

LAW(LESSNESS) IN THE FINAL FRONTIER:
THE IMPERIAL FANTASY IN AMERICAN SPACE POLICY

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ABSTRACT

This thesis examines the historical development of American space policy as an imperial project. This paper is periodized in three chronological eras—the Cold War, the 1990s, and the post-9/11 era—that display distinct viewpoints and methodologies toward the practice of expansionism in outer space. Further, despite the multitude of scholars who refer to outer space as the “Final Frontier,” few interrogate the use of this traditionally imperialist rhetoric. Analyzing the language and methodology of Manifest Destiny as it applied in early American expansion and now as it is inscribed upon outer space truly illuminates the imperial project.

In understanding space policy as inherently expansionist and inherently imperialist, this study delves into the vehicles or tools of that project. In the Cold War era, the goal of surveillance—akin to Foucault’s Panopticon theory—becomes the early focus in space policy. This coincides with the goals of the Cold War to prevent Communist expansion and establish the United States as the protector of the “free world.” While surveillance policy in no way stopped, the United States understood the need to present itself as a cooperative world leader. Thus, in the 1990s an emphasis is placed on cooperation and the presentation on the global stage of benign power. Post-9/11 the new Communism is “terror,” setting the stage for a reinvigorated and even more overt exceptionalism in outer space. The more pervasive form of imperialism is developed in this period through the process of taking up space via satellite placement in Earth’s orbit. Ultimately, this paper concludes that a discussion of space policy must be more firmly written into the racialized and gendered history of American imperialism. As space travel and exploration becomes more prevalent, it is imperative that scholars continue to interrogate and indict the flaws in the system.

TABLE OF CONTENTS

ABSTRACT	I
INTRODUCTION.....	1
NATIONAL SECURITY IN OUTER SPACE.....	8
HOLDING THE ROYAL FLUSH – POWER GAMES ON A GLOBAL SCALE	11
CHAPTER ONE - EARTHLINGS IN OUTER SPACE: CREATING AN INTERNATIONAL FRAMEWORK FOR SPACE LAW	15
THE FOUNDATION OF INTERNATIONAL LAW.....	17
MODERN INTERNATIONAL LAW.....	18
CREATING SPACE LAW.....	22
THE OUTER SPACE TREATY.....	24
CHAPTER TWO - THE SPACE PANOPTICON: COLD WAR SPACE POLICY AND THE RISE OF THE SURVEILLANCE STATE.....	29
THE ULTIMATE POSITION—US SPACE POLICY DURING THE COLD WAR	32
A. <i>The Eisenhower Approach</i>	36
B. <i>Moving the Finish Line—JFK, LBJ & the Race to the Moon</i>	39
C. <i>Winning the Space Race, What Now?—Nixon, Ford & Carter</i>	42
D. <i>The Beginning of the End—Reagan and the Cold War legacy</i>	45
“BIG BROTHER IS WATCHING YOU”	49
A. <i>All-Seeing, Unseen—America’s Space Panopticon</i>	52
B. <i>The “Peaceful Purposes” Rhetoric</i>	58
CHAPTER THREE - THE EMPIRE’S NEW CLOTHES: POST-COLD WAR SPACE POLICY IN A UNIPOLAR WORLD	62
FROM COMPETITION TO COOPERATION--AMERICA’S NEXT STEPS	63
A. <i>The Post-Cold War President—Bush 41</i>	64
B. <i>Clinton and the International Space Station</i>	67
BIG STICK DIPLOMACY.....	69
A. <i>Space Policy and the War on Terror</i>	70
B. <i>The Obama Administration—A New Era in Space Policy?</i>	72
C. <i>Donald Trump and the Road to Space Force</i>	73
CHAPTER FOUR - SPACE COWBOYS: US SPACE POLICY AND THE IMPERIAL IMAGINARY	76
MANIFEST DESTINY	78
A. <i>The White Man’s Burden</i>	83
MODERNIZING MANIFEST DESTINY – TURNER’S FRONTIER THESIS AND THE FUTURE OF EXPANSIONISM	86
RACE, SPACE, AND THE SPACE RACE	87
A. <i>Historical Mythmaking & Imperialism in Outer Space</i>	88
B. <i>Putting the Frontier Myth into Practice—Dolman’s Astropolitik</i>	90

C. *Prioritizing Space over Race—The Battle for Resources*..... 94
D. *Private Industry—The New Robber Barons* 98

CHAPTER FIVE - SCIENCE FICTION AND EMPIRE: CREATING THE OTHER IN POPULAR CULTURE..... 104

 SCIENCE FICTION AND ‘THE OTHER’ 107
 SCIENCE FICTION AS RESISTANCE 110

CONCLUSION..... 114

BIBLIOGRAPHY 118

INTRODUCTION

Historians estimate that the first settlers of the Hawaiian Islands arrived from the Marquesas Islands as early as 400 BCE.¹ Traveling some 2,000 miles in canoes whittled from the trunks of massive trees, these seafarers navigated into the unknown using only the stars as a map to guide them on their journey. To traverse the expanses of the Pacific Ocean, Polynesian voyagers who would become the population of Native Hawaiians settlers used Star Lines—a system of astronomical mapping by drawing a figurative line from star to star.² From the very inception of Hawaiian culture, astronomy has played an integral role. In large part, Native Hawaiians exhibited far more advanced navigational systems than their European counterparts. However, as is true of many colonized nations, Hawai'i fell victim to the force and magnitude of Western imperialism. Despite the deep-rooted connection between astronomy and Hawaiian culture, a modern conflict on native soil centered around the construction of the world's largest telescope and has provided a microcosmic example of the distinct interconnection between imperialism of BIPOC³ land and bodies and outer space.

Located on the island of Hawai'i (Big Island), a long dormant volcano has become the site of cultural unrest and an ongoing reminder of the imperialist conflict in Hawai'i and more broadly, the world. For Native Hawaiians, "Mauna a Wākea [Mauna Kea] represents our physical and spiritual connections to past, present, and future generations," making it an

¹ "Hawaii—History and Heritage," *Smithsonian Magazine* (Nov. 6, 2007), <https://www.smithsonianmag.com/travel/hawaii-history-and-heritage-4164590/#:~:text=The%20Hawaiian%20Islands%20were%20first,battled%20one%20another%20for%20territory.>

² Leilehua Yuen, "A Lei of Stars—Hawaiian Stars and Constellations," *Ka'ahele Hawaii* (2018), <https://www.kaahelehawaii.com/hawaiian-stars/>.

³ Black, Indigenous, people of color

undeniably sacred center of Hawaiian culture and history.⁴ As the sacred piko (center) of Hawaiian genealogy, the summit of Mauna Kea was kapu (taboo), reserved only for the ali'i and kahuna (priests).⁵ Like much of the world claimed by Western settlers, Mauna Kea fell victim.

In 1968, the Board of Land and Natural Resources (BLNR) leased the University of Hawai'i land on the summit of Mauna Kea for the establishment of the Mauna Kea Science Reserve (MKSR).⁶ From its inception, both Native Hawaiian and environmentalist groups have opposed the MKSR, citing "adverse impacts on cultural, archeologic and historical resources" as well as the environmental impact of construction and operation of the telescopes.⁷ In 2014, following the initiation of a project to build a thirty-meter telescope (TMT), peaceful protestors expressed both cultural and environmental concerns.⁸ In April 2015, during a blockade of the Mauna Kea access road, thirty-one peaceful protestors were arrested.⁹ The 2015 protests made national news, and resulted in an outpouring of support from indigenous communities nationwide, further widening the schism between the TMT and the protestors. From 2016 to 2018, the TMT project was embroiled in litigation as protestors fought to halt the project.

⁴ Leon No'eau Peralto, "Hānau ka Mauna, The Piko of Our Era", in *A Nation Rising: Hawaiian Movements for Life, Land, and Sovereignty*, ed. Noelani Goodyear Ka'ōpua et. al. (NC: Duke University Press, 2004), 238.

⁵ In re Contested Case Hearing re Conservation District Use Application SCOT-17-0000777 (2018) (hereinafter "Mauna Kea II").

⁶ Ibid.

⁷ Ibid., 5-6.

⁸ Sacred Mauna Kea, "Mauna Kea Protest," *Deep Green Resistance News Service* (Oct. 7, 2014), <https://dgrnewsservice.org/resistance/indirect/symbolic/press-release-hawaiians-protest-30-meter-telescope-on-mauna-kea-october-7th/>.

⁹ "31 Arrests on Mauna Kea, Mauna Kea Hui Responds," *Big Island Video News* (April 2, 2015), <http://www.bigislandvideonews.com/2015/04/02/31-arrested-on-mauna-kea-mauna-kea-hui-responds/>.

From a scientific standpoint, TMT is a modern marvel. When completed, the telescope will be the largest visible-light telescope in the world, allowing astronomers to gain a better understanding of the universe.¹⁰ Yet, the very presence of the telescope raises serious questions about the nature of space exploration. In the name of progress, powerful players have yet again reminded observers that “advancement” comes at the price of native interests and violates spiritual understandings and genealogical connections to the land. Shielded by the apparent objectivity of science, TMT is posited as an entirely benevolent venture. So too had social Darwinism provided the justification for imperialism years earlier.

