover, it paved the way for a more transactional, interest-driven diplomacy in space resources and operations.

The signature diplomatic initiative was NASA's Artemis Accords in 2020 – a set of bilateral and multilateral political commitments establishing principles for lunar exploration and resource utilisation. The Artemis Accords represent the realisation of the diplomatic direction outlined in the 2017 National Space Strategy (NSS), embodying the Trump approach: they are voluntary guidelines, led by Washington, designed to set norms of behaviour in lieu of formal international law.[106] By the end of Trump's term, only nine countries had signed the Accords – predominantly close US allies

[105] Donald J. Trump, "Encouraging International Support for the Recovery and Use of Space Resources". Executive Order 13914, April 6, 2020", https://www.federalregister.gov/documents/2020/04/10/2020-07800/encouraging-international-support-for-the-recovery-and-use-of-space-resources

[106] The White House, Office of the Press Secretary, "President Donald J. Trump is Unveiling an America First National Space Strategy", March 23, 2018. Accessed at Space Policy Archive. Archive accessible at https://csps.aerospace.org/resources/space-policy-archive?page=0

(e.g. Canada, Japan, Australia, the UK, Italy).[107] This limited participation underscored criticisms that the Accords were "too US-centric." Russia's space agency chief, Dmitry Rogozin, pointedly refused to join, arguing the framework was an American attempt to set the rules with a small clique of partners. Chinese commentators likewise warned that the US forming exclusive clubs in space could fuel rivalry and conflict beyond Earth.[108] For instance, China's Ni Lexiong argued that by setting international rules with only a "small group of allies," the US risked stoking strategic competition even on the Moon. Such concerns were borne out by China and Russia deepening their own cooperation explicitly as an alternative to the US-led Artemis initiative.[109]

Nevertheless, the Trump administration did achieve some incremental multilateral progress in areas aligned with its interests. In 2019, the UN COPUOS adopted 21 voluntary guidelines for the long-term sustainability of space activities (LTSSA), supported by the US as consistent with its preference for flexible arrangements over treaties.[110] In essence, the administration favoured pragmatic cooperation on safety and commercial issues but pulled back from any initiative that might constrain US freedom of action militarily. Its preference was for bilateral or minilateral agreements that preserve US leadership and freedom, rather than submitting to new global rules. This represented a return to the early 2000s US approach that "eschewed multilateral discussions of norms and rules" if they might limit US strategic capabilities, although with some differences as pointed out by Bleddyn Bowen and P.J. Blount.[111] Thus, on the international stage, Trump's maximalism translated into a go-it-alone ethos: America would cooperate when it bolstered US goals, but fundamentally sought to set the agenda and avoid being tied down by broad international constraints.

This strategic orientation reflected a fundamental shift from multilateral rulemaking to unilateral or minilateral norm-setting, although this has been the approach in space-related matters of several administrations. As stated previously, however, the refusal to negotiate any binding agreement is a peculiar characteristic of maximalist swings. Rather than seeking formal, binding agreements under the auspices of the United Nations or other global fora, the Trump administration pursued a more

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[107] NASA, *Artemis Accords: Principles for Cooperation in the Civil Exploration and Use of the Moon, Mars, Comets, and Asteroids for Peaceful Purposes*, October 13, 2020, https://www.nasa.gov/specials/artemis-accords/index.html.
[108] Alexander Stirn, "Do NASA's Lunar Exploration Rules Violate Space Law?, in *Scientific American*, November 12, 2020. https://www.scientificamerican.com/article/do-nasas-lunar-exploration-rules-violate-space-law/#:~:text=At%20the%20IAC%2C%20Rogozin%20said,with%20the%20nation%20in%20space
[109] *Ibidem*
[110] Pace, "US National Security Interests in Space", 275–292,
[111] Bleddyn Bowen and P.J. Blount, "Donald Trump's approach to US space policy could throw up some surprises, especially with Elon Musk on board", in *The Space Review,* December 2, 2024. https://www.thespacereview.com/article/4901/1#:~:text=not%20undo%20it%20and%20furthered,the%20civilian%20Department%20of%20Commerce
United Nations Office for Outer Space Affairs. *Long-term Sustainability of Space Activities*, 2021. https://www.unoosa.org/oosa/en/ourwork/topics/long-term-sustainability-of-outer-space-activities.html.

flexible form of diplomacy grounded in voluntary, interest-based arrangements aimed at shaping the normative architecture of space through political coalitions of like-minded nations, thereby elevating the role of US-defined standards in the absence of universal rules. This approach can be interpreted as a reflection of how outer space was constructed discursively as a security domain in which selective, capability-driven partnerships reinforced a bifurcated global governance landscape, increasingly marked by geopolitical fragmentation. In this context, the Artemis Accords became not only a normative tool but also a geopolitical instrument. This phenomenon is also highlighted by the increased space cooperation between China and Russia, positioned as alternatives to the US-led framework, which underscores the emergence of a dual-track system of space governance.

Thus, Trump's go-it-alone ethos and sovereignty-first diplomacy not only reshaped how norms were produced but also contributed to the polarisation of international space politics.

**Attitude towards norms and arms control:** Consistent with the above, the Trump administration was generally averse to new arms control or space law initiatives, preferring deterrence – or dominance – to rules, with no new space arms agreements advanced during his presidency. In 2019, Space Policy Directive-4 (SPD-4) outlined plans for the Space Force and spoke of the need for "offensive space operations" as part of US doctrine.[112] Such language underscored that the administration viewed limitations on space weapons with scepticism, continuing the opposition to the Russian-Chinese PPWT to ban space-based weapons, calling it riddled with loopholes and unverifiable, as already stated by both the Bush and Obama presidencies. The US also distanced itself from earlier international discussions on PAROS at the CD, which had long been stalled.

Instead, Trump's team pursued unilateral measures – building resilience into US satellites, developing rapid launch capabilities, and leveraging the private sector for innovation in defence. Although the increased private involvement was one of the major policy achievements of Obama's presidency, Trump's pendulum swing transformed this involvement into a supremacy and dominance booster for the US, as well as a tool to promote the act-alone capabilities in the orbital domain by reducing reliance on international partners. Indeed, public-private partnerships were strongly encouraged through NSP20 and the various SPDs, not only to spur commercial growth but also to ensure the US military and intelligence community could tap cutting-edge technology from companies like SpaceX, thereby outpacing adversaries. This political shift is driven by several factors, including economic considerations, such as the cost per astronaut per trip to the ISS, industrial factors

[112] The White House, *National Space Policy Directive-4 (NSPD-4): Establishment of the United States Space Force*, February 19, 2019. https://trumpwhitehouse.archives.gov/presidential-actions/text-space-policy-directive-4-establishment-united-states-space-force/

stemming from the vibrant US private space industry, and broader political dynamics.[113] By achieving independent US human spaceflight, the US became less dependent on international partners, weakening traditional interdependence in space endeavours, in particular between key states that should be central to any space governance discussions, especially regarding arms control agreements, most notably with Russia. While this bolstered US autonomy, it also removed some incentives for arms control; when reliant on others, there is a mutual interest in keeping relations stable. Trump's push for autonomy and dominance thus went hand-in-hand with an apparent indifference to arms control, viewing them as unnecessary or even harmful to US interests. In summary, Trump's first term marked a maximalist swing, thus departing from Obama's retrenched, governance-focused approach. His administration entrenched a maximalist strategy in which militarisation, unilateral advantage, and selective cooperation play a crucial role both in rhetoric and practical senses, setting the stage for a pendulum swing when the next administration took office.

### 2.4.2 Global Governance for Peace: Biden's partial retrenchment

**Rhetorical framing:** Joe Biden's administration represented a swing back towards a retrenchment approach in space policy, although it is important to note the systemic role played by securitisation in the previous presidency. Indeed, as evidenced in Obama's analysis and supported by the Copenhagen school, once an issue is securitised – or institutionalised – it becomes nearly impossible to fully desecuritise it in the short term, thus requiring a kind of continuity with previous efforts, such as operating in the same institutional framework. Therefore, the Biden era represents a partial retrenchment, much like how the Obama presidency was a response to the Bush administration. This partial retrenchment made some analysts argue that the pendulum swing came to an end, with Biden fully supporting some of Trump's initiatives in Space. In response to this question, White House Press Secretary Jen Psaki stated that space was one of the few areas where the administration shared common ground with the previous one.[114] Indeed, although the NSP20 was published during a maximalist phase, the bipartisan consensus on space issues during Trump's presidency enabled the creation of a strategy that even a new administration from the opposition could work with.[115]

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[113] Pavel Luzin, "U.S.-Russia Space Cooperation: Eroding Interdependence Followed by Symbolic Partnership", *Russian Analytical Digest* 253 (2020): 6-8, https://doi.org/10.3929/ethz-b-000420927.
[114] The White House, "Press Briefing by Press Secretary Jen Psaki", March 30, 2021, https://www.whitehouse.gov/briefing-room/press-briefings/2021/03/30/press-briefing-by-press-secretary-jen-psaki-march-30-2021/.
[115] U.S. Senate Committee on Commerce, Science, and Transportation, "Bipartisan NASA Authorization Bill Clears Senate", *Press Release*, December 18, 2020, https://www.commerce.senate.gov/2020/12/bipartisan-nasa-authorization-bill-clears-senate
Karl A. Bingen, Kaitlyn Johnson, John Dylan Bustillo, and Marie Villerreal Dean, "U.S. Space Force Primer", *Center for Strategic & International Studies*, January 3, 2023, https://www.csis.org/analysis/us-space-force-primer.
Grunert, *The United States Space Force and The Future of American Space Policy. Legal and Policy Implications*, 116

Biden signalled early on that, while he would not dismantle the foundations Trump laid, he would recalibrate US space strategy towards multilateral engagement, stability, and global governance. In contrast to Trump's bombastic "America First" style, Biden's public rhetoric on space has been subdued and oriented around peaceful collaboration. The Democratic platform, leading up to the 2020 election, frequently referenced universal concepts such as "our own planet and place in the universe" and "our home planet", highlighting the shift from the previous maximalist policy.[116] The administration framed space as a realm where international rules and partnerships can prevent conflict, where a global effort has to be made to safeguard sustainability and the endurance of the orbital environment.

The priorities through which the presidency moved its steps were clearly stated in the 2021 "United States Space Priorities Framework", which committed to "preserving space for current and future generations" and stressed "strengthening global governance of space activities," with the main priority the sustainability of space activities and planetary protection.[117] The employed rhetoric is, thus, fundamentally about stewardship and cooperation rather than dominance, intended to lead efforts for the peaceful use of outer space in the interests of humankind. In practice, Biden's strategy has been to maintain US leadership but channel it towards building consensus on norms and addressing shared challenges, like orbital debris and climate impacts. For example, the Space Priorities Framework explicitly links space activities to benefits "for the American people and the world," and commits to using space to tackle global challenges such as the climate crisis.[118] This reflects Biden's broader foreign policy approach of re-engaging alliances and international institutions. However, the retrenchment is only partial: Biden did not repudiate the idea of US strength in space – he continued to support a robust national security space posture – but he coupled that strength with an emphasis on diplomacy, rule-making and norm-setting, thus reinvigorating a Cold-War era vision, i.e., the idea of peaceful use of outer space for intelligence gathering and information, with no declared intent for space weapons, whether based in space or anywhere else.[119]

In 2022, the Biden administration published "A Strategic Framework for Space Diplomacy" as a pillar of the broader strategy for space.[120] The document, coupled with the 2021 "United States Space

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[116] Jacqueline Feldscher, "Biden's Space Policy: One Giant Leap for Climate Change", *Politico*, October 28, 2020, https://www.politico.com/news/2020/10/28/biden-space-policy-climate-change-433236.
[117] The White House, *United States Space Priorities Framework* (Washington, DC: The White House, December 2021). https://csps.aerospace.org/sites/default/files/2021-12/United-States-Space-Priorities-Framework-_-December-1-2021.pdf
[118] *Ibidem*
[119] *Ibidem,*
[120] U.S. Department of State, *A Strategic Framework for Space Diplomacy*, (Washington, DC: U.S. Department of State, 2022). https://csps.aerospace.org/sites/default/files/2023-05/Space-Framework-Clean-2-May-2023-Final-Updated-Accessible-5.25.2023.pdf

Priorities Framework", advocates for the renewal and strengthening of space diplomacy, primarily with allies and partners, but also extends efforts to engage emerging space powers and other nations, even adversaries. Most importantly, the second pillar of the document "Space for Diplomacy", puts great emphasis on universal concerns such as "climate change and environmental sustainability; crisis management and conflict prevention; arms control and international security; […] and human health […]", reinforcing a vision of space for humankind.[121] In essence, the Biden administration totally recalibrated the rhetoric on space, managing the need for global governance of space activities with an increased securitisation of the space sector, in which verification mechanisms and trust among actors are increasingly complex. Thus, while recognising the need for strength, the rhetoric swings from a maximalist perspective, focused on dominance and freedom of movement/operation, to one that is focused on universal efforts from all parties, especially from spacefaring nations.