The conflict highlights the ongoing relationship between Western science and imperialism. In the name of advancement and of national interests, imperial exploits take precedence. Much like the broader US space policy, the Thirty Meter Telescope illuminates the unwavering belief that American goals are universal and thus must be achieved at any cost. And, unlike some aspects of foreign policy, outer space has a mythical appeal. The vast majority of humans will never have the opportunity to view Earth from above, and the appeal of outer space grows out of a desire to have that which proves elusive. Compounded by nationalist ideology, US space policy operates as a tangible ‘thing’ in the hearts and minds of many Americans. Thus, while policymakers may enact policy, they would not be able to do so without building the belief that space travel is not only scientifically interesting, but hegemonically *necessary*.

Space policy evolved under the shadow of the Cold War, a period of prolonged conflict between the United States and the Soviet Union from roughly 1947 to 1991.¹¹ As an

¹⁰ “What is TMT?,” *TMT International Conservatory*, <https://www.tmt.org/page/about#what-is-tmt>.

¹¹ Jonathan F. Galloway, “Space Law in the United States,” in *Space Law: Development and Scope*, ed. Nandasiri Jasentuliyana (CT: Prager, 1992), 71.

ideological conflict, the Space Race evolved as a battle between the “free world” and communism.¹² In this role as the protector of freedom, US space policy—and foreign policy more broadly—often emphasized the inevitability of American preeminence in space. The world leaders’ hunger not only to explore but to be the leader in space exploration fueled the space programs of the Soviet Union and the United States throughout the Cold War.

The close connection between the Cold War and the birth of space policy appeared almost unbreakable. At the outset, space had become the forum for a proxy war and absent an enemy, the future of American space policy seemed uncertain. The period following the Cold War saw a reimagining of space policy. Absent the imminent threat of mutually assured destruction, US space policy shed its defensive façade in favor of an aggressive, imperialist rhetoric. The early evolution of post-Cold War space policy highlighted an essential feature of the American worldview, namely, the belief that freedom ought to be administered by the United States.

The history of US space policy offers the opportunity for a rich investigation into American interests. Despite the body of international law stating that outer space cannot be owned or settled, American policymakers have displayed a blindness toward existing legal regimes. Utilizing a nearly identical language to past imperialism, that space is *terra nullius* (unoccupied land) and thus free for the taking, policymakers have re-entrenched the “final frontier” in the larger body of imperial discourse. In large part, American policymakers have not been coy about their reliance on imperialist rhetoric. In his remarks on signing the executive order establishing the National Space Council in April 1989, President George H.

¹² Karl Lieb, “International Competition and Ideology in US Space Policy,” *International Studies Notes* 24, no. 3 (1999), 33.

W. Bush stated, “[s]pace is the manifest destiny of a new generation and a new century.”¹³ Implicit within the discourse of manifest destiny is belief that it is a destiny only for the worthy few. Pairing imperialism with a rhetoric of collaboration, policymakers have established a uniquely American vision of outer space.

Chapter one examines the historical roots of space law. This analysis requires an explication of its roots in international law. In order to articulate the structure of state responsibility, this section dissects the foundational documents of international law, specifically those incorporated in the United Nations. These related documents provide the basis for international cooperation. Specifically, I examine the 1967 Outer Space Treaty, which provides the foundation for international space law. This treaty as well as its successors establish the belief that space is a “global common” that cannot be owned by any nation.

As a reflection of broader policy concerns, space policy can be delineated into identifiable “moments.” The second chapter delves into the Cold War moment. The desire not only to explore but also to lead—and win—in space exploration fueled the space programs of the Soviet Union and the United States throughout the Cold War. Largely due to the fervent belief that a “Space Race” would display world dominance in all aspects of global hegemony, US space policy evolved without a strong foundation in domestic or international law. Rather, space came first, and the law was manipulated to fit within the already existing framework. The creation of international space law was emblematic of the complicated policy concerns of the era. As a product of the Cold War, early space policy reflected the dualistic desire to limit the rights of other states while simultaneously preserving the rights

¹³ Quoted in *ibid.*, 31.

of one's own state. In doing so, the bodies of space treaties have proven to be incredibly ambiguous. This ambiguity reflected not just bureaucratic vagueness but a finely articulated desire to operate between the lines of the law.

Chapter two also traces the establishment of American space policy as a civilian space program. The creation of the National Aeronautic and Space Administration (NASA) in 1958 drew a visible boundary between civilian-scientific interests in outer space and militaristic interests. Further, NASA operated as a form of soft power, allowing the United States to achieve its policy goals in a non-threatening manner by providing resources to fledgling nations desirous of space travel. I argue that, as an institution, NASA has become an unassuming tool in the international balance of power. This chapter likewise details the rhetoric of presidential national space policy from 1958— the first national space policy— through the fall of the Soviet Union. As American space policy evolved in dialogue with Soviet space policy, this chapter traces the relationship of the two nations. While the Soviet Union displayed early preeminence in space technology, the nation's weak and over-centralized economic structure made competition with the United States untenable in the long term. The economic structure of the massive and poor nation crumbled under the economic stress of the Cold War, in which the Space Race played a huge role. Within the Cold War framework, space policy established a distinct focus on surveillance. The era is defined by the push to launch satellites, particularly surveillance and communication satellites. Like the Cold War at home, defined by a superstitious fear of communism at home and abroad, the Cold War in space sought to control and contain.

With the ultimate demise of the Soviet Union in 1991, the post-Cold War period presented a unique 'imperial moment' made possible by the ideological shift away from the

fear of communism and toward the specter of 'terror.' Chapter three examines the period immediately following the Cold War, where space policy evolved to address the lack of the communist enemy. Space policy adopted a focus on international collaboration with the "benevolent" leadership of the United States. I argue that the surging interest in collaboration in the period immediately following the Cold War is emblematic of the nation's efforts to redefine space policy. Lacking the context of a bipolar world, the rhetoric of American power posited the nation as the gatekeeper to freedom. Even more malleable than its communist predecessor, the national policy focus on terror provided the necessary foundation for imperial expansion into the final frontier. I examine the growing discussion of space militarization and weaponization, which has raised significant questions about the nature of outer space activities.

In creating a firm foundation in the trends of space policy since its inception, this thesis concludes that US space policy is inherently imperialist. Chapter four delves into the frontier rhetoric commonly utilized in American foreign policy. Like the "need" to continually expand on Earth, expansion into outer space has been framed as benevolent and necessary. In outer space, imperialism takes on an even more pervasive outlet in the physical "taking of space" by a nation's satellites. In the geostationary orbit, the orbital region where most of the world's satellites operate, there are over 2,000 satellites in orbit. No international regulations limit the number of satellites a single nation may have in orbit, allowing a small number of nations to occupy the increasingly limited area. Finally, chapter five explores the role of popular culture in making imperialism palatable for a national audience.

NATIONAL SECURITY IN OUTER SPACE

In *Politics of Space Security*, James Moltz identifies three analogies of space policy. Making reference to fifteenth-century European globalization through exploration and trade, Moltz terms outer space the “New World.”¹⁴ Routes into outer space, like the trade routes of Portuguese and Spanish seafarers, not only represented economic freedom but also national superiority. Like Christopher Columbus’ ‘discovery’ of the ‘New World’ in 1492—these terms in scare quotes due to their gross historical inaccuracy—the act of conquest shapes reactionary foreign policies. And while it was well established by 1967 that outer space should not be subject to appropriation, “multilateral competition on new frontiers has provided a framework for much thinking about space, which assumed a survival-of-the-fittest strategy aimed at edging out the enemy.”¹⁵ The second analogy Moltz identifies is the sea and air power analogy. Heavily utilized by military theorists, the comparison of outer space to established practices of the air and sea emphasize the strategic ability to control vast regions with well-placed resources.¹⁶ Further, this analogy has provided the justification for framing space militarization as an inevitability. According to Major Franz Gayl, “[a]s with aviation, access and technology will drive forward to exploit any and all warfighting relevance, application, and advantage from space, quite independent of a nation’s will to prevent it.”¹⁷ While the sea and air power analogy is not without fault—namely that outer space is a uniquely hostile and dangerous region that is even less

¹⁴ James K. Moltz, *The Politics of Space Security: Strategic Restrain and the Pursuit of National*, 2nd ed. (CA: Stanford Security Studies, 2011), 15.

¹⁵ *Ibid.*, 17.

¹⁶ *Ibid.*, 18.

¹⁷ Maj. (USMC, ret.) Franz J. Gayl, “Time for a Military Space Service,” *Proceedings* (July 2004), 44.

controllable than air or sea—the import of the rhetoric in the hearts and minds of America’s policymakers cannot be understated. The last of Moltz’s analogies, Antarctica, is possibly the most accurate of the three. Like space, the frozen tundra offers strategic value but has proven largely uninhabitable. The 1961 Antarctic Treaty provided a model for the passage of the Outer Space Treaty six years later.¹⁸ Like outer space, the Antarctic Treaty adopted a position of non-appropriation and restricted military enterprises. As Moltz notes, while these analogies do recognize patterns in the rhetoric surrounding outer space, they largely fail at understanding the motivations for policy decisions in outer space.

To assess better the development of space policy requires a knowledge of the societal and political context in which it thrived. Space policy is inextricably linked to national security concerns. James Moltz articulates national security as “the relationship between a country’s capabilities and the challenges posed by the surroundings in which it must operate.”¹⁹ In this context, security can be defined as the relative freedom a state has to conduct desired activities. In outer space, national security is threatened by both human actions as well as the hostile and unforgiving nature of the place itself. Taking into account the particular space environment and the threats within it, space security is “the ability to place and operate assets outside the Earth’s atmosphere without external interference, damage, or destruction.”²⁰

For the first three decades of space travel, only two nations possessed spacefaring capabilities. In the Cold War era, space policy developed into two distinct “phases.” Despite

¹⁸ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, narrative, 10 October 1967, 610 U.N.T.S. 205 (*hereinafter* “OST”) (“The Outer Space Treaty, as it is known, was the second of the so-called “nonarmament” treaties; its concepts and some of its provisions were modeled on its predecessor, the Antarctic Treaty”).