**Institutional Innovation:** One striking aspect of Biden's approach is the decision to preserve and build upon the institutional changes made under Trump. Biden opted for continuity, where undoing policies would be impractical due to both the irreversibility of conceptual changes regarding space during the maximalist period and the economic-financial implications. Trump's maximalist space policy created political, strategic, and operational imperatives in space that are now difficult to reverse due to the securitisation of the domain, also demonstrated by the assertive measures taken by US adversaries like Russia and China.[122] This bipartisan support was also driven by the massive political and financial cost that restructuring the Air Force and creating the Space Force had entailed. As Dale Ketcham, Vice President of Government Relations at Space Florida, remarked: "It is just too important. It would be too awkward, expensive, and dangerous to try to go back". For instance, despite partisan differences, the Biden White House made clear that the US Space Force would remain. Just weeks into the term, Press Secretary Jen Psaki affirmed Space Force had "the full support of the Biden administration" and that "we are not revisiting the decision to establish the Space Force."[123] Biden thus accepted the new military architecture – including US Space Command and Space Force – as a *fait accompli* and sought to guide it in a responsible direction (for example, by emphasizing responsible military behaviour in space rather than weaponization).

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[121] *Ibidem*, 7

[122] U.S. Space Command Public Affairs Office, "Russian Direct-Ascent Anti-Satellite Missile Test Creates Significant, Long-Lasting Space Debris", *U.S. Space Command*, November 15, 2021, https://www.spacecom.mil/Newsroom/News/Article-Display/Article/2842957/russian-direct-ascent-anti-satellite-missile-test-creates-significant-long-last/.

[123] Sandra Erwin, "White House: Space Force 'Absolutely Has the Full Support of the Biden Administration'", *SpaceNews*, February 3, 2021, https://spacenews.com/white-house-space-force-absolutely-has-the-full-support-of-the-biden-administration/.

Similarly, Biden retained the National Space Council, which Trump had revitalised, although deeply reformed. In fact, rather than letting it lapse, Biden renewed the NSpC through the Executive Order on the National Space Council (EO 14056), expanding its mandate and membership.[124] In December 2021, the President signed an order adding five new members to the Council: the Secretaries of Education, Labor, Agriculture, and the Interior, as well as the National Climate Advisor.[125] This broadened membership was highly symbolic – it integrated perspectives on climate change, STEM education, and environmental stewardship into space policymaking at the highest level, priorities defined in the above-mentioned "Space Priorities Framework". The message was that space is not just about rockets and satellites for military or commercial gain, but also about benefits to society and the planet. Vice President Harris convened the first meeting of the renewed Space Council in late 2021, where she stressed the Council's responsibility to "synchronize our nation's civil, commercial, and national security space activities."[126] Notably, the presence of officials like the National Climate Advisor Gina McCarthy and Secretaries like Interior and Agriculture at the table showed Biden's whole-of-government view of space: space data to fight climate change, satellite services to help farmers and educators, all alongside the traditional security and commerce topics, totally in contrast with the Trump-era Space Council, whose largest advisory subcommittee was focused on national security.[127] Under Biden, the Council's purview was widened to include using space capabilities for the public good and global challenges.

In terms of civil space programs, Biden also continued Artemis – which will be further investigated in the next section – the Moon-Mars exploration initiative begun under Trump, indicating a desire for stability in NASA's agenda. Furthermore, Biden's budgets protected or even increased funding for NASA's Earth science and climate monitoring missions (reversing Trump's attempted cuts), aligning space policy with environmental priorities.[128] In summary, as observed with Obama's presidency, institutionally, Biden's team did not tear down Trump's structures – instead, they repurposed and expanded them. The Space Force continues, but with an emphasis on allied cooperation. The National

[124] The White House, "Executive Order on the National Space Council", December 1, 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/01/executive-order-on-the-national-space-council/.
[125] Ibidem
[126] NASA, "Vice President Kamala Harris Chairs Her First National Space Council Meeting", YouTube video, 1:46:14, December 1, 2021, https://www.youtube.com/watch?v=G_hzzWjVowg.
[127] Marcia Smith, "Biden-Harris Space Priorities Framework Calls for Robust Space Enterprise, Space Sustainabilty" *SpacePolicyOnline.com*, December 1, 2021 https://spacepolicyonline.com/news/biden-harris-space-priorities-framework-calls-for-robust-space-enterprise-space-sustainabilty/#:~:text=President%20Biden%E2%80%99s%20Executive%20Order%20expands,vibrant%20workforce%20for%20the%20future
[128] Jonathan Coopersmith, "Comparing Harris and Trump on space policy", *The Space Review,* November 4, 2024. *https://www.thespacereview.com/article/4884/1#:~:text=Perhaps%20the%20biggest%20difference%20between,not%20have%20to%20earn%20a*

Space Council persists, but with added seats for climate and social good. This reflects a pragmatic understanding that US leadership in space can be preserved while also embedding it in a larger agenda of global sustainability and cooperative security, also conceptualising leadership as norm-maker, norm-setter rather than dominance.

**Unilateralism versus multilateralism:** The sharpest contrast between Biden and Trump comes in the diplomatic arena and particularly about international partnerships with both traditional allies and emerging space powers, as supported by the former NASA Administrator Sean O'Keefe.[129] The Biden presidency represents a clear attempt to move beyond the competitive and interest-driven approach of the previous Trump administration through a renewed engagement with allies and international institutions on space matters through a more cooperative and governance-based strategy grounded in international law and shared values, thereby partially reversing the unilateralist course of the prior administration.[130] This focus is clearly articulated in both the 2021 "United States Space Priorities Framework" and the 2022 "A Strategic Framework for Space Diplomacy", as highlighted in the "rhetoric framing" section. While there is continued support for initiatives centred around non-binding agreements, the new administration's space policy, under the leadership of Vice President Harris, aims to strengthen binding agreements and promote responsible behaviour in space activities.

One early signal was the US re-entry into multilateral forums to shape space norms, thus looking to reestablish US norm-marking and norm-setting leadership. In 2021, the United States endorsed the UK-sponsored initiative "Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours", concerning a resolution in the UN General Assembly to discuss "Responsible Behaviours in Space" – something the Trump administration likely would have shunned.[131] The resolution was the UK's attempt to restart stalled discussions on PAROS.[132] The UK first called on states to identify activities that could be considered "responsible, irresponsible, or threatening" and to share ideas for developing norms of responsible behaviour.[133] The British proposal also called for the establishment of an open-ended UN working group with four main tasks: to take stock of the existing international legal and normative frameworks related to outer space, to

[129] Rachael Nail, "What Would a Biden Presidency Mean for the Space Program vs. a Second Trump Term?" *Florida Today*, September 4, 2020, https://www.floridatoday.com/story/tech/science/space/2020/09/04/donald-trump-vs-joe-biden-space-issues/3363016001/.
[130] The White House, *United States Space Priorities Framework* (Washington, DC: The White House, December 2021). https://csps.aerospace.org/sites/default/files/2021-12/United-States-Space-Priorities-Framework-_-December-1-2021.pdf
[131] Aidan Liddle, "Responsible Behaviours in Outer Space: Towards UNGA 76", *Foreign, Commonwealth & Development Office Blog*, June 8, 2021, https://blogs.fcdo.gov.uk/aidanliddle/2021/06/08/reducing-space-threats-towards-unga-76/.
[132] "Proposed Prevention of an Arms Race in Space (PAROS) Treaty", *Nuclear Threat Initiative*, https://www.nti.org/education-center/treaties-and-regimes/proposed-prevention-arms-race-space-paros-treaty/.
[133] West, "Arms Control and the Myth of Peaceful Uses in Outer Space", 223–247,

consider current and future threats to space systems, to define irresponsible behaviour, and to make recommendations on potential norms, rules, and principles, as well as how they could contribute to the development of legally binding instruments.[134] However, even if approved by an overwhelming margin by the First Committee – 163 votes in favour, eight votes against, and nine abstentions.[135] Although the working group operates by consensus and highlights obstruction by China and Russia, the US support for its creation signals Washington's return to the international rulemaking fold and marks a major shift from the previous approach of the Republican presidency. Therefore, the US reclaimed a leadership role not just among "coalitions of the willing" but in the UN itself, trying to rebuild credibility as a champion of a rules-based international order in space.

At the same time, the approach, the scope and the extent of the Artemis accord increased dramatically by Harris's decision. In fact, the then-Vice President, despite employing the same like-minded approach of the previous administration, aimed at creating a more inclusive and widely accepted set of norms for space activities by expanding the Accords' participation and membership, including a broader range of nations.[136] Indeed, in discussing Vice President Harris's role during the Biden presidency, former NASA Administrator Bill Nelson remarked that "[Harris] has been a key advocate for the importance of space cooperation with our international partners and growing the number of Artemis Accord signatories."[137] Under their leadership, the number of participants in the Artemis Accords increased from seven to forty-five, reflecting the administration's commitment to defining norms of behaviour "to enhance safety, stability, and sustainability in space."[138] Importantly, the new signatories have included not only traditional allies (France, Germany, South Korea, etc.) but also emerging spacefaring states in Latin America, Africa, and Asia. By broadening the tent, the US is attempting to foster a widely accepted set of norms that eventually might become customary international law – a long-term strategy to counter the narrative of US-centrism, also favoured by maximalist administrations, as they usually are non-binding. Rather than a narrow club, the accords

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[134] Grunert, *The United States Space Force and The Future of American Space Policy. Legal and Policy Implications*, 117-118

[135] Mary Ann Hurtado, "UN Panel Approves Working Group on Space", *Arms Control Association,* December, 2021. https://www.armscontrol.org/act/2021-12/news/un-panel-approves-working-group-space#:~:text=The%20UN%20General%20Assembly%20First,military%20activities%20in%20outer%20space

[136] NASA, *The Artemis Accords: Principles for Cooperation in the Civil Exploration and Use of the Moon, Mars, Comets, and Asteroids for Peaceful Purposes*, October 13, 2020, https://www.nasa.gov/specials/artemis-accords/index.html.

[137] Joshua Posaner and Matt Berg, "'Space Aficionado' Kamala Harris Aims for Moonshot Presidency", *Politico*, August 5, 2024, 5:47 a.m. CET, https://www.politico.eu/article/kamala-harris-moonshot-presidency-donald-trump-us-elections-2024-space-race-china-moon-lunar/.

[138] U.S. Department of State, *A Strategic Framework for Space Diplomacy*, 2022, https://csps.aerospace.org/sites/default/files/2023-05/Space-Framework-Clean-2-May-2023-Final-Updated-Accessible-5.25.2023.pdf

NASA, *List of Signatories of the Artemis Accords*, accessed 10/19/2024, https://www.nasa.gov/specials/artemis-accords/index.html.

are being presented as open to all who share principles of peaceful use, transparency, and interoperability, also reassuring allies and partners that US space commitments are enduring. For example, in NATO, the US has worked to integrate space into alliance planning – continuing a process that started in 2019 when NATO declared space an operational domain, also deepening cooperation with allies, in contrast to Trump's occasionally transactional approach.

In short, Biden's international engagement can be characterised by multilateralism and consensus-building based on re-engaging the UN on space security and expanding alliance cooperation. Thus, the Biden administration's tactic is to lead by example and pressure by gathering a large coalition in Artemis and at the UN, posing weight behind norms that isolate the behaviour of space aggressors.

**Attitude towards norms and arms control:** Perhaps the most distinctive element of Biden's space policy is the renewed emphasis on establishing new and expanded legal principles governing space behaviour and its limits, also by pursuing arms control measures to constrain destructive activities in space. Although it was not able to enter into new formal treaties due to both the previous maximalist stance and the evolved geopolitical scenario, the Biden administration demonstrated an active commitment towards international cooperation through international actions dedicated to building a normative momentum. One of the greatest examples of this effort was made in April 2022 when Vice President Harris announced a unilateral US moratorium on destructive direct-ascent ASAT missile tests, an initiative started within the framework of the Open-ended group, declaring that they "jeopardise the long-term sustainability of outer space and imperil the exploration and use of space by all nations."[139] The US pledged not to conduct debris-generating anti-satellite missile tests, thus implicitly establishing a US moral high ground opposed to those of Russia and India, which have conducted these tests in 2021 and 2019 respectively, describing these tests as "reckless" and "irresponsible."[140] This voluntary moratorium was a bold demonstration of norm-setting by example, intended to spur others to join. Despite Russia and China questioning its sincerity, suggesting it was easy for the US to abstain since it had other ASAT means, the US move had a significant ripple effect. By the end of 2022, nearly a dozen countries, including allies and some unexpected countries such as South Korea, had announced their own commitment not to test debris-producing ASATs. In December 2022, to cement this emerging norm, the UN General Assembly overwhelmingly approved the US-

[139] The White House. "FACT SHEET: Vice President Harris Advances National Security Norms in Space." April 18, 2022. https://bidenwhitehouse.archives.gov/briefing-room/speeches-remarks/2022/04/18/remarks-by-vice-president-harris-on-the-ongoing-work-to-establish-norms-in-space/

[140] Ankit Panda and Benjamin Silverstein, "The U.S. Moratorium on Anti-Satellite Missile Tests Is a Welcome Shift in Space Policy", *Carnegie Endowment*, April 20, 2022. https://carnegieendowment.org/posts/2022/04/the-us-moratorium-on-anti-satellite-missile-tests-is-a-welcome-shift-in-space-policy?lang=en

sponsored Resolution 77/41, which calls for a ban on destructive DA-ASAT tests, by a vote of 155 in favour, nine against, and nine abstentions, thus cementing this emerging norm, reinforcing the role of the US as norm entrepreneur and confirming a commitment towards a non-weaponisation of outer space.[141] Only a handful of countries opposed, of which, notably, the three others with proven ASAT intercept capabilities, i.e., Russia, China, and India. However, the fact that over 155 nations backed the ban illustrates the success of US diplomacy in framing debris-generating ASATs as irresponsible behaviour contrary to the international community's interests. Even without a legally binding treaty, this strong majority vote establishes a clear normative expectation, looking to near-term benefits such as reducing the risk of Kessler syndrome and the enhancement of strategic stability by avoiding provocative tests.[142] Biden Administration effort is further cemented by the joint draft resolution S/2024/302 introduced by the United States and Japan – and supported by 65 states – to the United Nations Security Council with the aim of prioritising space security on the Council's agenda for the first time.[143] However, persistent division over the topic, mainly by West's competitors, failed to resolve the resolution due to the veto posed by Russia.