¹⁹ Moltz, 11.

²⁰ *Ibid.*

the establishment of NASA, the civilian face of space activities, in the period immediately following the *Sputnik I* launch from roughly 1957 to 1962, space policy was carried out primarily by the military. However, from 1963 to the end of the Cold War in 1991, space policy adopted a persuasive approach focused on the imposition of soft power to influence international decision-making.

Walter McDougall suggests that *space nationalism* derived its power from the trifecta of political realism, a legacy of imperialism and the motivation of Cold War ideologies.²¹ Thus, outer space offered yet another expansive frontier ripe for an imperial power grab. Mimicking the manifest destiny mentality on Earth, the narrative of space nationalism is fueled by the conviction that the United States is not only the rightful leader of the movement into outer space but in fact the *only* acceptable leader. As Everett Dolman—professor at the US Air Force’s Air Command and Staff College—asserts, even agreements like the Outer Space Treaty are a “reaffirmation of Cold War realism and national rivalry, a slick diplomatic maneuver that both bought time for the United States and checked Soviet expansionism.”²² Far from seeing space as the bastion of international cooperation and political goodwill, Dolman’s conception of the Outer Space Treaty offers a somber reading of political manipulation.

The 1990s in particular were an era of cooperative efforts, namely the creation of the International Space Station. Lacking the communist enemy, space policy necessarily shifted. The situation presented distinct needs. On one hand, space policy could no longer be framed as a justification to stop the encroaching threat of the Soviet Union. On the other, the United

²¹ Walter A. McDougall, *...the Heavens and the Earth: A Political History of the Space Age* (NY: Basic Books, 1985), 5.

²² Everett C. Dolman, *Astropolitik: Classical Geopolitics in the Space Age* (UK: Frank Cass Publishers, 2002), 8.

States enjoyed near unfettered access to outer space. Where the driving force for space nationalism was competition, the driving force for *space hegemony* was outright superiority.²³ Dolman, a highly influential proponent of this shift, based his belief on the assumption that US power was not only good but that it was harmless. The United States, “as guardian of space,” according to Dolman, would be “the benign state that has ever attempted hegemony over the greater part of the world.”²⁴ The United States emerged from the conflict as the benevolent liberator of the free world and the decade following was shaped by an interest in forwarding international space policy that necessarily relied on the leadership and prowess of the United States.

With the shock of the September 11, 2001 attacks, the focus on space shifted to meet the burgeoning demand for national security-centric policies yet again. The fear of hostile nations obtaining and utilizing space-based technology against the United States resulted in the nation withdrawing from a cornerstone of Cold War arms control: the 1972 Anti-Ballistic Missile Treaty. The nation under George W. Bush (Bush 43) saw massive growth of space weaponization. While the communists in the East provided an identifiable source of conflict, the War on Terror provided an even more formidable enemy. Seeing threats around every corner, the militaristic fervor in space amplified.

HOLDING THE ROYAL FLUSH – POWER GAMES ON A GLOBAL SCALE

The varied rhetoric and policy approaches to outer space highlight an inherent feature in American foreign policy as a whole. Simultaneously framed as a vast resource for

²³ Moltz, 26-27.

²⁴ Dolman, 155.

peaceful use by all states, US space policy continues to reinforce the conviction that even in a free world the United States must be the master. While seemingly contradictory, the structure of American foreign policy utilizes various approaches to power. American political scientist Joseph Nye, Jr. describes power: “like love, [it] is easier to experience than to define or measure. Power is the ability to achieve one’s purposes or goals.”²⁵ Typically, power is quantified in concrete terms like physical size, economic size, military prowess, and governmental stability.

Like a poker game, international power relations are defined by knowing one’s own “hand,” and taking calculated risks sometimes bluffing when the situation requires it. Yet, like poker, strategy plays an essential role often overtaking the influence of a states’ resources. To measure power solely in terms of the concrete, measurable assets a state possesses overlooks the myriad variables that may result in an upset. Despite their superior weaponry, the French were brutally defeated by the Viet Minh in the 1954 Battle of Dien Bien Phu. In what was expected to be a simplistic exercise of colonial power and might, French forces grossly underestimated Viet Minh military strategy. In this battle, the Viet Minh outplayed the French power conversion—“the capacity to convert potential power...to realized power.”²⁶ Thus, while the French ostensibly ought to have won the battle, their ability to utilize resources and exert power was no match for Viet Ming ingenuity.

As modernity has evolved international relations, so too has the nature of global power. The direct uses of power, like waging wars, are no longer as relevant to the power balance today. The positionality of the United States as a world power and protector of the

²⁵ Joseph S. Nye Jr. “The Changing Nature of World Power,” *Political Science Quarterly* 105, no. 2 (1990), 177.

²⁶ *Ibid.*, 178.

free world shaped foreign policy at the end of World War II. With the development and successful detonation of nuclear weapons, “the U.S. often chose not to use direct force in its dealings with other countries, but rather resorted to deterrence and persuasion.”²⁷ In his 1994 retrospective *Diplomacy*, Henry Kissinger traces a “revolutionary departure for Old World diplomats” shaped by President Woodrow Wilson’s policy of ensuring peace through the spread of democracy.²⁸

Rather, the “second face of power,” often called command power, is the ability to influence another nation’s choices.²⁹ Command power often operates as metaphorical carrots and sticks; states with command power can either provide incentives or threats to influence. In addition to this direct one-to-one use of command power, states often employ soft “co-optive” power which “can rest on the attraction to one’s ideas or on the ability to set the political agenda in a way that shapes the preferences others express.”³⁰ In essence, “[s]oft co-optive power is just as important as hard command power. If a state can make its power seem legitimate in the eyes of others, it will encounter less resistance to its wishes.”³¹ Soft power allows nations to influence without overtly expressing their motives. Unlike most forms of hard power, soft power “tends to be associated with intangible power resources such as culture, ideology, and institutions.”³²

Within the context of space policy, the United States projects power in a variety of ways. In establishing a civilian space program focused on scientific data sharing, America posited its power in space as benevolent and non-threatening. Simultaneously, military

²⁷ Nardon, 30.

²⁸ Henry Kissinger, *Diplomacy* (NY: Touchstone, 1994), 31.

²⁹ *Ibid.*, 181.

³⁰ *Ibid.*

³¹ *Ibid.*, 182.

³² *Ibid.*

space activities have become an area of growing national interest. From satellite systems for intelligence and reconnaissance to communication and geolocation, space technologies are an integral element of the military's functionality.³³ This multifaceted approach to power and policy has allowed the United States to assert that its hegemony is obvious *and* necessary. In large part, the two projects are seemingly incompatible—the civilian program a beacon of harmless cooperation and the military program intent on securing superiority by any means necessary. In reality, both are two sides of the same coin that make up the imperial project in the United States, premised equally on the façade of benevolence and the ongoing threat of dominance.

³³ Miniero, 449.

CHAPTER ONE

EARTHLINGS IN OUTER SPACE: CREATING AN INTERNATIONAL FRAMEWORK FOR SPACE LAW

“The Earth is a cradle of humanity, but one cannot remain in the cradle forever.”
-Konstantin Tsiolkovsky³⁴

At a Senate Committee on Armed Services hearing in April 2019, Senator Tim Kaine advocated for the establishment of a United States Space Force. Addressing international law on outer space, Senator Kaine claimed “there's no rules right now.”³⁵ Despite the Senator’s assertion, space law has in fact existed for decades. In fact, space law is a unique area of law that exists within the larger body of international law. One of the greatest hurdles in crafting a body of space law is that space is virtually unexplored, and thus this is a body of law attempting to regulate the unknown. In fact, humans dreamed of travelling to outer space long before it became a reality.

For much of later half of the nineteenth century, scientists posited questions concerning the ability to travel past Earth’s atmosphere. The term ‘law of space’ was coined in 1926 by V.A. Zarzar, a member of the Soviet Aviation Ministry, who sought to identify the legal boundary between Earth’s airspace and outer space.³⁶ Six years later, Czechoslovakian scientist Vladimir Mandl published *The Space Law: A Problem of Space Flights*. Mandl argued that states could not assert sovereignty over any atmospheric space other than that directly above it, stating that space, “which is no longer Earth appurtenant . . . is therefore, free of

³⁴ “Konstantin E. Tsiolkovsky,” *NASA* (Sep. 22, 2010), <https://www.nasa.gov/audience/foreducators/rocketry/home/konstantin-tsiolkovsky.html> (quoting Konstantin E. Tsiolkovsky).

³⁵ *Hearing to Receive Testimony on the Proposal to Establish a United States Space Force Before the S. Comm. on Armed Services*, 116th Cong. 1, 66-68 (2019) (statement of Sen. Kaine).

³⁶ Stephen E. Doyle, *The Origins of Space Law and the International Institute of Space Law of the International Astronautical Federation* (CA: Univelt, 2002), 2.

any terrestrial State power, *coelum liberum*.”³⁷ Despite the academic community taking an ongoing interest in questions of space law, these concerns did not gain much traction for several years. However, on October 4, 1957, the Soviet-launched *Sputnik I* changed everything. As the first man-made satellite launched into orbit, *Sputnik I* proved to the international community that space travel was a very real possibility.³⁸

Within the context of international law, space law operates primarily via treaties signed onto by states. These treaties established a normative framework for space law yet have left some yet unfilled holes. Like Antarctica and the seas, outer space is a ‘global common’ that cannot be owned or occupied by a sovereign power.³⁹ While the prospect of space travel existed as a fantasy in the minds of intellectuals for centuries, the actualization of space travel in the twentieth century presented an enigma for the international community.⁴⁰ Lawmakers were confronted with the daunting reality that space travel demanded regulation by international law, yet the vastly unexplored region left open the question of what exactly to regulate.