Beyond ASATs, the Biden administration has also pursued broader arms control dialogues, especially within the UN framework. It re-engaged in the CD discussions on PAROS, though those remain difficult due to consensus rules and entrenched differences shown in previous debates, actions and initiatives promoted by all the main spacefaring nations: the United States, Russia and China. Instead, more progress has been seen in the OEWG, in which the US actively participated, aimed at identifying norms and principles that could lead to future agreements. The US has submitted working papers to the OEWG detailing what behaviours are deemed threatening and which are responsible. This incremental approach – focusing on norms first – reflects Biden's pragmatic arms control strategy: achieve what is feasible now to build trust and momentum, which might later enable formal treaties when the international climate allows.

Domestically, Biden's Department of Defense also mirrored this emphasis. In July 2021, Defense Secretary Lloyd Austin issued a memorandum outlining five tenets of responsible space behaviour for US military space operations, thus being the first time the Pentagon officially codified such principles, and it was clearly meant to set an example and bolster US credibility when calling

[141] United Nations General Assembly. *Resolution 77/41*. Destructive Direct-Ascent Anti-Satellite Missile Testing. A/RES/77/41, December 7, 2022. https://undocs.org/A/RES/77/41.
[142] Mary Ann Hurtado, "UN Panel Approves Working Group on Space"
[143] Pierfrancesco Breccia, "Consiglio di Sicurezza dell'ONU e Attività Spaziali: il Veto Russo Sul Progetto di Risoluzione in Materia di Non Proliferazione" (trad: *United Nations Security Council and Space Activities: the Russian Veto on the Resolution on Non-Proliferation matter*), in *Ordine internazionale e diritti umani*, (2024), 322-331.

others out. The administration has thus woven norms into both its internal policy and external diplomacy.

Crucially, Biden's push for responsible norms is not just idealistic but also serves strategic competition aims by highlighting past differences on "how to lead" and not "whether to lead". By focusing on norms of responsible behaviours and other legal means, as well as its posture, the US isolates competitors who refuse to cooperate in space management and behaviour. The near-universal support for the no-ASAT-test norm puts pressure on China, Russia, and others to eventually follow suit or, at least, face reputational damage. This is also confirmed by some US officials, who have noted that a future administration could reverse the moratorium momentum by undoing it, even if it would entail raised tensions within and outside the US, but also risk costing the US moral high ground.[144] Hence, the Biden team's move may be seen as a way to lock the cooperative momentum politically with this moratorium, making it harder for any successor (even a more hawkish one) to abandon them completely. This approach shows a sophisticated understanding in which priority is given to norms rather than dominance, as norms are understood as means that can shape the strategic environment by constraining bad behaviour *even absent a treaty*, through international opprobrium and shared expectations.

### 2.6 – Conclusion

Firstly conceptualised and understood as a mainly civil and scientific domain, the outer space has progressively been securitised, shifting from a deliberate desecuritisation during the '50s and '60s, to the most recent examples marked by the Trump and Biden administrations, in which Space became a highly congested, contested and competitive domain. This chapter has drawn an in-depth and systematic analysis of the evolution of US space policy through the prism of strategic pendulum theory, demonstrating how this oscillation reflects deeper and more structural dynamics of American strategic governance. The deliberate interpretative vagueness inherent in the concept of "peaceful purposes" has allowed a strategic manipulation that has, in fact, legitimised a vast range of military and dual-use activities, providing a flexible, but at the same time fragile and ambiguous legal and political framework. This same vagueness allows the legitimation of different perceptions on space security and the significance of Space in the broader national security architecture, thus allowing different policy perspectives and setting the field for the successive US policy swings.

[144] Bowen and Blount, "Donald Trump's approach to US space policy could throw up some surprises, especially with Elon Musk on board", *The Conversation,* November 13, 2024. https://theconversation.com/donald-trumps-approach-to-us-space-policy-could-throw-up-some-surprises-especially-with-elon-musk-on-board-243435

Crucial to the analysis is the assumption that the US space policy is a strategic and ideational process shaped by the reinterpretation of each administration of the meaning and significance of space as a policy domain based on distinct strategic priorities and perceptions of security threats. In other words, it is not "whether to lead", but "how to lead". The four operational indicators, namely rhetorical framing, institutional innovation, unilateralism versus multilateralism, and attitudes towards arms control and international norms, all served as main tools in mapping the oscillatory dynamic that arises from the interpretations mentioned above. Each administration's distinctive approach along these indicators reveals deeper tensions and contradictions within the broader US strategic culture and its conception of global leadership-

In the current analysis, the Bush presidency was the first to be examined, highlighting an embraced maximalist posture that significantly shaped the global perception of outer space more as a domain for strategic competition in which states compete for power and supremacy, rather than a domain in which cooperative exploration is the main goal. On the other hand, the successive Obama administration was characterised by a retrenched approach aimed at recalibrating American space leadership towards international cooperation, transparency through confidence-building measures, and more restrained use of military space capabilities, also opening to treaty-based norms as long as they are verifiable. However, Obama's presidency raised the complexities of desecuritising an issue, as its options were limited by the persistent effects of previous securitisation processes and the institutional inertia resulting from prior maximalist policies, as well as the changed geopolitical scenario.

Under the Trump administration, the pendulum swung decisively back towards a maximalist approach, embedding space explicitly within military doctrines of dominance and deterrence. Institutional transformations such as the re-establishment of the National Space Council, creation of the US Space Force, and the framing of space as a warfighting domain solidified a stance that prioritised unilateral strategic autonomy and selective cooperation primarily with aligned nations. Trump's approach was an interest-driven and security-oriented approach, which explicitly undermined broader multilateral normative efforts, thus shifting towards interest-based agreements such as the Artemis Accords. Despite completely reversing Trump's structural changes was almost impossible due to deep-rooted securitisation, the following Biden administration moved its first steps towards a nuanced retrenched approach aimed at recalibrating the normative approach, thus reengaging multilateral frameworks within the broader UN framework. This was paired by a commitment to rebuild normative momentum, promoting and advancing responsible behavioural

norms both at the international and domestic levels, and setting standards in arms control through unilateral initiatives like the moratorium on ASAT testing.

The new Trump administration began in January 2025, it might be a further example of the pendulum effect by signalling renewed maximalism, although adapted to contemporary strategic realities and economic constraints, which are also the result of previous swings and international response to them. The first six months of the second Trump administration haw proven to be useful to infer that Trump's return to power will likely solidify the perception of space as a competitive domain, reiterated by substantial budgetary increases for military-related projects, major DoD prerogatives and overall readiness, robust military doctrines, also paired with a likely preference to selective partnerships, albeit some viewing the new Republican administration as a mix of maximalism and retrenchment, suggesting it could be an exception to the usual political pendulum dynamics.[145]

These oscillations, as it will be discussed in the next chapter, albeit being primarily internal, have a long-lasting effect at the international level and the broader space governance by shaping the global perception of the US, its leadership and its commitment towards international norms and emboldening adversaries to promote alternative regimes. In fact, this same strategic oscillation shown by the US significantly impacts and influences global space governance, as it alters international expectations around US commitment and introduces normative discontinuities that complicate the formation and maintenance of stable international norms applicable to the space domain. This also creates ambiguity regarding American intentions at the global level, thus undermining long-term confidence in the United States as a norm entrepreneur or credible norm-setter. Therefore, the next chapter will employ this phenomenon to delve into how the cyclical alternation between maximalist and retrenched stances erodes normative coherence.

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[145] United States Space Force, *Space Warfighting: A Framework for Planners* (Washington, DC: Department of the Air Force, 2025)
Dylan Malyasov, "US Space Force outlines strategy for future wars in orbit", *Defence blog,* April 22, 2025. https://defence-blog.com/us-space-force-outlines-strategy-for-future-wars-in-orbit/
United States Space Force, *United States Space Force International Partnership Strategy* (Washington, DC: Department of the Air Force, July 2025)
Secretary of the Air Force Public Affairs, "US Space Force unveils International Partnership Strategy to strengthen space security", July 8, 2025. https://www.safia.hq.af.mil/IA-News/Article/4236712/us-space-force-unveils-international-partnership-strategy-to-strengthen-space-s/#:~:text=The%20strategy%20emphasizes%20the%20criticality,minded%20nations

## Chapter 3 – US Oscillations and the Crisis of Space Governance

In the last quarter of the century, the United States' approach towards space governance has exhibited a recurring pendular dynamic, swinging between retrenched and maximalist presidencies, usually referred to as the pendulum effect. These pendulum swings do not occur in a vacuum; rather, they are deeply entangled with the normative order that the US itself has helped construct and sometimes disrupt. Indeed, though the pendulum is substantially entrenched in domestic politics and the US party system, it has profound effects on the stability of international norms and the broader climate of trust towards the value of such norms. When the US shows a retrenched posture, championing multilateral norms and constructively interacting in international institutions, it reinforces a coherent framework of expectations among nations. On the other hand, when the American strategic approach swings towards a maximalist approach, thus embracing a more unilateral or revisionist stance in which national dominance becomes the main issue, it can undermine those very norms it helped establish. The result is an erosion of normative coherence in space governance, where allies and adversaries alike become uncertain which rules will endure, weakening the overall predictability and legitimacy of space order and also giving space to US competitors to promote new norms which would favour their national interests or perspectives, also undermining American dominance.

This chapter, therefore, analyses how US behaviour as both a creator and violator of norms affects its leadership in space, and how this duality accelerates the fragmentation of governance, thus discursively assessing how an oscillating US strategy has influenced the space-related matters and the stability of the space governance architecture. Moreover, it reviews the concept of international norms and legitimacy, and it examines why and how great powers like the US might violate or uphold these norms. Discussing this topic, a main question emerges: is US leadership in space a force for normative coherence or a driver of normative decay? The evidence suggests it is, confusingly, both – a situation that weakens long-term governance stability. Lastly, future scenarios on space governance are discussed, taking into account the current geopolitical scenario and the growing number of actors in the space domain.

### 3.1 - The Ambivalence of US Space Leadership: Pendular Dynamics and the Erosion of Normative Coherence

The United States occupies a paradoxical place in the global space order. On one hand, it has pioneered principles such as the peaceful purposes, forged international agreements like the OST, and set standards that others follow, being the quintessential norm entrepreneur in outer space. On the other hand, the US has at times been a conspicuous norm breaker – flouting or reinterpreting rules in pursuit of its interests and charting its own course even at the cost of undermining collective norms

that it has helped to create. This ambivalence, which sees US leadership oscillating between these two roles and recalls the same oscillation pattern of the pendulum effect, lies at the heart of normative instability in space governance and shows how the international community's perception of American credibility and legitimacy fluctuates accordingly.

In this context, the concept of normative leadership is crucial for understanding the United States' role in the international order. A dominant power like the US not only wields military and economic might but also derives influence from its ability to set standards and be seen as a credible "norm maker" in the system. As sustained by IR theorists (whether realists, liberalists or constructivists), the US embedded its leadership in an extensive normative architecture by crafting multilateral institutions, promoting treaties and contributing to the development of customary international law.[146] According to Christian Reus-Smit**,** the hegemonic power sustains its dominance not only by coercing, but also through a web of rules and norms widely accepted, thus making the dominant power institutionalised.[147] In Reus-Smit's view, indeed, the United States' international power has always rested on a degree of consent by other states, which is secured by the US adhering to the very rules it helped establish.[148] In other words, Hurd points out that "state behaviour that follows legitimating rules is seen by states as legitimate, and in turn reproduces the legitimacy of the norms."[149]

Legitimacy refers to the perception by others that an action or rule is appropriate and just. A striking consensus across IR perspectives is that legitimacy enhances a great power's influence, while illegitimate behaviour reduces it. Following this logic, American actions gain international support when they are viewed as consistent with shared norms, also incurring fewer costs and provoking less backlash by revisionist or adversarial powers. On the contrary, Washington's actions can alienate allies while emboldening adversaries to challenge US leadership or the regime as a whole when it does not abide by widely held norms. For example, according to Stephen Walt, institutions like the UN can "legitimate" American power and thereby reduce resistance to US initiatives, whereas

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[146] For more information refer to:
Stephen G. Brooks and William C. Wohlforth, *World Out of Balance: International Relations and the Challenge of American Primacy* (Princeton, NJ: Princeton University Press, 2008).
Stephen D. Krasner, *Sovereignty: Organized Hypocrisy* (Princeton, NJ: Princeton University Press, 1999).
Joseph S. Nye Jr., *Soft Power: The Means to Success in World Politics* (New York: PublicAffairs, 2004).
Christian Reus-Smit, *The Moral Purpose of the State: Culture, Social Identity, and Institutional Rationality in International Relations* (Princeton, NJ: Princeton University Press, 1999).
Christian Reus-Smit, *American Power and World Order* (Cambridge: Polity Press, 2004).
Robert W. Cox, *Production, Power and World Order: Social Forces in the Making of History* (New York: Columbia University Press, 1987).
[147] Christian Reus-Smit, *American Power and World Order* (Cambridge: Polity Press, 2004).
[148] *Ibidem*
[149] Ian Hurd, "Breaking and Making Norms: American Revisionism and Crises of Legitimacy." *International Politics* 44, no. 2-3, (March 2007), 194–213. https://doi.org/10.1057/palgrave.ip.8800184

bypassing those institutions can delegitimise US aims.[150] Similarly to the neorealist theorist, Joseph Nye argues that adherence to multilateral norms amplifies US "soft power," whereas unilateralism squanders it.[151] The flip side is that "delegitimation" destabilises power: if others come to see the United States as acting unlawfully or hypocritically, US leadership is undermined. Hurd encapsulates this by stating that if legitimation supports American power, then delegitimation should destabilise it.[152] Therefore, whatever the theoretical background, it is commonly considered that the US gains when it is perceived as a legitimate leader – one that abides by agreements and acts in the "common interest" – and it loses when its behaviour appears as pure self-interest or double standards or when they are not normatively justified.

Following this logic, sudden departure from normative consistency by the dominant actors can be highly damaging, whether for the state's role, the norm itself or the overall system of norms and governance. According to Stephen Krasner, many international pledges are instances of "organised hypocrisy," wherein states rhetorically espouse norms but selectively violate them when vital interests are at stake.[153] A few times we have seen the case, as the preemptive attack against Iraq or the bombardment of Serbia during the Balkan wars. While some degree of hypocrisy is ubiquitous in diplomacy, repeated and glaring inconsistencies by a leading power erode its credibility. Allies begin to doubt whether the hegemon will uphold commitments, and adversaries – but also the commonly defined norm antipreneurs – seize on these lapses to delegitimise the leader's moral authority, feeding into what scholars of hegemony identify as a crisis of legitimacy in the liberal international order. Indeed, if the order's principal guarantor is seen as unreliable or opportunistic in its use of norms, secondary states may either defect from that order or become less willing to follow its lead. Moreover, revisionist powers like Russia and China might try to exploit these moments by both delegitimising the role of the US – intended as the dominant power – by pointing out their inconsistencies, thus justifying their violations; and proposing alternative governance models, as seen in the case of the PPWT, both looking to undermine norms that threaten their interests or values. According to Hurd, challengers to hegemony actively seek to "undermine its bases of legitimation," and the hegemon's self-inflicted normative incoherence further challenges legitimation.[154]

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[150] Stephen M. Walt, "Keeping the World 'Off Balance': Self-Restraint and U.S. Foreign Policy." in *America Unrivaled: The Future of the Balance of Power*, edited by G. John Ikenberry, (Ithaca, NY: Cornell University Press, 2002), 121-154
[151] Joseph S. Nye, *The Paradox of American Power: Why the World's Only Superpower Can't Go It Alone* (Oxford: Oxford University Press, 2002)
[152] Ian Hurd, "Breaking and Making Norms: American Revisionism and Crises of Legitimacy." *International Politics* 44, no. 2-3, March 2007, pp. 194–213. https://doi.org/10.1057/palgrave.ip.8800184
[153] Stephen D. Krasner, *Sovereignty: Organized Hypocrisy* (Princeton, NJ: Princeton University Press, 1999).
[154] Hurd, "Breaking and Making Norms: American Revisionism and Crises of Legitimacy." 194–213.

The oscillation of US space policy between maximalist and retrenchment phases has progressively eroded the normative coherence of global space governance, also destabilising the alignment between the principles the United States espouses, the policy instruments it employs, and the international venues and frameworks it engages. Normative coherence can be understood as a stable harmony of norms and actions across these dimensions – a consistency that lends credibility to leadership.[155] In the ideal state, the US space policy would show a durable alignment of its stated principles (e.g. commitment to "peaceful purposes" and rule of law in space), its instruments and behaviors (national policies, treaties, diplomacy), and the institutions through which it acts (treaties like the OST, multilateral forums like COPUOS, as well as informal codes and allied practices), thus creating a predictable normative environment where other states' expectations are stable. However, the American strategic "pendulum" injects inconsistency that undermines this alignment, with commitments that prove time-inconsistent, signals to allies and adversaries contradict each other, and credibility that suffers over time. Each reversal leaves a residual effect, intended as a form of path-dependence, that makes it harder to revert to a prior norm; instead, *vacuums* and contradictions accumulate, opening space for rival narratives and *lawfare* tactics to flourish.

Therefore, when US leadership hews closely to the norms it helped create, for example, by championing multilateral initiatives and adhering to treaty commitments, it reinforces a coherent framework of expectations among nations. On the contrary, when Washington prefers an assertive unilateral posture, not abiding by its own rules, it risks rupturing the previous framework through which the US leadership stems. The result is a form of normative whiplash in which allies and adversaries struggle to discern which rules or assurances will endure, and the overall legitimacy of the space governance order is weakened. As noted previously, however, legitimacy plays a crucial role in defining international equilibrium, since great powers derive influence from being seen as legitimate norm-setters, which requires consistency between their actions and the accepted rules. Therefore, when the United States behaves inconsistently, as a result of the pendulum effect by which it extols norms in one period and disregards them in another, it loses the legitimacy from which its leadership stems. In Stephen Krasner's terms, such behaviour eases opponents' accusation of US "organised hypocrisy," or, in simpler words, that the hegemon's normative pledges are opportunistic. Repeated swings thus corrode the perception that the US abides by a stable set of principles, encouraging other states to question US commitments and hedge their bets, whether the US approach is a maximalist or a retrenched one. Therefore, the credibility gap grows, and both allies and

[155] Noele Croosley, "Conceptualising Consistency: Coherence, Principles, and the Practice of Human Protection", *Global Responsibility to Protect 12, 4*, 2020, pp. 440-463, doi: https://doi.org/10.1163/1875-984X-01204010

adversaries are affected by such a gap. Indeed, allies doubt whether Washington will uphold its promises tomorrow if it finds them inconvenient today and also if their commitment will be the same in the next administration, while adversaries seize upon US inconsistencies to delegitimise American leadership, painting it as hypocritical or untrustworthy, with the possibility of promotion new governance or legal structures that may enjoy international trust. This loss of confidence is not easily restored by a subsequent policy swing in the opposite direction, as each oscillation instead layers on a new source of scepticism. Over time, the strategic pendulum produces a net loss of normative coherence – a kind of entropy in the normative order.

Given this context, one might ask: can the United States simultaneously act as a norm entrepreneur and a norm breaker without entirely undermining its leadership role? As the most relevant theory in this regard, the constructive theory suggests the hegemonic power might exploit the norm-breaking as a strategic gambit aimed at reshaping the normative order to its advantage – effectively "breaking and making norms" in tandem.[156] The US might deliberately break a status quo norm it views as unfavourable or obsolete and then invest in legitimating a new norm better aligned with its interests and values. Hurd illustrates this pattern with the doctrine of preemptive self-defence in the early 2000s: the US openly challenged the old norm against unilateral preemptive force, subsequently articulating and advocating for a new norm justifying preventive war in the context of the war on terror.[157] A parallel might be drawn in the space domain, where the US has contested the traditional understanding of space as a global commons and its peaceful use and exploration, while promoting new norms of responsible behaviour with the expectation that, over time, this norm would gain international acceptance.

However, this strategy, which might be seen as advantageous for Great Powers, carries risks as well. As Hurd cautions, attempts to simultaneously break and establish norms can provoke crises of legitimacy on multiple fronts: the norm itself, the US authority and the entire normative and governance system in question.[158] For what concerns the norm, the old norm may be delegitimised more rapidly than the new norm gains traction – thus highlighting the *timing* issue – thereby creating normative *vacuums*; secondly, US authority itself may be undermined if international actors perceive its actions as illegitimate or self-serving; and ultimately, these dynamics can destabilise the entire normative and governance system.[159] Such crises, while threatening stability, also reveal the

[156] Scott N. Romaniuk and Francis Gore, "Norms, Norm Violations, and IR Theory", in *E-International Relations*, November 15, 2018. https://www.e-ir.info/2018/11/15/norms-norm-violations-and-ir-theory/
[157] *Ibidem*
[158] Ian Hurd, "Breaking and Making Norms: American Revisionism and Crises of Legitimacy."194–213.

[159] *Ibidem*

productive and destructive sides of normative power, since breaking an old norm can clear the way for new norms, but it can also erode the normative structure that underpins global order. The space domain provides a poignant example of these risks materialising: the longstanding norm of treating space as a conflict-free commons is visibly eroding, US leadership in the domain is increasingly questioned internationally, and the overall space governance architecture is becoming fragmented as a result of these tensions, furthermore, this normative *vacuums* risk catalysing a fragmented or multipolar order, as other actors step in to promote alternative rulesets or governance models.

The above dynamics illustrate how normative coherence is not only disrupted in the short term but also structurally eroded by oscillating US behaviour. Three interlinked mechanisms can be identified by which this erosion occurs: (1) a credibility gap leading to hedging and forum-shopping by other states; (2) a "negotiation boomerang" effect wherein US norm violations are used against it in multilateral settings; (3) normative emulation and opportunism by rival powers filling the void with their preferred norms; and (4) lock-in effect.

1. Credibility Gaps and Hedging**:** Sudden reversals in US normative posture produce a credibility deficit that disincentivises trust and cooperation. Allies and partners, uncertain whether U.S. commitments will endure beyond the next election cycle, become more cautious in aligning too closely with U.S. initiatives. This can manifest as hedging behaviour – for instance, states signing on to the Artemis Accords may simultaneously keep channels open to China's parallel lunar project or insist that Artemis commitments remain politically binding to guard against future US withdrawal. By doing so, the inconsistency in US policy encourages a form of forum shopping in which nations take their normative pursuits to whatever venue seems most stable or advantageous at the time. In short, the pendulum swings create inconstancy that undermines the United States' reliability as a norm leader. This credibility gap not only harms US influence but also fragments the process of norm-making: rather than coalescing around one clear agenda, stakeholders scatter into different initiatives and align with multiple powers, reducing coherence across the governance landscape, as deeply described in the next sub-chapter (3.2).

2. Negotiation Boomerangs and Delegitimation**:** When the United States breaks or ignores norms that it itself promoted, it arms its competitors with powerful arguments to block multilateral progress or advance alternative regimes, also delegitimising the US leadership. Therefore, every time the US oscillates into norm-breaking behaviour (or is seen to prioritise self-interest over agreed rules), it gives adversaries a diplomatic *veto weapon* – the ability to

say “we cannot proceed because the US does not practice what it preaches,” affecting American leadership in multilateral law-making for space

3. Normative Emulation and Opportunism**:** When US leadership falters or reverses, it creates a governance *vacuum* or opportunity that other actors have been quick to fill with their own initiatives. A further mechanism is that rivals not only block US norms – they replace them with their own or mirror the American violations to level the field. US inconsistency, indeed, may give cover for these powers to assert their preferred norms and behaviours as legitimate, creating open season on normative leadership as no single vision is dominant, and every major actor is advancing its own normative narratives in competition with the others. Moreover, rivals may deliberately mimic US normative gambits to justify their action by practising what is legally defined as norm shopping, i.e., states pick and choose which global norms to champion and which to quietly ignore.

4. Lock-In Effect or Entrenchment of Commitments: Once an alternative regime is created or established, either expression of maximalism or retrenchment tends to persist, even if the strategic pendulum swings back. Indeed, once any form of decision, such as the establishment of a new institution, the promotion of new standards or the convergence towards a new approach, tends to become sticky, raising the cost fo reconvergence and entrenching fragmentation, as coalition or individual states seek to transpose their in-house norms into any later universal deal rather than abandon them.