While seemingly a simplistic determination, the question of where state sovereignty ends, and outer space begins remains unsettled. A 1959 report of the *Ad Hoc* Committee on the Peaceful Uses of Outer Space stated that “the determination of precise limits for airspace and outer space did not present a legal problem calling for priority consideration at this moment.”⁴¹ Thus, when the process of drafting a treaty to govern state actions in outer space

³⁷ *Id.* (quoting Vladimir Mandl).

³⁸ *Id.*

³⁹ Glossary of Environment Statistics, *Studies in Methods*, Series F, No. 67 (NY: United Nations, 1997).

⁴⁰ Lorenzo Gradoni, “What on Earth is Happening to Space Law?,” *European Journal of International Law* (Jul. 31, 2018), <https://www.ejiltalk.org/what-on-earth-is-happening-to-space-law-a-new-space-law-for-a-new-space-race/>.

⁴¹ Report of the Ad Hoc Committee on the Peaceful Uses of Outer Space, U.N. Doc, A/4141 at 93-94 (1959).

began in 1961, the definition of outer space itself remained unclear. In 1963, John Cobb Cooper, the first Director of the Institute of International Air Law at McGill University suggested, “complete and exclusive sovereignty of the subjacent State up to 20 or 25 miles above the earth's surface; then it would authorize the extension of national sovereignty up to 70 or 75 miles, with rights of passage for peaceful spacecraft through this extended area; ...outer space beyond be free and not subject to national appropriation.”⁴² Today, there is no true consensus.

As outer space continues to be an increasingly relevant topic on the global stage, the need to clarify even the most basic of terms is of the utmost importance. To truly understand the development of space policy, it is essential to position it within the larger framework of international law. The inability of the international community to agree on something as seemingly simplistic as the boundary of Earth and outer space beautifully illustrates the precarious nature of international law.

THE FOUNDATION OF INTERNATIONAL LAW

By nature, international law is rife with contradictions. It rests upon the dualistic assertion that states are sovereign parties, yet these sovereigns ought to be held to an international standard.⁴³ The focus on creating an established system of laws evinces a societal preoccupation with neatly ordering society on both a domestic and international level.⁴⁴ However, unlike domestic law's focus on the actions of individual peoples,

⁴² John Cobb Cooper, paper presented at the Sixth Colloquium on the Law of Outer Space of the IAF International Institute of Space Law in Paris, 1963, quoted in Vladimir Kopal, “The Questions of Defining Outer Space,” *Journal of Space Law* 8, no. 2 (1980), 154.

⁴³ Frances T. Freeman Jalet, “The Quest for the General Principles of Law Recognized by Civilized Nations - A Study”, *UCLA Law Review* 10, No. 1041 (1963), 1054.

⁴⁴ Malcolm N. Shaw, *International Law*, 7th ed. (UK: Cambridge University Press, 2014), 1.

international law is the law of nation states. Thus, it is largely paradoxical in nature, as it both presumes the sovereignty of states and also binds them to an international legal “standard,” for which violation is punishable. This notion of state sovereignty is derived from the 1648 Treaty of Westphalia, which is often credited with the establishment of the international law system.

Effectively ending a period of religious warfare known as the Thirty Years’ War, the Treaty of Westphalia sought to establish a diplomatic relationship between Europe’s sovereign states.⁴⁵ The Westphalian system is premised on the understanding that sovereign “nation states” are each equally sovereign. This establishes two “truths” of international law: that a state’s borders are inviolate and that its domestic affairs are not subject to interference by other states. This system tied people’s identities to their state, out of which the concepts of nationality and nationalism blossomed.⁴⁶

MODERN INTERNATIONAL LAW

Unsurprisingly, much of international law developed in response to armed conflict. Early formulations were developed in the nineteenth century following the American Civil War, with the Lieber Code, which further spawned “Hague Law,” a basic law of hostilities.⁴⁷ Notably, the Lieber Code marked a push toward the codification of customary international law principles of war, and “formed the basis of the draft of an international convention on

⁴⁵ Thomas Woods Jr., *How the Catholic Church Built Western Civilization* (Washington DC: Regnery Publishing, 2012), 141.

⁴⁶ Jason Farr, “The Westphalia Legacy and the Modern Nation-State,” *International Social Science Review* 80, no. 3/4 (2005), 158.

⁴⁷ Theodor Meron, *The Making of International Criminal Justice* (NY: Oxford University Press, 2011), 19.

the laws and customs of war presented to the Brussels Conference in 1874.”⁴⁸ Further, in 1864 Geneva Law began with the first Geneva Convention, which “provided for the protection of victims of war; the sick the wounded, prisoners, and civilians.”⁴⁹ The second Geneva Convention in 1907 established maritime warfare standards, and the third Convention in 1929 pertained to prisoners of war. The three early Conventions all built upon vestigial customary international law doctrines, and largely codified an existing system. Moreover, following World War II (WWII), the atrocities committed by the Hitler’s Nazi forces initiated the Universal Declaration of Human Rights in 1948, the Genocide Convention of 1948 (entered into force in 1951), and the fourth Geneva Conventions of 1949.

At the dénouement of World War II, the International Court of Justice (ICJ) was founded as a judicial body of the United Nations to make decisions on an international scale. Its purpose was to “offer a peaceful means of dispute resolution between States so as to avoid resorting to sanctions or the use of force.”⁵⁰ Given that there is no single international judiciary, the ICJ derives its authority from four main sources: treaties, customary international law, general principles of law “recognized by civilised nations,” and judicial decisions and secondary commentaries.⁵¹ Article 38 of the Statute of the ICJ categorizes these sources of international law:

1. The Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply:
 - a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;

⁴⁸ Jean-Marie Henckaerts and Louise Doswald-Beck, *Customary International Humanitarian Law Volume I: Rules* (NY: Cambridge University Press, 2009), xxxviii.

⁴⁹ Meron, 20.

⁵⁰ Cassandra Steer, “Sources and Law-Making Processes Relating to Space Activities,” in *Routledge Handbook of Space Law*, ed. Ram S. Jakhu and Paul Stephen Dempsey (NY: Routledge, 2017), 5.

⁵¹ United Nations, *Charter of the International Military Tribunal - Annex to the Agreement for the prosecution and punishment of the major war criminals of the European Axis (“London Charter”)* (8 August 1945), Article 38.

- b. international custom, as evidence of a general practice accepted as law;
 - c. the general principles of law recognized by civilized nations;
 - d. subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.
2. This provision shall not prejudice the power of the Court to decide a case *ex aequo et bono*, if the parties agree thereto.⁵²

Further, “there is no international legislature that makes laws for the nations of the world. Notably absent also is the force of binding precedent. The rulings of ad hoc tribunals with ever-changing panels of judges does not make possible adherence to the doctrine of *stare decisis*.”⁵³

Found in section (1)(a), an international convention is a treaty that is legally binding only for the nations that sign onto it. This operates on the principle of *pacta sunt servanda*⁵⁴—that all agreements must be kept—however conventions are generally only binding on the parties to the treaty.⁵⁵ Treaties denote an international obligation between the states that are parties to them. While binding on the states that choose to sign via the rule of *pacta sunt servanda*, there is no requirement for a nation to sign a treaty and thus the “law” established by it is limited to the parties that ratify. However, the very act of a state’s willingness to adhere to a treaty’s terms may, in some situations, provide the basis for the establishment of customary international law.⁵⁶

⁵² ICJ Statute, art. 38.

⁵³ Jalet, 1054.

⁵⁴ *Pacta sunt servanda* is Latin for “agreements must be kept,” which generally means that parties to a treaty are legally obligated to uphold the terms of a treaty.

⁵⁵ There are circumstances in which States may be bound by general principles of international law widely accepted by the international community. See discussion of customary international law.

⁵⁶ Judge Christopher Greenwood, “Sources of International Law: An Introduction,” *United Nations Office of Legal Affairs* (2008), 3.

Customary international law, section 1(b), derives its legitimacy from the norms driving the international community. In order for a practice to be considered customary international law, two conditions must be met: “[s]tate practice (*usus*) and a belief that such practice is required, prohibited or allowed, depending on the nature of the rule, as a matter of law (*opinio juris sive necessitatis*).”⁵⁷ This means that state practice in the specific area of law being assessed is adopted by a majority of state actors in the international community who feel bound by it as if it were law. Therefore, even if a state is not party to a treaty, there are situations where “a large number of States agreeing upon a treaty provision is itself an important piece of State practice. If those and other States subsequently apply the treaty provision – especially where they are not parties to the treaty – then it can quickly become part of customary international law.”⁵⁸

Similarly ambiguous is the concept of “general principles of international law” found within section 1(c). These principles include “the fundamental principle of humanity; the principle that no State should knowingly allow its territory to be used by others contrary to the rights of third States; and the principle of self-determination.”⁵⁹ Further, while considered, general principles of law typically do not bear much weight in the judgments of international courts. Nonetheless, “they [are] seen as those basic legal principles which underlie, and are common to, every legal system and which, being universally recognized, are known to all nations.”⁶⁰ The general principles serve a significant purpose, filling many of the judicial holes in international law. Similarly, judicial decisions in international courts

⁵⁷ Henckaerts and Doswald-Beck, xxxviii.