Although it might seem a momentary incoherence, the cumulative outcome of these mechanisms is not just momentary incoherence, but lasting fragmentation, fostered, accelerated or originated by this inconsistency. Indeed, trust in the US as a steward of the commons has diminished, and with it the willingness of others to defer to US-led processes and initiatives, also giving to competing norms, some of them fundamentally incompatible, to fill the normative *vacuums* left by oscillatory US policies, sharply increasing the cost of coordination when key players cannot agree on basic principles or when they doubt each other’s sincerity. What might have been a smooth evolution of global space governance has turned into a fractured landscape of contested norms. The erosion of normative coherence is thus path-dependent: once fractured, it is hard to rewind the clock. Each swing of the pendulum leaves behind institutional choices (or deadlocks) that set states on divergent paths. For example, once some countries have aligned with Artemis and others with ILRS, even a future US return to a purely multilateral approach cannot easily undo the fact of two parallel lunar camps, or it cannot undo the project without carrying a risk to delegitimise the US position further. In the security realm, once countries like India have

conducted ASAT tests and not joined the moratorium, the norm against ASATs will be far harder to universalise later. Thus, the pendulum has legacy effects.

### 3.2 – Political Pluralism and the Fragmentation of Space Governance

The decline of normative coherence in space governance has gone hand-in-hand with the rise of legal pluralism or a decentralised system of governance: a condition where multiple parallel rule-systems and institutions govern behaviour in outer space, without a clear hierarchy or full interoperability.[160] As US leadership oscillated and the old consensus frayed, the result has been a proliferation of regimes – from hard law treaties to informal agreements and industry standards – that sometimes overlap, sometimes conflict, and often leave critical gaps. In theory, pluralism need not equate to chaos, as different legal approaches can coexist and even complement each other in a complex domain. Indeed, scholars of global governance note that a degree of pluralism is inevitable in a globalised world, giving actors flexibility to address issues at different levels.[161] In the space context, one could argue that the mosaic of treaties, resolutions, and private norms is a natural evolution responding to new technology and players, and in particular, the ever-increasing nationalisation and privatisation of the space sector.[162] However, the character of the current pluralism is highly fragmentary, largely because it has emerged not from a deliberate, coordinated design but from strategic and reactive moves – often aimed at avoiding constraints or filling voids left by multilateral failure.[163] In other words, when legal pluralism is driven by oscillation and norm avoidance (rather than conscious regime-building), it tends to produce regimes that are siloed or even at odds with each other.

By legal pluralism, we refer to both the vertical and horizontal diffusion of normative authority in the governance system. Vertically, rules for space activities now emanate from multiple levels: international hard law (treaties with binding force), international "soft law" (non-binding guidelines, UN General Assembly principles), various bilateral or minilateral agreements, national legislation, and even self-regulatory industry practices. No single level fully governs space – authority is fragmented among them. Horizontally, we see the emergence of parallel rule frameworks led by different actor coalitions, thus establishing what is defined as polycentric governance, i.e. "a decentralised governance in which there are multiple independent centres of decision-making with at

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[160] Eytan Tepper, "The Big Bang of Space Governance: Towards Polycentric Governance of Space Activities," *New York University Journal of International Law and Politics* 54 (2002): 485–558.
[161] Martti Koskenniemi and Päivi Leino-Sandberg, "Fragmentation of International Law? Postmodern Anxieties," *Finnish Yearbook of International Law* 15 (2004): 553.
Alban Guyomarc'h, "Property on Space Resources: The Search for a Terminology," *Journal of Law, Market & Innovation* 2, no. 2 (2023): 71–100.
[162] *Ibidem*
[163] Tepper, "The Big Bang of Space Governance: Towards Polycentric Governance of Space Activities", 485-558

least partial overlap in jurisdictions".[164] Instead of one universally accepted regime, there are multiple clusters of norms with different memberships and also different governance centres that are not the same in terms of legal status and power of influence.[165] For example, the US-led Artemis Accords and the Chinese-led ILRS initiative represent distinct normative clusters for lunar activities, as can be inferred regarding resource exploitation, since some states adhere to the Moon Agreement's vision, while most follow only the Outer Space Treaty and perhaps their own national laws.[166] This polycentric situation, also referred to as "global legal pluralism", reflects the broader fragmentation of the international order.[167] Importantly, proponents of pluralism, as well as regime complexes and fragmentation, argue it is not necessarily harmful: if managed well, it could allow innovation and efficiency by letting different groups tackle different issues at different levels.[168] In our case, however, pluralism has largely been unmanaged. As noted by Roger G. Harrison, while discussing American attempts to establish norms in space, sacrificing specificity to consensus, the US might risk creating a regime of non-binding, qualified, and/or vaguely-worded "norms" that can undermine rather than increase stability in space.[169] The oscillation of US strategy created openings and incentives for rival or narrower regimes, leading to a patchwork rather than an orchestrated tapestry. The core risk is that these parallel regimes do not fully interoperate or align in values, leading to norm collisions and enforcement gaps.

Space governance today is best described as a polycentric, heterarchical system in which no single forum sits at the apex, and authority is distributed across multiple "governance centres".[170] For example, main governance centres, with no ambition to be exhaustive, are the UN-COPUOS, UN-OOSA, First Committee/CD, ITU, UNIDROIT, regional bodies like APSCO, expert groups, NGOs such as SWF/IAASS, and an increasingly influential epistemic community.[171] UN-COPUOS remains the most inclusive forum and UNOOSA the main hub, but neither functions as a hierarchical apex.

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[164] *Ibidem*
[165] *Ibidem*
[166] Maria Manoli, "The Architecture of Authority in Global Space Governance: The Moon Agreement as a Deconflicting Mechanism of Space Activities" *Utrecht Law Review* 20, no. 1, (2022) 100–113. https://doi.org/10.36633/ulr.974
[167] Guyomarc'h, "Property on Space Resources: The Search for a Terminology", 71-100.
[168] Robert O. Keohane and David G. Victor, "The Regime Complex for Climate Change," *Perspectives on Politics* 9, no. 1 (March 2011): 7–23.
Jonathan I. Charney, "The Impact on the International Legal System of the Growth of International Courts and Tribunals," *New York University Journal of International Law and Politics* 31, no. 4 (1999): 697–700.
Gerhard Hafner, "Pros and Cons Ensuing from Fragmentation of International Law," *Michigan Journal of International Law* 25, no. 4 (2004): 849–850.
[169] Roger G. Harrison, "Key Points," in *Space and Verification, Vol. I: Policy Implications* (Eisenhower Centre for Space and Defense Studies, 2010), https://swfound.org/media/37101/space%20and%20verification%20vol%201%20-%20policy%20implications.pdf.
[170] Tepper, "The Big Bang of Space Governance: Towards Polycentric Governance of Space Activities", 485-558
[171] *Ibidem*

Instead, issue-specific fora and professional standards generate guidance, "building blocks," and operational manuals, with some sub-fields tightly regulated (radio frequency allocation) while others remain fragmented and contested (security and resources/mining). Following Tepper's analysis of today's space governance architecture, several major normative clusters or governance centres can be observed, each with its own logic and participants. The most relevant, for both their influence and role in the space domain, are:

- Security and Arms Controls: Here, the pluralism is both vertical and horizontal, with issues scattered, multiple and partial regulations and fora. The OST's minimal arms control clauses and the historically established strategic ambiguity over its interpretation have splintered the debate into two opposing tracks. One track is the decades-old push by Russia and China (with support from the Non-Aligned Movement) for a legally binding hardware-centred treaty to prevent an arms race in space, discussed within the UN fora, concretised in their draft PPWT proposals. The other track is the US and allied preference for voluntary norms and unilateral measures addressing space threats in a piecemeal fashion, rather than sweeping bans, although with some openness towards a treaty-based regime expressed during retrenched presidencies, as shown by Obama.

  Because consensus has been elusive, the formal UN disarmament machinery produced no treaty; instead, a patchwork of partial measures has arisen. For instance, since 2019, a number of states (led by Russia) have pledged "no first placement of weapons in outer space" in UNGA resolutions – a political commitment, not universally accepted. On the other side, in 2022, the United States launched a campaign for a voluntary moratorium on destructive ASAT tests, which quickly gained support from two dozen countries and was affirmed in a UN resolution. Simultaneously, the United Kingdom spearheaded a UN (OEWG on reducing space threats) with broad participation, but as of 2023, deep divisions on substance, with Western countries focusing on behaviour norms, whereas Russia and China continue to insist that only a ban on weapons (like the PPWT) would suffice.

  Thus, the security domain features duelling normative approaches: one informal and behaviour-based, championed by the U.S. and one formal and hardware-focused, championed by its strategic rivals. As noted, Russia and China use the existence of US space military programs to argue that the voluntary norms are inadequate or insincere, while the US and allies point to continued ASAT testing and on-orbit incidents by Russia/China to argue that a simple treaty banning "weapons in space" would be meaningless without responsible conduct norms. The upshot is institutional fragmentation: discussions on space security happen in

parallel at the OEWG, the CD, the UN First Committee, and even the UN Security Council (which saw brief debates on space threats), also including unilateral initiatives with no binding value, each forum with different groupings and little convergence. There is no single authoritative institution or document; instead, a quilt of resolutions and proposals, none commanding universal adherence.[172]

- Resources and Lunar Governance**:** The discovery, exploitation and utilisation of space resources is one of the main competing issues related to outer space. This is another realm in which pluralism and fragmentation are main characteristics of the systems, and competing regimes exist on how to govern human activities on the Moon and other celestial bodies. Although the OST remains the common foundation, by providing a ban on territorial sovereignty on the Moon and the freedom of use for all states, there is no single agreed mechanism for handling resource rights, especially after the failure of the Moon agreement.

  Into this void, fragmentation and pluralism took the characteristics of national laws and minilateral agreements, mainly championed by Western powers. Indeed, while multilateral and international fora lacked the ability to settle the issue, national laws started to play an important role. The US (2015), early followed by Luxembourg (2017), the United Arab Emirates (2019) and Japan (2021), passed national legislation legalising private space mining, explicitly granting companies the right to own extracted materials.[173] These laws converge in their basic approach, arguably creating an emerging norm among a subset of states that resource extraction is lawful and property rights can be recognised, so long as no claim to territory is made. On the international side, the Trump administration promoted the Artemis Accord, which endorses similar principles – including the controversial notion of "safety zones" around lunar installations to prevent interference, which sceptics fear could amount to de facto exclusive zones.[174] The Artemis coalition's stance is that these measures implement the OST in good faith and that a full treaty is not urgently needed, while states outside this coalition (notably Russia, China, and many members of the Group of 77 developing countries)

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[172] Francisco Del Canto Viterale, "Global Governance of the Space System: A Multilevel Governance Analysis", *Systems* 12, no. 9 (2024): 318 https://doi.org/10.3390/systems12090318

[173] *U.S. Commercial Space Launch Competitiveness Act*, 51 U.S.C. § 51302 (2018).
Loi Du 20 Juillet 2017 Sur L'exploration Et L'utilisation Des Ressources De L'espace, [Journal Officiel Du Grand-Duche´ De Luxembourg, Law On The Exploration And Use Of Space Resources] July 20, 2017, https://perma.cc/3HLG-783Y.
Jinyuan Su, "Legality of Unilateral Exploitation of Space Resources under International Law", in *International and Comparative Law Quarterly* 66 (2017): 991- 992

[174] Maria Manoli, "The Architecture of Authority in Global Space Governance: The Moon Agreement as a Deconflicting Mechanism of Space Activities", 100-113.

view this approach with suspicion, accusing the Accords of being US-centric and interest-driven. They either champion the Moon Agreement vision of treating space resources as the "common heritage of mankind" or, at a minimum, call for new global dialogue on resource governance under UN auspices rather than accept rules set by a US-led club.[175] In response to Artemis, China and Russia unveiled their joint ILRS plan, which includes not just missions but an intent to formulate their own guiding principles, offering an inclusive alternative that does not require partners to endorse US-devised principles.[176]

Importantly, the Artemis Accords, as a prominent example of horizontal fragmentation, were prepared, negotiated, and adopted outside of UN-COPUOS and outside a multilateral context, thus meaning that an Artemis country might consider a certain resource use legitimate under their agreed principles, while a non-Artemis country might vehemently protest it as unlawful absent a UN mandate. The lack of a unifying framework raises concerns about future disputes – imagine contention if a Chinese-led ILRS facility and a US-led Artemis base both operate on the Moon under different "rules of the road." Thus, in the resources domain, we see legal pluralism starkly: national vs international, Artemis vs ILRS, treaty vs soft-law vs bilateral – multiple layers attempting to govern the same activities, without a clear, binding reconciliation among them.

The emergence of these parallel and uncoordinated regimes is not coincidental – it correlates with the periods of U.S. retrenchment and assertiveness, and the uncertainty generated between them. By considering the four indicators mentioned in section 3.1, we identify several dynamic effects of the US policy pendulum that have actively driven pluralism, decentralisation and fragmentation:

- **Credibility gaps and Hedging**: Oscillations in U.S. posture have repeatedly injected uncertainty about the durability of American commitments, encouraging partners to hedge against policy whiplash rather than bandwagon. The arc from the 2006 National Space Policy's insistence on "freedom of action" and opposition to new legal restraints, to the 2010 turn towards UN-centred transparency and confidence-building measures, to the 2018–20 push for national/minilateral templates (SPD-3 on space-traffic management; the creation of the US Space Force; the Artemis Accords; and the 2020 executive assertion that outer space is "not a global commons") signalled to allies that the instrument and venue of US leadership

[175] *Ibidem*
[176] Eduardo Baptista, "China lunar chief accuses US of interfering in joint space programmes with other nations", *Reuters*, April 23, 2025. https://www.reuters.com/business/media-telecom/china-lunar-chief-accuses-us-interfering-joint-space-programmes-2025-04-23/#:~:text=interfering%20in%20our%20cooperation%20with,without%20elaborating%20on%20the%20interference

are contingent on electoral cycles. Rational states responded by hedging: endorsing consensus soft law, like debris mitigation and the 2019 LTS guidelines while avoiding over-exposure to any single US pathway; joining Artemis for access and interoperability gains yet keeping channels open to non-Artemis partners and fora; or insisting that commitments remain politically rather than legally binding to retain exit options should Washington pivot again. The cumulative effect of this hedging is dispersion in which states distribute their bets across different layers, from UN guidelines to national legislation on resources, from military exploration coalitions to parallel SSA/STM architecture. Discussing governance, these credibility gaps reconfigure cooperation into a lattice of partially overlapping alignments that are resilient to US persuasion but resistant to universal consolidation.

- **Negotiation Boomerangs and Delegitimation**: Each American swing away from earlier commitments furnishes competitors with a ready-made rhetorical toolkit to obstruct US initiatives and to recast the debate on terms favourable to them. When Washington champions non-binding behaviour norms in the First Committee or an OEWG, Russia and China can, and do, invoke years of US opposition to their PPWT drafts, the demise of the EU-led International Code of Conduct process, and unilateral moves on space resources to argue that the United States prefers rules that it writes and flexibility that it retains. For example, the Head of Delegation of the Russian Federation, Konstantin Vorontsov, declared the US pursuit of responsible behaviour is “divisive” and incapable of reaching PAROS objectives, also refusing the non-binding principle.[177] This is also supported by the Chinese counterpart, which placed emphasis on the role that the UN should play in preventing the weaponisation of space.[178] Conversely, when Washington raises verification and coverage flaws in hardware-ban proposals, critics answer that US military institutionalisation in space and declaratory doctrine about preserving freedom of action undercut the credibility of its behavioural track, as stated by Vorontsov in its 2022 critique of the US within the OEWG.[179] These boomerangs do not depend on the technical merits of any single file; they work politically by casting doubt on US consistency and good faith, lowering the appetite of undecided states to pay the costs

[177] Statement by Konstantin Vorontsov, Head of Delegation of the Russian Federation, at the fourth session of the Open-ended Working Group established by the UNGA Resolution 76/231 under Agenda Item 8 “Other matters” September 1, 2023, Geneva
Statement by the Representative of the Delegation of the Russian Federation in explanation of vote on a draft decision "Open-ended working group on the prevention of an arms race in outer space in all its aspects" L.61/Rev.1 in the First Committee of the 79th session of the UNGA, New York, 5 November, 2024
[178] General Remarks by H.E. Amb. LI Song at the First Session of the Open-Ended Working Group on reducing space threats through norms, rules and principles of responsible behaviours. 2023
[179] Statement by the Head of the Russian Delegation, K.V.Vorontsov, at the second session of the Open-Ended Working Group established pursuant to UNGA resolution 76/231. Septemebr 12, 2022.

of alignment. More recently, in 2024, the Russian Federation justified its veto against the US-Japan reiteration of the prohibition to deploy weapons of mass destruction in space by declaring that the scope of such declaration is too narrow and wider efforts are required, thus delegitimating American refusal to enter into non-verifiable binding agreement and posing itself as the true promoter of space non-weaponisation.[180] The Chinese representative has posed similar stances by sustaining the Russian approach towards wider efforts to focus on broader weaponisation rather than only weapons of mass destruction.[181]

The result is a negotiation pattern of parallel monologues in which behaviour-based proposals gain traction in some resolutions and working groups, while treaty-first narratives dominate agenda-setting in disarmament fora, with each side citing the other's inconsistencies to pre-empt compromise. The same dynamic applied to arms control can be applied to civil governance of space, especially for issues such as deconfliction "safety zones" around surface operations described with the Artemis Accords, which can be framed by opponents as process-biased, prompting calls to "return to" inclusive UN forums before such ideas "harden." In short, pendular signalling equips adversaries with arguments that delegitimise American leadership precisely where coalition breadth matters most, entrenching procedural stalemates and sustaining institutional bifurcation.

- **Normative emulation and Opportunism**: When US leadership falters or reverses, it creates a governance vacuum or opportunity that other actors have been quick to fill with their own initiatives. For instance, the US retreat from multilateral norm-building in the late 2000s and 2010s under the Bush presidency, characterised by the missed push of the ICoC to completion and the total refusal of the US to new treaties, emboldened other powers and groups to put forward rival frameworks. An example is the Sino-Russian efforts in promoting the PPWT treaty from 2008 onward, since they stepped into a role the US chose to abandon ( the leader's role in space arms control negotiations), thus advancing their own preferred rules. Furthermore, this initiative began just after the Bush administration's ASAT test, allegedly in response to the previous Chinese one. More recently, the unilateral initiative of the Artemis Accords, promoted under the Trump Administration outside traditional or multilateral channels, opened the doors to alternative orders and initiatives, such as the Sino-Russian ILRS. Indeed, by bypassing the inclusive UN process for lunar governance and launching the

[180] Edith M Lederer, "Russia defends veto of UN resolution to prohibit nukes in outer space, urges vote to ban all weapons", *AP News*, May 7, 2024. https://apnews.com/article/un-russia-veto-nuclear-weapons-space-us-35610238289a460bfabd04417e414f10

[181] Remarks by Ambassador Fu Cong at the UN Security Council on the Draft Resolution on Outer Space Security, April 24, 2024. https://un.china-mission.gov.cn/eng/hyyfy/202404/t20240425_11288792.htm

Artemis Accords, the US inadvertently signalled that foundational norms were up for grabs, thus implicitly allowing China and Russia to respond by solidifying their partnership and inviting countries to choose sides in a new astropolitical alignment.[182] Observers have begun to describe this as an emerging "astropolitical alliance" structure, where states might align with either a US-centric or China-centric space bloc.[183] In other words, the pendulum swing towards maximalism (in Artemis' case, a form of normative maximalism favouring US rules) directly triggered a mirrored structure by the opposing camp. Absent US oscillation, it's conceivable that a unified global effort (perhaps under COPUOS) might have addressed lunar governance or at least a new lunar project under new auspices; instead, the swing created duelling regimes. Similarly, on security, the U.S. long neglect of binding measures opened the door for Russia and China to dominate the discourse with their treaty proposals, thus effectively setting the agenda in the CD, even if those talks remain deadlocked. This gateway effect has encouraged a bipolar narrative, with increasing references to a "new space race" or a normative Cold War, which further legitimises the fragmentation as somehow inevitable. In short, each US swing away from cooperative norm leadership widened the lane for others to establish separate governance mechanisms aligned with their strategic interests.

- **The Lock-In Effect**: Despite the American strategic approach swings back towards a different approach, actions undertaken, as well as alternative or minilateral regimes created, tends to persist and deepen in their effects and influence, in a form of institutional "lock-in." Indeed, they acquire constituencies, infrastructures, and legal artefacts that persist regardless of subsequent US swings. For example, the states that joined the Artemis Accords are now invested in that framework; they have formalised cooperation agreements, held working group meetings, and even adjusted national laws, as Japan did with the 2021 Space Resources Act. If a future global treaty on lunar mining were tabled that contradicts the Artemis principles, those states would likely lobby to ensure the treaty accommodates the Accords, rather than abandon the Accords. Likewise, China's ILRS partners, though fewer, have a stake in the success and will carry forward that cooperative model irrespective of US policy changes. The existence of parallel commitments thus makes it costly to reverse course, thus making countries hesitant to undermine agreements they have already signed by suddenly subjecting themselves to a new, potentially conflicting regime. Lock-in can be seen in the arms control

[182] Max Polyakov, "Moon Races: How New Political Alliances Are Being Formed". In *Max Polyakov Space*, March 21, 2024. https://maxpolyakov.com/moon-races/#:~:text=On%20the%20American%20side%2C%20there,ILRS
[183] Mustafa Bilal, "The Advent of Astropolitical Alliances", *SpaceNews*, January 8, 2024. https://spacenews.com/advent-astropolitical-alliances/#:~:text=As%20the%20Artemis%20Accords%20and,to%20pick%20an%20astropolitical%20alliance

domain, too, with the Biden presidency locking the US ASAT test capabilities with the promoted unilateral moratorium. While normatively positive, the initiative could lock in a divide whereby a set of Western-aligned states renounce ASAT tests and others do not. The same logic may be applied to adversaries and non-allied nations, making a universally binding ban even harder, since nations such as India and China did not join the moratorium and may see little benefit in doing so, since their geopolitical rivals already do so. They might instead choose to enjoy the asymmetry.

Lock-in also occurs through path dep*endency,* both at the legal and institutional levels. For example, if the legal principle of "safety zone" becomes standard practice among half the world's space actors, any future global negotiation will likely have to include a version of that concept, thus setting the terms of future discussion, also risking constraining options for reconvergence. The more each camp solidifies its rules (through MOUs, domestic laws, technology standards, etc.), the wider the gulf the international community will have to bridge to achieve a single regime.

At the domestic level, as seen with the resurgence of the National Space Council and the creation of the Space Force, the lock-in effect can influence successive administrations, whether the decision is an expression of a maximalist or retrenched stance. Despite the new administration's capability to erase previous decisions, it may be compelled by logistical, technological, political or financial issues. As previously discussed, the NSpC was reconfigured under the Biden administration to meet the presidential policy objective, reforming seats and roles within the Council. However, the Council was not cancelled but maintained as a new executive office. Same with the Space Force. Although reconfigured and reimagined, abolishing the new sixth branch would have been financially and politically expensive. Thus, what begins as tactical venue selection in a given cycle culminates in structural entrenchment: fragmented commitments that are politically costly to unwind, technically cumbersome to harmonise, and commercially inconvenient to replace, locking the regime complex into durable, partially incompatible layers.

By taking together the four above-mentioned indicators, a clear picture emerges that shows how space governance is not merely plural but is path-dependently fragmented. As pointed out in previous section, the key point is not that a layered structure exits, as it could be considered normal since the surge of actors and technological development, but that the sequencing and signalling of US leadership over the last two decades have repeatedly encouraged others to distribute their bets, contest the forum, launch counter-templates, and then entrench those partial regimes. The US strategic

oscillation results in a polycentric system whose centres of gravity form partially overlapping, and sometimes rivalrous, cluster norms, as seen in security and resource governance or increasingly in SSA/STM, without adding anything to a hierarchy or even to a layered architecture. As pointed out in the October 2021 report of the US Office of the Director of National Intelligence (ODNI), the "diversified and competitive international environment will make it more challenging for many states to maintain commitments to existing norms, establish new norms, solve global challenges, and prevent escalatory behaviours."[184] In particular, due to selective adherence to norms – or forum/norm-shopping – increased difficulty to perform norm-setting in traditional multilateral venues, increased fragmentation from consensus-based intergovernmental institutions to majority-vote formats, usually promoting localised and/or regional norms, less collective action on global challenges and greater risk of confrontation.[185]

First, credibility gaps have recalibrated the cost-benefit calculus of partners and competitors. The alternation from the 2006 insistence on "freedom of action" and opposition to new legal restraints, to the 2010 turn towards multilateral TCBMs and information-sharing, to the 2018–20 embrace of national/minilateral templates (SPD-3 on STM; Artemis; "not a global commons") signalled that instrument and venue are contingent on electoral cycles. Therefore, rational actors hedged by taking the least-cost convergence available. Second, boomerangs have made forum politics structurally adversarial. Because successive U.S. administrations promoted behaviour-based instruments while rejecting or deprioritising hardware-ban proposals, Russia and China have been able to cast Washington as a sponsor of rules it prefers and a critic of rules that might bind it. There, if this dialectic should endure, each side can cite the other's inconsistency to block any compromise, transforming the multilateral institution thought to be problem-solving fora, into fora for procedural stalemate. In civil exploration and resources, the Artemis Accords, for example, operationalise OST principles such as the deconfliction "safety zones" and offer a ready-made, like-minded path for willing states. On the other hand, however, China and Russia have responded by consolidating the ILRS as an alternative template, signalling to third states that another governance family is available. That "order selection" dynamic is the concrete expression of the opportunity structure created by oscillation: club-first rule-making invites club-counter rule-making. Fourth, lock-in converts tactical choices into a strategic structure. Once Artemis is embedded and ILRS is institutionalised, the switching costs of reconvergence rise. The same is true in security: the US-led moratorium on destructive direct-ascent ASAT tests. In operations, SPD-3 has hardened a US-centred STM/SSA

[184] National Intelligence Council. "International: More Contested, Uncertain, and Conflict Prone," in *Global Trends 2040: A More Contested World.* (Washington, DC: Office of the Director of National Intelligence, March 2021), 90-107.
[185] *Ibidem*

ecosystem (data standards, service models, bureaucratic roles) at the same time that Europe has articulated an EU STM approach; reconciling these architectures later will entail political, technical, and commercial transaction costs. The result is that even when the pendulum swings back towards inclusivity, it must now navigate through entrenched club norms and domestic institutions.