⁵⁸ Greenwood, 3.

⁵⁹ Steer, 8-9.

⁶⁰ Jalet, 1056.

do not bear the traditional *stare decisis*—precedential—effect, but rather act as evidentiary support for decisions based on customary law.

Finally, section (1)(d) of Article 38 concerns ‘soft law’—sources of legal scholarship that are not binding, however have persuasive effect. Generally, soft law is an indistinct term that encompasses non-binding sources like UN General Assembly resolutions.⁶¹ Soft law “can have a very strong normative value” as it similarly rests upon the state consensus.⁶² Customary international law and soft law are particularly important in regard to space law in large part because outer space has become increasingly difficult to regulate. Since the 1979 Moon Agreement, no space-related treaties have been promulgated, which has resulted in “a strong tendency toward the development soft law guidelines ‘codes of conduct’ for space-related matters.”⁶³

Within this broad framework of international law, space law can be described as a *lex specialis*—law governing a specific area or subject matter. For space in particular, the concept of creating a body of law that governs an infinite and largely unknown area is daunting. In addition to the technological constraints of governing outer space, the development of space law is a product of a Cold War world.

CREATING SPACE LAW

Prior to the successful launch of *Sputnik I*, discussions regarding the creation of a distinct body of space law existed almost exclusively in the academic setting. Early

⁶¹ *Ibid.*, 19.

⁶² *Ibid.*, 21.

⁶³ Ram S. Jakhu & Steven Freeland, “The Relationship Between the Outer Space Treaty and Customary International Law,” Paper presented at the 59th Colloquium on the Law of Outer Space (2016).

discussions of space flight and discussions of the atmospheric beginning of outer space popularized by European theorists in the early twentieth century were overshadowed by the global upheaval of World War II. By the end of the war, both the United States and Soviet Union understood the importance of crafting international space law that served their policy goals.

Founded in December 1959 via Resolution 1472, the United Nations (UN) Committee on the Peaceful Uses of Outer Space (COPUOS) has played a significant role in the promulgation of space law.⁶⁴ This committee has authored the five seminal space treaties which have become the cornerstone of international space law. The UN COPUOS has drafted five space treaties: the 1967 Outer Space Treaty⁶⁵, 1968 Rescue Agreement⁶⁶, 1972 Liability Convention⁶⁷, 1974 Registration Convention⁶⁸, and 1979 Moon Agreement.⁶⁹

In 1963, COPUOS unanimously approved the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space (the Declaration).⁷⁰ The Declaration articulated nine principles of outer space exploration including, that “[t]he exploration and use of outer space shall be carried on for the benefit and in the interests of all mankind,” that outer space be “free for exploration and use by all States on a basis of equality,” and that “[o]uter space and celestial bodies are not subject to

⁶⁴ G.A. Res. 1472, U.N. Doc A/RES/1472 (Dec. 12, 1959).

⁶⁵ OST.

⁶⁶ Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, 3 December 1968, 672 U.N.T.S. 119 (*hereinafter* “Rescue Agreement”).

⁶⁷ Convention on the International Liability for Damage Caused by Space Objects, 29 March 1972, 961 U.N.T.S. 187 (*hereinafter* “Liability Convention”).

⁶⁸ Convention on Registration of Objects Launched into Outer, 14 January 1975, 1023 U.N.T.S. 15 Space (*hereinafter* “Registration Convention”).

⁶⁹ Agreement Governing the Activities of States on the Moon and other Celestial Bodies, 18 December 1979, 1393 U.N.T.S. 3 (*hereinafter* “Moon Agreement”).

⁷⁰ G.A. Res. 1962 (XVIII), Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, 18th Sess., U.N. Doc A/RES/1962(XVIII) (Dec. 13, 1963) (*hereinafter* “Declaration of Legal Principles”).

national appropriation.”⁷¹ While the Declaration was not a binding document in itself, it provided the basis for the Outer Space Treaty.

THE OUTER SPACE TREATY

The Outer Space Treaty was entered into force on October 10, 1967, “a date now regarded as the birthday of international space law.”⁷² As the first international legal document on space law, the Outer Space Treaty establishes a very general framework for states’ actions in outer space.

Comprised of twelve substantive articles, the Outer Space Treaty is a remarkably short treaty. While the Outer Space Treaty outlines the parameters for state action in outer space, “it neither creates any organisation for its implementation and monitoring compliance, nor is capable of making invalid other treaties that are and will be inconsistent with its provisions.”⁷³ Article I establishes that outer space exists “for the benefit and in the interest of all, “including the “freedom of scientific investigation.”⁷⁴ Article II affirms that outer space “is not subject to national appropriation.”⁷⁵ Further, Article III requires that acts in space be carried out “in accordance with international law.”⁷⁶ Because space law is often vague or inadequate to fully address the breadth of international issues that may arise in such a volatile environment, Article III is of particular importance because it extends application of the entire body of international law to space law.

⁷¹ Ibid., ¶ 1 – 4.

⁷² Genady Zhukov & Yuri Kolosov, *International Space Law* 2nd ed. (Boris Belitzky trans.) (Russia: Statut Publishing House, 1984), 1.

⁷³ Jakhu & Freeland, 465.

⁷⁴ OST, art. I.

⁷⁵ OST, art. II.

⁷⁶ OST, art. III.

The treaty is notably silent regarding the specific activities a state may engage in while in outer space. In regard to state military presence, the Outer Space Treaty establishes three controlling principles. Article IV specifically mandates the parameters of space militarization.⁷⁷ Article IV proscribes the placement or use of weapons of mass destruction in outer space. Second, it proscribes the establishment of military bases on the “moon or other celestial bodies,” and finally it mandates that all space activities be for “peaceful purposes.”⁷⁸

But what does the Outer Space Treaty mean by ‘peaceful purposes’? Lacking any instruction from the Outer Space Treaty itself, parties to the treaty have interpreted this important yet vague phrase themselves.⁷⁹ Initially, the Soviet Union interpreted ‘peaceful’ to mean non-military, however “due no doubt to their own heavy military involvement in space, no longer emphasize such a definition.”⁸⁰ The United States has always asserted “that ‘peaceful’ means ‘non-aggressive’ and not ‘non-military.’”⁸¹ In this articulation, space militarization may be passive, and thus nonthreatening.

Militarization is not *per se* illegal under the Outer Space Treaty, however as technology grows more and more advanced, the questions of international legality become more pressing. Specifically, Article 2(4) of the UN Charter, “requires that all members refrain from the threat or use of force in their international relations against the territorial integrity or political independence of any State.”⁸² This means that states may only use force against

⁷⁷ OST, art. IV.

⁷⁸ *Ibid.*

⁷⁹ Robert L. Bridge, “International Law and Military Activities in Outer Space,” *Akron Law Review* 13, no. 4 (1980), 657.

⁸⁰ *Ibid.*, 658.

⁸¹ Bin Cheng, “The Legal Status of Outer Space and Relevant Issues: Delimitation of Outer Space and Definition of Peaceful Use,” *Journal of Space Law* 11, no. 1-2 (1989), 98.

⁸² Bridge, 659.

another state if acting in self-defense. UN Charter Article 51 affirms the right to self-defense.⁸³ While militarization merely refers to a state's military presence in outer space, weaponization specifically concerns the placement of weapons in space. The Outer Space Treaty neglects to provide a definition of a space weapon. In many situations, however, any object in space may function as a space weapon depending on its application.⁸⁴ When interpreted within this broader framework of international law, the Outer Space Treaty approach to militarization and weaponization reveals that a state's policy of militarization must be non-aggressive in nature.

Several of the key elements of the Outer Space Treaty have been expanded upon in later treaties. Article V concerns the treatment of astronauts. As "envoys of mankind," any capable state must aid an astronaut in distress regardless of the astronaut's nationality.⁸⁵ Just one year after the Outer Space Treaty entered into force, the 1968 Rescue Agreement provided a supplement to Article V.⁸⁶ Further, Article VI, which addresses international responsibility, incorporates general principles of state responsibility for internationally wrongful acts. Article VII and its counterpart, the 1972 Liability Convention,⁸⁷ establish a liability scheme in outer space.⁸⁸ Article VIII mandates the state of registry (where a space object launched into space is registered) "shall retain jurisdiction and control over such

⁸³ U.N. Charter art. 51.

⁸⁴ Michael Mineiro, "The United States and the Legality of Outer Space Weaponization: A Proposal for Greater Transparency and a Dispute Resolution Mechanism," *Annals of Air and Space Law* 33 (2008), 449.

⁸⁵ OST, art. V.

⁸⁶ Rescue Agreement.

⁸⁷ Liability Convention.

⁸⁸ OST, art. VII.

object.”⁸⁹ The actual parameters for registration are detailed in the 1974 Registration Convention.⁹⁰

Article IX of the Outer Space Treaty is by far the longest and most complex of the treaty provisions. In just a single paragraph, Article IX establishes six responsibilities for outer space activities. First, space activities must be “guided by the principle of cooperation and mutual assistance” and shall be “conduct[ed]...with due regard to the corresponding interest of all other States Parties.”⁹¹ States further have the duty to avoid “harmful contamination” and “adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter.”⁹² Perhaps the most ambiguous obligations present in Article IX concern the responsibility of a State to “undertake appropriate international consultations before proceeding with any such activity or experiment” if that activity would “cause potentially harmful interference.”⁹³ Conversely, States “may request consultation concerning the activity or experiment.”⁹⁴ The treaty does not provide definitions for any of the terms referenced. Finally, Articles X, XI, and XII emphasize the duty to cooperate and share scientific advancements with the international community. Article XII imposes the additional obligation that “[a]ll stations, installations, equipment and space vehicles on the Moon and other celestial bodies shall be open to representatives of other states Parties to the Treaty on a basis of reciprocity.”⁹⁵

⁸⁹ Ibid., art. VIII.

⁹⁰ Registration Convention.

⁹¹ OST, art. IX.

⁹² Ibid.

⁹³ Ibid.

⁹⁴ Ibid.

⁹⁵ OST, art. XII.

Taken in its entirety, the Outer Space Treaty is emblematic of its time. The assertion that no state may lay claim to outer space reflects the desire to prevent monopolization of space by either of the world powers with spacefaring capabilities. As a counterpoint to this principle, the Outer Space Treaty guarantees free use and exploration of outer space. Thus, while no state may assert sovereignty over outer space, it *may* utilize outer space for peaceful (non-aggressive) purposes.

CHAPTER TWO

THE SPACE PANOPTICON: COLD WAR SPACE POLICY AND THE RISE OF THE SURVEILLANCE STATE

*Every breath you take
And every move you make
Every bond you break
Every step you take, I'll be watching you
Every single day and every word you say
Every game you play
Every night you stay, I'll be watching you
-The Police⁹⁶*

The end of World War II brought the United States to the forefront of international world policy. The formerly isolationist nation had been part of the Grand Alliance with Great Britain and the Soviet Union during the war, and by triumphing, became one of the most powerful nations in the world.⁹⁷ With the largest air force, navy, and army in the world, as well as sole possession of the atomic bomb, the United States projected its power throughout the globe. Much of the US action after the war was grounded in the belief that it was the burden of the most powerful Western nation to establish order and defend 'democracy' against 'Communism'. This “defense by depth” strategy lent itself into the notion that Soviet ulterior motives were inherently aggressive. The Soviet desire to manipulate the borders of Poland westward upset the United States which, under President Harry S. Truman, demanded that the Soviets adhere to the letter of the agreements made post-war. This incident in conjunction with the presence of Soviet forces in Iran, and the mounting tensions after the Potsdam Conference in July 1945, manifested in the dichotomized world of the Cold War.

⁹⁶ The Police (1983), “Every Breath You Take,” retrieved from <https://genius.com/The-police-every-breath-you-take-lyrics>.

⁹⁷ Professor David Schmitz, “Origins of the Cold War,” 27 January 2014.

Discussion of space technology is inextricably linked to the Cold War. While the United States and Soviet Union had previously co-existed as reluctant allies, the conclusion of World War II initiated a global conflict against communism rather than fascism. This polarization laid the foundations for the structure of Cold War politics for nearly five decades. American policies toward communist powers revealed that the Cold War would be a war of ideas in which the United States represented freedom and the Soviet Union autocracy; this binary worldview gave the American people the perception that communism was an inherently aggressive, monolithic power that would infiltrate free nations until it had eradicated the very notion of freedom itself. According to Secretary of State Dean Rusk, “[l]ike apples in a barrel infected by corruption of the one rotten one [communism]...would infect Iran and alter the Middle East...Africa...Italy and France.”⁹⁸ This language of corruption was scattered through the foreign policy of the postwar years. In the eyes of many government officials, “there seemed little basis for distinguishing between Soviet tyranny and Nazi totalitarianism.”⁹⁹ In framing Cold War politics in such unwavering terms, the United States came to justify its actions in the name of protecting the free world from the specter of communism.

The need for national superiority bled into every aspect of domestic and foreign life. In fact, in 1959, Vice President Richard Nixon traveled to Moscow to attend the American National Exhibition. In a televised debate with Soviet Premier Nikita Khrushchev, the world leaders argued the relative merits of Soviet and American home appliances. The Kitchen Debate emphasized the

⁹⁸ Dean Acheson, Quoted in William H. Chafe, *The Unfinished Journey: America Since World War II*, (NY: Oxford University Press, 2007), 62.

⁹⁹ Chafe, 29.

ways in which foreign policy of the Cold War era was not limited to the formal actions taken by governments. Framed as an interest in scientific advancement, the push toward space flight represented the ability to push past the boundaries of Earth's atmosphere. The tension and reactivity between the United States and Soviet Union throughout the Cold War era was only exacerbated by what came to be known as the Space Race.

The October 4, 1957 launch of *Sputnik I* came as startling reminder of the scientific and technological prowess of the Soviet Union. As the televised spectacle of the Soviet success took the world by storm, Senator Lyndon Johnson remembered walking "with eyes lifted skyward, straining to catch a glimpse of that alien object which had been thrust into the outer reaches of our world."¹⁰⁰ In this moment, Johnson was met with "the profound shock of realizing that it might be possible for another nation to achieve technological superiority over this great country of ours."¹⁰¹ As policymakers like Johnson understood, outer space represented more than scientific success. It represented supremacy, and the ability to stake the literal and metaphorical high ground.

Within the Cold War framework, American space policy established a distinct focus on surveillance. The era is defined by the push to launch satellites, particularly surveillance and communication satellites. Like the Cold War on Earth, defined by a superstitious fear of communism, the Cold War in space sought to control and contain. Mapping the history of US space policy during the Cold War not only delineates the emphasis on surveillance systems but also on the role those systems play in the creation of a global power structure. Operating in near-complete invisibility, satellites are the silent enforcer of 'order.' While the obvious

¹⁰⁰ Lyndon Johnson, *The Vantage Point: Perspectives of the Presidency 1963-1969* (NY: Holt, Rinehart and Winston, 1971), 272.

¹⁰¹ Ibid.

goal of satellite technology was intelligence gathering, the other—and perhaps more important—goal was to establish the compliance through perceived surveillance.

Drawing from Michel Foucault's theory of the Panopticon in *Discipline and Punish*, this chapter examines the development of space policy in the United States.¹⁰² In large part, the Panopticon serves as a metaphor for the surveillance state. Foucault's conception of the Panopticon as a system of governmental control is derived from Jeremy Bentham's eighteenth-century design for the Panopticon prison. In the modern conception, the Panopticon operates not as a physical location but rather as a diffuse system of control. In the Cold War era, the American space Panopticon sought to control and ultimately eliminate the communist threat. In order to understand the space Panopticon, it is necessary to first outline the structure and development of American space policy.

THE ULTIMATE POSITION—US SPACE POLICY DURING THE COLD WAR

While historians typically credit the successful launch of *Sputnik I* as the formal beginning of the Space Race, the political interest space predated the launch. As World War II drew to a close, American and Soviet efforts to acquire Germany's rocket technology took center stage.¹⁰³ While the United States successfully detonated atomic bombs in Hiroshima and Nagasaki, it was met with another struggle: transporting such weapons. The *Enola Gay*, the B-29 heavy bomber tasked with dropping the bomb called "Little Boy" on Hiroshima, was 15,000 pounds overweight. On the fateful day in August 1945, the *Enola Gay* barely took

¹⁰² Michel Foucault, "The Subject and Power," *Critical Inquiry* 18, no. 2 (1982), 787.

¹⁰³ Burton Catledge and Jeremy Powell, "Space History," in *AU-18 Space Primer* (Air University Press, 2009), 4.

flight.¹⁰⁴ Throughout the war, German scientists including Werner von Braun toiled at the Peenemünde Army Research Center to develop the first long range ballistic missile. In 1942, the A-4 rocket (also called the V-2), became the first man-made object to cross the Kármán line, into outer space.¹⁰⁵ German rocketry not only offered a solution to the problem of transporting and detonating atomic bombs but also gave nations the power to control outer space.

In 1946, Project RAND¹⁰⁶ published its first report entitled *Preliminary Design of a World-Circling Spaceship*.¹⁰⁷ The lengthy report was produced in just three weeks at the behest of Major General Curtis LeMay in his capacity as the Deputy Chief of the Air Staff for Research and Development. Project RAND's assessment provided an early analysis of the prospects of satellite technology, hypothesizing that satellite technology would not only become an essential aspect of twentieth-century technological advancements, but also "inflame the imagination of mankind, and would probably produce repercussions in the world comparable to the explosion of the atomic bomb."¹⁰⁸ In this study, Project RAND recognized over a decade before the first successful satellite launch, the political and militaristic value of space technologies. The study made two hypotheses about the future of space technology, that:

1. A satellite vehicle with appropriate instrumentation can be expected to be one of the most potent scientific tools of the Twentieth Century.

¹⁰⁴ Michael E. Ruane, "Hiroshima's Enola Gay carried 12 men, hope and the world's deadliest weapon," *Washington Post* (Aug. 5, 2020), <https://www.washingtonpost.com/graphics/2020/history/hiroshima-anniversary-enola-gay-mission/>.

¹⁰⁵ Ibid.

¹⁰⁶ Project RAND was created in 1945 as a research and development think tank by the Douglas Aircraft Company. In 1947, Project RAND formally split from Douglas becoming known as the RAND Corporation.

¹⁰⁷ RAND Corporation, *Preliminary Design of a World-Circling Spaceship* (May 2, 1946), https://www.rand.org/pubs/special_memoranda/SM11827.html.

¹⁰⁸ RAND Corporation, 2.

2. The achievement of a satellite craft by the United States would inflame the imagination of mankind, and would probably produce repercussions in the world comparable to the explosion of the atomic bomb.¹⁰⁹

While Project RAND's predictions did not provide the impetus for large-scale satellite research and development, the report evinced an interest in space technology specifically for military purposes.