Two analytic conclusions stand out. First, in this domain, pluralism is not self-organising, and until now it has been unmanaged. Without a clear and decisive effort to layer plural regimes into a coherent order with some kind of interlocks, such as formal bridges that map how minilateral practices will be internationalised, these layers will scatter into partially incompatible tracks, often overlapping and sometimes adversarial, also allowing forum-shopping, delegitimation and counter-proposals. Second, the US oscillations' effects are asymmetric, as they lower the cost of entry for rival templates but raise the cost of exit once any club matures. Such asymmetry explains why fragmentation deepens even when major powers periodically re-embrace multilateral rhetoric.

Finally, it bears stressing that fragmentation is not solely a function of US choices. China and Russia have strategically leveraged the four mechanisms, as they have hedged, for example, supporting sustainability soft law while opposing behaviour-norm initiatives they deem "subjective"; they have deployed boomerangs by using PPWT and UNSC veto politics to paint US proposals as partial or biased; they have engaged in opportunism through the ILRS as a governance counter-order; and they have built and facilitated lock-in roadmaps, partner networks, and narratives that will not evaporate with any single diplomatic opening). But because the United States still sets much of the tempo, even if debatable, by virtue of capability, market pull, and agenda-setting capacity, the pendulum of US leadership remains the central driver of how these mechanisms unfold. If future cycles repeat past sequencing by sponsoring clubs first and bridges later, the regime complex will continue to harden into parallel orders, thus increasing fragmentation and governance disorder. If, instead, sponsors build credible interlocks between clubs and the UN system, starting with resources and STM, and consolidating behaviour-based security norms through verifiable practices, the same polycentricity that now fragments could be made to layer, thus giving some order to space governance.

### 3.3 Future Scenarios: Alternatives for Space Governance

The last quarter-century has been characterised by great changes. The end of American hegemony with a return to a multipolar system, exponential technological development, with a consequent increase in dual-use technologies in all domains and a growing private sector, a new protagonist not only on Earth, but also in the last frontier. Using the logical conclusions derived from the analysis carried out so far throughout the paper, this section would like to try to define possible

scenarios for spatial governance, in light of the changes undergone by the spatial domain and the trends that characterise it, and which, most likely, will characterise the years to come. By laying its foundations in NATO Strategic Foresight Analysis 2023 and ODNI Global Trends 2040, the scenarios will be built on two main axes: US oscillations and multilateralism.[186] In other words, the first axis represents the degree to which US administrations reverse or sustain norms, venues, and instruments in space policy. A high value implies pronounced alternation ( posture shifts on arms control, venues, or industrial policy) while a low value implies cross-cycle continuity that allows for cumulative institutionalisation, whether expression of a maximalist or retrenched posture. On the other hand, the second axis captures the degree of multilateralism or whether rules and practices are pursued through inclusive, universal fora or via minilateral clubs, coalitions, and industry standards**.** These axes reflect the thesis's main findings that oscillation shapes others' expectations about the durability of rules, while the international environment trends towards contested standards, regime complexity, and non-global formats, using such findings to foresee future scenarios that will allow analysts, theorists, and policy/decision-makers to reflect on possible outcomes and actions. Following this logic, possible scenarios would be divided into:

a) Convergent stewardship (low oscillation and universal multilateralism):

In this scenario, space governance experiences a return to a rules-based multilateral order in which cooperation plays a pivotal role, and its value is shared among major spacefaring nations. This scenario, that might be developed after a major global crisis in or generated from space, will see states trying to overcome decades of stagnation by negotiating binding frameworks based on the most pressing challenges, such as orbital congestion and security, possibly including verification mechanisms. Although in narrowly defined areas such as debris-creating ASAT tests, technical annexes on on-orbit servicing safety or any global codification of Space Traffic Management rules, COPUOS and the UN CD would likely find new life as venues for treaty-making.

This scenario will be facilitated by an external shock, such as the space crisis, and a low oscillation within the US, with a strategic posture which favours a retrenched posture, as a consequence of a renewed global multilateral approach. Thus, while a low oscillation might be locked in a maximalist stance, this scenario assumption is that it would be based on a retrenched cycle fueled by the renewed multilateral spirit and its treaty-based or consensus

[186] National Intelligence Council. G*lobal Trends 2040: A More Contested World.* (Washington, DC: Office of the Director of National Intelligence, March 2021).
NATO, Allied Command Transformation. *Strategic Foresight Analysis 2023 (SFA23*). NATO, 2023. Available at https://www.act.nato.int/activities/allied-command-transformation-strategic-foresight-work/

approach. The enabling conditions for such a renaissance are twofold. First, the external shock: a near-catastrophic collision between mega-constellations, or a series of high-profile debris incidents, creates a tipping point in public opinion and commercial lobbying, convincing governments that prevention is far cheaper than repair. Second, a durable reduction in U.S. oscillation. If Washington can demonstrate stability in its leadership role – remaining committed to universal instruments for multiple presidential cycles – partners would have fewer incentives to hedge with soft law or minilateral arrangements.

However, while this scenario may appear normatively attractive, it is perhaps less likely; it requires not only exogenous shocks but also a structural correction in US political cycles, although this thesis has shown that the case is historically elusive. Such a scenario, in fact, would be in stark contrast with two hard facts established in this thesis: the persistent US oscillation shown historically since the end of the Cold War and the entrenched incentives of rival powers to keep veto points alive.

b) Stop-Go Universalism (high oscillation and universal multilateralism):

Similarly to the previous scenario, there is a return to a consensus-based mechanism, and the need for cooperation, shared norms, and rules gains prominence. At the global level, there is a clear preference towards rules-based space governance. Despite this condition, the scenario presents high oscillation in the US posture, alternating maximalist and retrenched cycles. This scenario would see a global effort to reach some accord on the most pressing issues, making operations, traffic management, debris cleansing and other actions in outer space grounded on binding norms, or, at least, on rules shared and agreed upon in multilateral fora, especially within the UN framework. However, the swinging behaviour of the US negatively affects the role of the US as a norm entrepreneur, acting as a credibility shock. Periodic US swings towards multilateral engagement, which generate spurts of universal norm-making, are followed by reversals or deprioritisation that stall ratification and implementation, thus undermining incentives for compliance and pushing allies and third parties to hedge, as well as allowing adversaries to jeopardise the US's role. The American role as steward and leader of the normative order thus decreases, being largely affected by opponents' attacks on US consistency and coherence, as well as by the efforts made by its adversaries to fill the vacuum left by Washington. Thus, the US's retrenched efforts to promote a global and universal vision for space are hindered or pushed back by the following maximalist stances. Indeed, this scenario assumption, similarly to the previous case, is that a

maximalist stance would not hamper the US leadership in itself, but because the oscillation is experienced during a period of global preference for shared rules and cooperative approaches.

Such a scenario provides an international environment in which multilateralism persists despite US oscillation and its pendular behaviour, as preference and implementation are mediated by different structures. Preference is anchored in structural incentives such as the need of the private industry and middle powers to have an outer space regulated by universal rules instead of particular and heterogeneous norms; and normative identity, which is the preference of states to be recognised as responsible space actors, thus leveraging legitimacy for their actions. On the other hand, implementation, especially when the issue is discussed multilaterally, depends on pivotal power alignment, especially from major actors and, in space-related topics, major spacefaring nations.[187] Thus, oscillation generates a decoupling effect in which, at the global level, there is a wider preference for a multilateral approach and venues, while the capacity to deliver it is intermittent, allowing adversaries to exploit this decoupling by employing the previously discussed methods and tools.

While this scenario might seem like the current situation of space governance due to the Sino-Russian PPWT proposals and the critique of the US and their narrow attempts to limit the weaponisation of space, there is no proof that both these actors, as well as other spacefaring nations apart from the EU, will prefer a wider consensus-based approach. By saying so, this scenario remains unlikely, as has been demonstrated that rival revisionist powers benefit from American pendular posture and ever-increasing divided democracies in the enar-future.[188] Indeed, high oscillations can be exploited by adversaries to promote their competing norms and vision, thus making a wider preference for universalism very unlikely.

c) Stable clubs (low oscillation and unilateralism/minilateralism):

In this scenario, a main characteristic is the global preference or, at least, of the most prominent space-faring nations, for unilateralism or minilateralism, in which clubs, national legislation and private industry's standards are the main instruments to shape the normative order. Thus, there is a preference for increased pluralism and decentralisation, with a push towards localisation and regionalisation rather than a universal cooperative approach through multilateral intergovernmental organisations and fora.

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[187] Robert D. Putnam, "Diplomacy and Domestic Politics: The Logic of Two-Level Games," *International Organization* 42, no. 3 (Summer 1988): 427–460.
[188] National Intelligence Council. G*lobal Trends 2040: A More Contested World.* (Washington, DC: Office of the Director of National Intelligence, March 2021).

The low oscillations of the US will provide a predictable and understandable environment in which allies and third parties can be comfortable, linking themselves to a US-sponsored club, cluster or provision without risking undermining their international position. This scenario, in the long term and based on the number of states part of Western provision, would likely facilitate the transition from non-binding voluntary norms to customary international law. Moreover, in this scenario, despite a minilateral approach and the improbable development of universal binding rules, a kind of interoperability between blocs and clubs exists, especially in technical and operational issues. These conditions are needed by the industry, insurance markets and launch-licensing companies, which will set common standards to favour a safe and secure outer space to do business, favouring broadly accepted rules, although the normative order is fragmented. On the other hand, strategic security issues remain largely unresolved, with stagnant multilateral intergovernmental institutions and fora, with no binding rules and instruments to verify any attempt to weaponise space. There is no search for convergence on these issues, but clubs look to manage risks and avoid further escalation.

This scenario is similar to the fragmenting world proposed by the 2022 NATO Strategic Concept and rediscussed in the 2023 NATO Strategic Foresight Analysis.[189] The scenario built by the SFA23 foresees a low likelihood of such a scenario because of low disruption being unlikely. Indeed, their focus is that increased geopolitical competition will be pervasive and will affect every domain and issue, not only in outer space. Moreover, this analysis reiterates the low likelihood of this scenario because of the historical improbability of a scenario in which there is a low US oscillation. In sum, the current geopolitical scenario, affected by increased competition, actors and technological advancement, paired with US oscillation cycles, will highly likely "intensify around the securitisation of resources and economics, access and control of the commons and exploitation of instabilities by potential adversaries."[190]

[189] NATO, Allied Command Transformation. *NATO 2022 Strategic Concept*. Madrid: North Atlantic Treaty Organization, June 29, 2022. https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf.
NATO, Allied Command Transformation. *Strategic Foresight Analysis 2023 (SFA23*). NATO, 2023. Available at https://www.act.nato.int/activities/allied-command-transformation-strategic-foresight-work/
[190] NATO, Allied Command Transformation. *Strategic Foresight Analysis 2023 (SFA23*). NATO, 2023. Available at https://www.act.nato.int/activities/allied-command-transformation-strategic-foresight-work/

d) Competitive Co-existence in orbit (high oscillation and unilateralism/minilateralism).

In this scenario, perhaps the most likely, the governance of space mirrors and amplifies the increased competitive geopolitical environment. In this scenario, the US strategic posture experiences constant oscillation between maximalism and retrenchment, while, at the global stage, a preference for unilateralism and minilateralism takes place. Following this logic, international fora within the UN framework stagnate, while treaty-based regimes remain highly elusive. At the same time, clubs, coalitions and industry-led initiatives proliferate, setting new norms, behavioural and technical standards, often embracing and playing along geopolitical lines. Moreover, the commercialisation and proliferation of private actors and other non-governmental organisations in space exacerbate the scramble for the commons, reinforcing the preference for agile, coalition-based standard-setting, also increasing the complexity due to the surge of dual-use technologies and the possible employment of private assets in national defence strategies and or as cover for government activities. The essence of this scenario is a fragmented governance environment that is highly decentralised, polarised and polycentric, with no normative coherence, although basic cooperation for what concerns technical and some operational issues. In such a scenario, the persistence of major power rivalry entrenched mistrust in universal institutions as they fail in reaching a consensus, either on hard-security or space exploration and resource exploitation, while the recurrent US reversals undermine the US itself and the broader Western bloc, pushing third-parties to edge or looking for strategic autonomy (EU example)

As pointed out by the SFA3, which calls a similar scenario "pervasive competition", despite the need for global cooperation in facing space challenges, competition and adversarial intent of major state actors will endure amidst disruptions and will aim to shape the contest and contest the Alliance [NATO].[191] This means that while the swings recur, major spacefaring nations, especially adversarial, will exploit these inconsistencies, aiming at shaping the legal environment, undermining the US's role in space and its leadership and credibility as a norm entrepreneur and "force for good". In such a scenario, where fragmentation with no consensus exists, each blocs accuse the other of selective norm-breaking or hypocrisy, thereby reinforcing distrust in the multilateral approach and in the adversary itself. Incoherence would also likely facilitate norm-shopping by adversarial power, thus transitioning proximity operations or risky actions in space into a grey zone hard to define, to regulate and against which to counteract or establish awareness. In this scenario of "competitive coexistence",

[191] *Ibidem*

long-term stability of space is deeply eroded, although a preserved equilibrium in day-to-day operations is maintained to avoid major incidents that would be of no interest to any spacefaring nations.

After the creation of four possible scenarios used to test the role of the pendulum effect, as well as the role played by the global tendency to multilateralism, it can be inferred that the most plausible trajectory is the "Competitive co-existence." This scenario not only embraces the pendulum as a historical phenomenon that reproduces itself, creating a kind of path-dependency, but it also highlights the broader structural trends toward fragmentation, industry-driven norm-making and an ever-increasing competition among major powers (also major spacefaring nations).

The intellectual effort in developing these scenarios reveals that the pendulum effect plays a pivotal role in defining the future of the international legal order and how space would he handled internationally. Indeed, the decisive variable for the durability and coherence of governance, especially in a world characterised by a harsh geopolitical environment, is not whether the United States adopts a maximalist or retrenched stance per se, but whether oscillation persists, undermining predictability, credibility, the US's leadership and normative coherence. The scenarios, therefore, reinforce the central argument of this thesis, that is, that oscillation, by introducing uncertainty into a domain where stability and long-term commitments are indispensable, constitutes the greatest obstacle to effective, reliable, and legitimate space governance. Continuity, indeed, provides credibility, whether the international environment is favourable to universal multilateralism or like-minded-driven minilateralism. On the contrary, high oscillation contributes to eroding trust, risking one or more of the Hurd's crises of legitimacy, i.e. the crisis of the norm, the crisis of the role, the crisis of the system. In this sense, the pendulum dynamic itself is a critical structural vulnerability for the norm, for US credibility, legitimacy and leadership and for the foundations of space governance.

## Conclusion

This thesis's main objective was to define whether the United States' space policy mirrors the oscillations seen by Stephen Sestanovich in US Foreign policy, and once it was demonstrated, the effect of such swinging behaviour on Washington's role and the evolution of space governance was analysed. Therefore, the main questions that drove this analytical effort were: Does the strategic oscillation in US foreign policy, revealed by Stephen Sestanovich, apply to US Space Policy? If so, what have been its consequences for the US's role and the stability of international space governance? Furthermore, what are the global consequences of normative instability resulting from this oscillation for international arms control and broader space security? By doing so, the thesis began by appreciating the dual character of outer space as a common heritage (or global common) and arena of competition and contestation. Later in Chapter 2, this dual character has been further examined by analysing the evolution and tension between the declared "peaceful purposes" and the military imperatives that have always accompanied space activities since the '50s.

In answering these questions, the study derives its foundation from Stephen Sestanovich's pendulum theory, largely discussed in its *Maximalist: America in the World from Truman to Obama*. The former diplomat provided a powerful conceptual lens through which to interpret American foreign policy as a recurring oscillation between maximalist and retrenchment phases. In other words, he sustains that American foreign policy swings between assertive presidencies in which military commitments, increased defence budget and a "call to act" are central; and cautious administrations, where reduced overseas commitments, a more cooperative and limited posture in world affairs and reduced military budgets play an important role. Importantly, it shows that maximalist and retrenchment strategies alternate over time, albeit in modified forms that incorporate lessons learned from past mistakes, offering a structured way to understand foreign policy change. Moreover, the Copenhagen school's theory of securitisation proved to be useful as a complementary interpretive tool to understand better the rhetorical and institutional logic underpinning each phase. Indeed, the securitisation theory serves as a diagnostic indicator to identify and characterise strategic orientation as defined by the pendulum period, following the way policymakers conceptualise outer space (commons vs. strategic domain), indicating how and why policymakers construct outer space either as a normal policy issue or elevate it to a critical security priority through language. These dual theories, taken together, allowed the thesis to capture both structural patterns and discursive mechanisms of oscillation.

Applying such a theoretical lens to space policy has been an innovation of this thesis, which applied it to understand whether a US presidency was maximalist or retrenched. Methodologically, this was made possible by operationalising the way through which we understand the oscillation in four indicators, namely the rhetorical framing of space, institutional innovations, the level of unilateralism versus multilateral engagement, and attitudes towards arms control and international norms. Then, after having examined the literature review and established the theoretical framework and how the thesis will proceed methodologically, the work proceeds to apply it across US administrations from George W. Bush to Joe Biden, thereby tracing how oscillatory dynamics shaped the securitisation of space and, in turn, the stability of international governance frameworks.

The empirical chapter, that is, the one in which the last quarter-century's presidencies have been put under scrutiny, demonstrated that US space policy since the early 2000s indeed conforms to the pendulum dynamic. The sequences of Bush, Obama, Trump and Biden represent a vivid pattern of oscillation, which also reveals the cumulative effect of securitisation and the complexity in desecuritising an issue once it has been securitised, as well as how costly it may be to erase some previous initiative. In Chapter 2, in fact, it was demonstrated how both Bush and Trump fully respond to the maximalist definition of a presidency, framing space as an absolute imperative in which the US is not to be limited by any constraints, innovating the institutional framework under which US Space policy or space defence matters take place, refusing any binding agreement on arms control and showing a clear preference to unilateral or minilateral initiative. On the contrary, Obama and Biden presidencies represent a swing back toward retrenchment, with major efforts to rhetorically desecuritise space, reopening to the possibility of signing a binding arms control treaty, although under some conditions, and preferring multilateral initiatives by reengaging within the UN framework. However, retrenchment – especially under Biden – found some obstacles left by the previous maximalist phase, such as institutional innovation, costly to dismantle and an increased rivalry between international parties. The empirical findings, therefore, validated the pendulum hypothesis, demonstrating that American space policy, similarly to its foreign policy, oscillates between maximalism and retrenchment. At the same time, the study revealed that securitisation has a cumulative effect, showing the relevance of incorporating such a lens and demonstrating an overall trajectory of progressive securitisation layered across administrations.

Following the empirical analysis based on national policy and domestic political environment, the central insight that emerges once the analysis shifts to global order is that oscillation has systemic effects. Indeed, considering the prominent role that the US played in establishing, defining and shaping space governance, as it has done with the post-WWII international order, the recurring

oscillation between maximalism and retrenchment has shown to be a driver of uncertainty, delegitimation of Washington's role and governance fragmentation. Following the ongoing debate over legitimation and delegitimation in International Relations, the analysis concludes that sudden departure from normative consistency can be highly damaging, despite the norm-entrepreneurship shown by the US in proposing alternative views. These oscillations, in fact, may generate a crisis of legitimacy on three levels: a crisis of the norm, a crisis of the US's role and a crisis of the overall normative system. This crisis, indeed, may be generated by the constant oscillation of US strategic posture, as it injects inconsistency, with commitments that prove time-inconsistent, signals to allies and adversaries that contradict each other, and credibility that suffers over time, accumulating *vacuums* and contradictions that open space for rival narratives and *lawfare* tactics. Therefore, when the United States behaves inconsistently, as a result of the pendulum effect by which it extols norms in one period and disregards them in another, it loses the legitimacy from which its leadership stems.

By highlighting this phenomenon, Chapter 3 tries to explain how the oscillation translates into space governance stress, producing a polycentric, highly decentralised and fragmented space governance, affecting its overall stability. This stress in generated by mechanisms fuelled by US strategic posture inconsistency and, among others, those are identifies in credibility gaps, that induce hedging and forum shopping; "negotiation boomerangs, whereby US inconsistencies are redeployed against US-led initiatives in multilateral settings; normative emulation by rivals who mirror US venue choice with counter-templates; and lock-in effects that make partial regimes durable even when the pendulum later swings in the opposite direction. Moreover, the chapter analyses the pluralism of the contemporary governance landscape, redefining it as a polycentric order whose centres of decision-making overlap without a clear hierarchy or built-in interoperability, stemming from oscillation and norm avoidance rather than from deliberate regime design, tending to crystallise in fragmentation. This fragmentation can be understood as clusters of rules that collide or fail to communicate, such as in STM/SSA, gaps in enforcement and verification, and an invitation to lawfare in which rival legal narratives vie for de facto primacy in the absence of widely shared and durable constraints.

These dynamics yield three implications for US leadership, affecting its ability to create, establish and shape new norms for space governance. First is that credibility in norm entrepreneurship is a function of expected persistence, that is, a more than one-electoral-expression period of consistent support for a norm or cluster of norms, as well as which venue and tool is involved. In fact, the venture's instrument choice oscillates between universal fora and club models based on multilateralism and a like-minded approach, between openness to binding law and categorical scepticism towards any form of arms control agreement; third states rationally discount the longevity

of US commitments. Second, oscillations lower the barrier to entry for alternative regimes or templates, usually promoted by adversaries or opponents. In other words, rivals can invest in counter-frameworks because the US, intended as the leader, left a vacuum, leaving the question unsettled. Moreover, they can support the new instrument by positioning themselves as those who care about the issue, also delegitimising US action or inaction. This tactic works even if no opposed framework is proposed. Third, the lock-in effect transforms some decisions, actions or tactical choices into a strategic structure that cannot be reconverged by the next administration, if not at a high cost, whether political or economic.

Lastly, this thesis provides a scenario-building intellectual exercise defining two main axes: the degree of oscillation and the global tendency to multilateral or unilateralism/minilateralism. But those four scenarios, the most probable one, based on the reflection of NATO Strategic Foresight Analysis and the ODNI *Global Trends 2040*, is the one referred to as "Competitive co-existence". In this scenario, the historical constant demonstrated in chapter 2 remains constant, while an increasing tendency towards unilateralism/minilateralism mirrors the geopolitical environment, which is more competitive and infused by weakened democracies and emboldened revisionist powers. However, this scenario also represents the worst-case scenario, because rivals take pace in substituting the US in its role in space governance, increasing the delegitimisation and weakening of its proposed norm. In this regard, Western powers would likely follow Washington's rules, although defining their own set of rules, standards and prescriptions, signalling the will to establish a strategic autonomy, as signalled by the European Union.

The scholarly contributions of the thesis are the following. First, this thesis extends the pendulum theory from foreign policy to space policy, also creating new methodological indicators to qualitatively assess the oscillation between maximalism and retrenchment, linking domestic cycles to system outcomes through the concept of normative coherence and legitimacy. The indicator may be used in future research to empirically trace possible future directions of US candidates, as well as being applicable to other political systems, with due verification. Moreover, by embedding the securitisation theory as an interpretative and complementary tool, the thesis offers a way to understand better the discursive mechanism that lies under policy swings and also the cumulative effect produced by securitisation, a cumulative effect that can be observed in the lock-in effect, as well as its background role in conditioning contemporary fragmentation in space governance, spanning from resource governance to space traffic management. A further methodological contribution is the introduction of "normative coherence" as an intermediate analytic construct linking domestic cycles to systemic outcomes, allowing the analysis to show how repeated

misalignment induces predictable behavioural responses by third states (hedging, forum shopping), which in turn generate structural fragmentation.

Analytical and methodological limits of this intellectual effort must be acknowledged, also to allow future scholars to further deepen the role of oscillation and how this dynamic will still play a pivotal role in the near future. The main issue of the analysis is the hyperfocus on the US, justified by its historical importance in creating, establishing and shaping the space governance, as well as its prominent role due to its technological supremacy and ever-increasing growth of the private space sector. This hyperfocus did not allow for a deeper comparative analysis with other major spacefaring nations, also positioning their initiatives as a mere response to US actions or inactions, without deepening their autonomous strategic approach. Another major issue is the almost total absence of quantitative analysis, quantitative analysis that might have been done for the first indicator, i.e., the rhetorical framing, by mapping the number of times some sentences, words or phrase construction recurs in strategic and policy documents, declarations or advisors' writings. Finally, there is a normative and epistemic limitation, as "normative coherence" and "legitimacy" are the former, which is easier to describe than to quantify; and the latter is relational and audience-dependent. Moreover, there is a risk of Western-centric bias in evaluating which venues and instruments count as more legitimate.

In conclusion, the author would like to highlight how while oscillation is a recurrent pattern with systemic externalities, this structural behaviour can be governed. While it would be almost impossible to abolish alternation in a competitive democracy such as the US, American policymakers should try to insulate the international order from its most corrosive effects. That implies committing, across administrations, to a stable staircase of venues and instruments to keep universal fora warm even while innovating in minilateral clubs and design club practices with explicit pathways to universalisation, recognising the importance of consistency and the important role of having a leader who is looking to make standards universally accepted by consensus. By doing so, it is likely that the United States will remain a crucial norm-entrepreneur without being a periodic source of normative incoherence, also allowing a layered polycentric governance, facilitating the establishment of a coherent regime complex.

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Following the university rules, the use of AI is acknowledged. However, the role of AI was limited to brainstorming and rephrasing some sentences, with all the ideas stemming originally from the author. Lastly, AI was employed to assist in producing footnotes and the bibliography.