The early focus on outer space developed tangentially to the larger arms race between the United States and the Soviet Union.¹¹⁰ The establishment of the United States Air Force in 1947 provided the backbone for missile development. As commander of the Strategic Air Command, General LeMay, who had initiated the Project RAND study just years earlier, focused Air Force efforts on the development of strategic bombers rather than space technology. LeMay was particularly opposed to the allocation of his limited funding toward intercontinental ballistic missiles (ICBMs), which he viewed as an "extravagant boondoggle that wouldn't perform as anticipated."¹¹¹ In light of LeMay's refusal to fund ICBM research, Air Force Vice Chief of Staff, General Thomas White, subsequently shifted the ICBM program to the Western Development Division to be led by Brigadier General Bernard A. Schriever.¹¹² Schriever's team proved successful, and in December 1957, the United States tested the Atlas ICBM. While the ICBM program proved to be an effective method of launching long-range weapons, it also provided the basis for satellite launches.

In 1955, the Technological Capabilities Panel ("TCP") of the Science Advisory Committee of the Office of Defense Mobilization submitted a recommendation to President

¹⁰⁹ *Ibid.* at 1-2.

¹¹⁰ Dolman, 91.

¹¹¹ Lawrence J. Spinetta, "White vs. LeMay: The Battle Over Ballistic Missiles," *Air Force Magazine* 96, no. 1 (January 2013), <https://www.airforcemag.com/article/0113lemay/>.

¹¹² *Ibid.*

Dwight D. Eisenhower that the United States initiate a satellite program. Specifically, the TCP recommended that space ought to operate similarly to Earth's oceans, and "favored non-aggressive, peaceful space flight operations."¹¹³ The implementation of NSC-5520, "U.S. Scientific Satellite Program," in May 1955 is often regarded as the first act of US space policy.¹¹⁴ The "course of action" section of the policy detailed the following directives:

11. Initiate a program in the Department of Defense to develop the capability of launching a small scientific satellite by 1958, with the understanding that this program will not prejudice continued research directed toward large instrumented satellites for additional research and intelligence purposes, or materially delay other major Defense programs.

12. Endeavor to launch a small scientific satellite under international auspices, such as the International Geo-physical Year, in order to emphasize its peaceful purposes, provided such international auspices are arranged in a manner which:

- a. Preserves U.S. freedom of action in the field of satellites and related programs.
- b. Does not delay or otherwise impede the U.S. satellite program and related research and development programs.
- c. Protects the security of U.S. classified information regarding such matters as the means of launching a scientific satellite.
- d. Does not involve actions which imply a requirement for prior consent by any nation over which the satellite might pass in its orbit, and thereby does not jeopardize the concept of "Freedom of Space."¹¹⁵

Notably, NSC-5520 places emphasis on the promulgation of scientific satellites rather than military surveillance satellites.

Then, in October 1957, the Soviet Union succeeded in launching the first satellite, *Sputnik I*, into outer space. In an address to the Senate Democratic Caucus on January 7, 1958, Lyndon Johnson stated:

¹¹³ R.C. Hall, "Origins of US Space Policy: Eisenhower, Open Skies, and Freedom of Space," in *Exploring the Unknown* (Washington DC: NASA, 1995), 221.

¹¹⁴ James. S. Lay Jr., NSC 5520, "U.S. Scientific Satellite Program," *Dwight D. Eisenhower Presidential Library and Museum* (May 20, 1955).

¹¹⁵ *Ibid.*, ¶11-12.

Control of space means control of the world....From space the masters of infinity would have the power to control the Earth's weather, to cause drought and flood, to change the tides and raise the levels of the sea, to divert the gulf stream and change temperate climates to frigid....There is something more important than the ultimate weapon. That is the ultimate position—the position of total control over Earth that lies somewhere in outer space...and if there is this ultimate position, then our national goal and the goal of all free men *must* be to win and hold that position.¹¹⁶

For many, the success of *Sputnik I* was a wake-up call that emphasized the potential for Soviet success in outer space. This success not only represented technological superiority but also political prowess. Echoing Johnson's claims, Lieutenant General James M. Gavin published *War and Peace in the Space Age* just months after the *Sputnik I* launch.¹¹⁷ Gavin claimed, "Of one thing we may be sure, the nation that first achieves the control of outer space will control the destiny of the human race."¹¹⁸ While both Johnson and Gavin linked success in outer space to military success, the outward policy of the United States placed an emphasis on scientific rather than militaristic advancement.

A. *The Eisenhower Approach*

In response to *Sputnik I*, President Eisenhower's space policy developed in two distinct yet symbiotic directions. Internationally, the Eisenhower administration engaged in diplomatic efforts to limit unchecked advances in space by the Soviet Union, and domestically, the administration developed a detailed space policy with the goal of securing American preeminence in outer space.

¹¹⁶ Lyndon Johnson, speech before Senate Democratic Caucus, January 7, 1958.

¹¹⁷ James M. Gavin, *War and Peace in the Space Age* (NY: Harper & Bros. Publishers, 1958).

¹¹⁸ *Ibid.*, 248.

Prior to *Sputnik I*, the United States had no official space program. However, in the years since, nearly every American president has drafted a space policy relating to the national interests in outer space. When *Sputnik* took the world by storm, President Eisenhower expressed the initial desire to operate space activities as a branch of the Department of Defense. Ultimately, space policy during the Eisenhower Administration set the stage for the complicated role of space agencies in America's future.

The Eisenhower administration's approach to space policy was premised on the notion that outer space was free for all nations to explore and utilize. In total, the Eisenhower administration produced two national space policies. Both NSC-5814/1, "Preliminary US Policy on Outer Space,"¹¹⁹ and NSC-5918, "US Policy on Outer Space,"¹²⁰ directly link space policy to the Cold War. Framing the need for a national program, NSC-5814/1 reiterates Johnson and Gavin's concerns, stating that "[t]he USSR, if it maintains its present superiority in the exploitation of outer space, will be able to use that superiority as a means of undermining the prestige and leadership of the United States and of threatening U.S. security."¹²¹ Notably, NSC-5814/1 deemed the creation and use of reconnaissance satellites "of critical importance to U.S. national security."¹²² As the first document that presents the US position on outer space use and exploration, NSC-5814/1 evinced the Eisenhower administration's interest in a controlled use of outer space under the guise of "peaceful uses." The following year, NSC-5918 further reiterated that "peaceful uses" "does not necessarily exclude military applications."¹²³ While the Eisenhower Administration clearly recognized

¹¹⁹ NSC 5814/1, *Preliminary U.S. Policy on Outer Space*, National Security Council (Aug. 18, 1958).

¹²⁰ NSC 5918, *U.S. Policy on Outer Space*, National Security Council (Dec. 17, 1959).

¹²¹ NSC 5814/1.

¹²² *Ibid.*

¹²³ NSC 5918.

and supported the militarization of outer space, the outward policies offered a restrained interpretation “to ensure that no international agreements might be reached which would result in net disadvantage to the United States by sustaining or enhancing over-all Soviet military capabilities while restricting those of the United States.”¹²⁴

Just four years after the *Sputnik* launch, the United States implemented the world’s first photoreconnaissance satellites.¹²⁵ In August 1960, Project Corona, a joint effort between the Central Intelligence Agency and the Air Force, was launched. The project was quickly jumpstarted after American U2 pilot Francis Gary Powers’ aircraft was shot down in May 1960.¹²⁶ The Corona program, which operated from 1960 to 1972, provided invaluable intelligence data during the Cold War.¹²⁷ Project Corona remained classified until February 24, 1995.¹²⁸ Outwardly, the Eisenhower administration’s strategic choice to establish a civilian space agency positioned US space efforts as inherently benevolent and non-threatening.

Established in 1958, the National Aeronautics and Space Administration (NASA) became the face of US space policy. The Eisenhower administration’s space policy consisted of a twenty-one-page memorandum that emphasized the “political implications for the national security” posed by the prospect of space technology.¹²⁹ As a civilian space agency, NASA establishes a distinct image of US space policy, specifically, one that is interested in the peaceful, cooperative, and scientific study of outer space. While framed as a purely scientific

¹²⁴ Ibid.

¹²⁵ “CORONA Fact Sheet,” *National Reconnaissance Office*, <https://www.nro.gov/History-and-Studies/Center-for-the-Study-of-National-Reconnaissance/The-CORONA-Program/Fact-Sheet/>.

¹²⁶ Nardon, 37.

¹²⁷ CORONA Fact Sheet.

¹²⁸ CORONA Fact Sheet.

¹²⁹ John Logsdon, “Is Creating a National Space Council the Best Choice?,” *The Space Review*, Jan. 3, 2017, <https://www.thespacereview.com/article/3137/1>.

agency, NASA “has served as a vector of US foreign policy.”¹³⁰ In this role, NASA operates as a form of soft power.

B. Moving the Finish Line—JFK, LBJ & the Race to the Moon

In 1957, the Soviet Union launched the first ICBM, the first man-made satellite, and sent the first animal (Laika) into space. By 1961, Soviet Yuri Gagarin became the first human in outer space. In response to the slew of Soviet successes, the United States moved the finish line to the moon. The Apollo program, which eventually sent Americans to the moon in 1969, “was a direct response to the increasing credibility of communism as a viable alternative to capitalism.”¹³¹ Particularly with the early success of Soviet space travel, the moon landing became as much a scientific feat as it was a projection of American superiority. While the John F. Kennedy administration failed to author a single national space policy before the president’s untimely demise, he became the face of Space Race.

In his September 12, 1962 Rice University address, “We Choose to Go to the Moon,” President Kennedy famously outlined America’s interests in space:

. . . [F]or the eyes of the world now look into space, to the moon and to the planets beyond, and we have vowed that we shall not see it governed by a hostile flag of conquest, but by a banner of freedom and peace. We have vowed that we shall not see space filled with weapons of mass destruction, but with instruments of knowledge and understanding.

Yet the vows of this Nation can only be fulfilled if we in this Nation are first, and, therefore, we intend to be first. In short, our leadership in science and in industry, our hopes for peace and security, our obligations to ourselves as well as others, all require us to make this effort, to solve these mysteries, to solve them for the good of all men, and to become the world's leading space-faring nation...

¹³⁰ John Krige, “NASA as an Instrument of Foreign Policy,” in *The Societal Impact of Space Flight* (Washington DC: NASA, 2007), 208.

¹³¹ Krige, 211.

We choose to go to the moon. We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win, and the others, too.¹³²

Kennedy's speech highlighted two essential elements of space policy both domestically and internationally: that space would be free of weapons of mass destruction and not subject to national appropriation. Echoing the rhetoric of Cold War foreign policy on Earth, Kennedy's vision of outer space posited the United States as the arbiter and protector of freedom. He declared that the protection of space could only be achieved "if we in this Nation are first" to the moon.¹³³ In doing so, Kennedy inextricably linked US control of outer space with benevolent protection.

In July 1962, the Kennedy administration promulgated NSCA-2454 in line with Eisenhower's earlier space policy.¹³⁴ Specifically, NSCA-2454 "focused exclusively on securing international acceptance of overhead reconnaissance conducted from outer space."¹³⁵ NSCA-2454 outlined the position the United States should take internationally, particularly reiterating the assertion that outer space is free," to "continue to avoid any position implying that reconnaissance activities in outer space are not legitimate," "should avoid any position declaring or implying that [reconnaissance activities] are not 'peaceful uses,'" and "should avoid any indication that physical countermeasures to reconnaissance

¹³² President John F. Kennedy, Address at Rice University, Houston, Texas, 12 September 1962 (the paragraph breaks follow those in the official version of President Kennedy's remarks released by the Office of the White House Press Secretary, Address at Rice University, Houston, Texas, 12 September 1962).

¹³³ Ibid.

¹³⁴ NSCA 2454, *Space Policy and Intelligence Requirements*, National Security Council (July 10, 1962).

¹³⁵ R.C. Hall, "The Evolution of U.S. National Security Space Policy and Its Legal Foundations in the 20th Century," *Journal of Space Law* 22, no. 1 (2007), 19.

vehicles would be justified . . . [and] make a positive effort to propagate the idea that interference with or attacks on any space vehicle of another country in peacetime are inadmissible and illegal.”¹³⁶ In this period prior to the creation of the Outer Space Treaty, the Eisenhower and Kennedy space policies laid the foundation for the development of international interpretations.

When President Kennedy was assassinated on November 22, 1963, Lyndon Johnson took the reins. Johnson was no stranger to space policy. In 1961, then-Vice President Johnson became the chairman of the newly established National Aeronautics Space Council, which served as the mediatory body between NASA and the Department of Defense, providing reports and recommendations to the Executive.¹³⁷ The Johnson Administration saw much of the American international effort come to fruition. As president, Johnson aided in the effort to enact the Outer Space Treaty, which was ultimately ratified by the United States Senate on April 25, 1967.

Both the Kennedy and Johnson administrations adhered to the Eisenhower administration’s conception of American space policy. By the end of the Johnson era in 1969, much of the rhetoric found in US domestic space law gained international recognition. The passage of the Outer Space Treaty established a broad framework for outer space activities that codified the prohibition on nuclear weapons and the non-appropriation principle into international law. Domestically and internationally American space policy goals were thriving, and the prospect of reaching the moon was in sight.

¹³⁶ Ibid. 20-21 (citing NSCA 2454, *Space Policy and Intelligence Requirements*, National Security Council (July 10, 1962)).

¹³⁷ Logsdon.

C. *Winning the Space Race, What Now?—Nixon, Ford & Carter*

Just six months after President Richard Nixon took office, the Apollo 11 astronauts made history as the first humans on the moon. On July 20, 1969, Neil Armstrong and Buzz Aldrin, Jr. planted an American flag and a lunar plaque stating, “[h]ere the planet Earth first set foot upon the Moon July 1969, A.D. We came in peace for all mankind.”¹³⁸ As quickly as it began, the Space Race was won (at least in the eyes of American policymakers).

For Americans, the moon landing symbolized irrefutable proof of their superiority, and of the success of the free world. With this monumental achievement, space policy stagnated. Under both President Nixon and President Gerald Ford, space policy was placed on the backburner. Internationally, two treaties governed outer space at the start of the Nixon Administration: the Outer Space Treaty and the Rescue and Return Agreement. The Nixon administration’s contribution to the body of international space law was the signing and subsequent ratification of the 1972 Liability Convention.

The late 1960s experienced a period of *détente* characterized by a lessening of the animosity between the US and USSR. During this period, President Nixon and Soviet Premier Leonid Brezhnev engaged in meetings which led to the signing of multiple treaties including the Anti-Ballistic Missile Treaty (1972) and the Helsinki Accords (1975).¹³⁹ In July 1970, the Nixon Administration published NSDM-70, “International Space Cooperation: US-USSR Activities,” which emphasized the importance of US-Soviet cooperation in outer space.¹⁴⁰ Then, in 1972, the two nations initiated the Apollo-Soyuz Test Project which culminated in

¹³⁸ Joyce Dejoie & Elizabeth Truthlova, *The Apollo 11 Memorial on the Moon*, NASA (May 14, 2018), https://starchild.gsfc.nasa.gov/docs/StarChild/space_level2/apolloll_plaque.html.

¹³⁹ “Détente,” *University of North Carolina at Chapel Hill*, <https://coldwar.unc.edu/theme/detente/>.

¹⁴⁰ Henry Kissinger, NSDM 70, *International Space Cooperation: US-USSR Activities*, National Security Council, July 10, 1970.

the 1975 docking of the American *Apollo* shuttle and the Soviet *Soyuz*.¹⁴¹ Considered the formal end of the Space Race, the televised docking of the shuttles represented a shift in the focus of Cold War policy away from space technology.¹⁴²

Like Johnson just years earlier, President Ford's ascendance to Commander in Chief was sudden. Following the Watergate scandal and the resignation of President Nixon, and the earlier departure of Vice-President Spiro Agnew, Ford was sworn in on August 9, 1974. In just three years as president, Ford aided in the negotiation and implementation of the Registration Convention, the final major international space treaty.

Domestically, the Ford administration initiated a trend toward more aggressive space policies particularly in regard to anti-satellite technology (ASAT).¹⁴³ While ASAT weapons existed prior to this time, both American and Soviet weapons testing had significantly decreased during the *détente* period; however, the 1970s ushered in a new era of hostility. In July 1976, President Ford issued NSDM-33, "Enhanced Survivability of Critical U.S. Military and Intelligence Space Systems," directing the Department of Defense as well as the Central Intelligence Agency to "prepare an aggressive time-phased, prioritized action plan" to "enhance the survivability of critical military and intelligence satellites" against kinetic and non-kinetic threats.¹⁴⁴ Both NSDM-33 and the later NSDM-345¹⁴⁵ evinced a concern for the protection of the nation's satellite technology.

¹⁴¹ Jean-Christophe Mauduit, "Collaboration around the International Space Station: science for diplomacy and its implication for U.S.-Russia and China relations," Unpublished Conference Paper, Feb. 17, 2017, 5.

¹⁴² Richard J. Samuels ed., *Encyclopedia of United States National Security* (NY: Sage Publications, 2005), 669.

¹⁴³ Moltz, 91-92.

¹⁴⁴ NSDM 333, *Enhanced Survivability of Critical U.S. Military and Intelligence Space Systems*, National Security Council, July 3, 1976.

¹⁴⁵ NSDM 345, *U.S. Anti-Satellite Capabilities*, National Security Council, Jan. 18, 1977.

While neither Ford nor his successor President Jimmy Carter are typically thought of as ‘space’ presidents, both leaders enacted space policies that mirrored Earthly conflict. The Carter presidency in particular was marred by Cold War strife, including the 1979 oil crisis and the Iranian Revolution in the same year. Amidst the chaos on Earth, Carter was in fact the first president since Eisenhower to author a single-document national space policy.¹⁴⁶ Notably, the policy states that the US repudiates “any limitations on the fundamental right to acquire data from space,” emphasizing not only the principle of “free use” generally but also of the practice of utilizing reconnaissance satellites.¹⁴⁷ The policy outlined the goals of America in space: (1) to “advance the interests of the United States through the exploration and use of space,” and (2) to “cooperate with other nations in maintaining the freedom of space for all activities which enhance the security and welfare of mankind.”¹⁴⁸ In large part, the Carter policy reiterated the principles outlined in the Outer Space Treaty, however no reference was made directly to any source of international law.¹⁴⁹

Like his predecessors, Carter emphasized the role satellite technology played in American space policy. In fact, the Carter policy provided the clearest description of the nation’s goals in respect to satellites, that the United States would maintain “active and passive remote sensing operations, in support of civil, military, and national intelligence objectives.”¹⁵⁰ Additionally, the policy clearly recognized the value of space technology for Earthly activities. Specifically, the policy outlined that “[t]he military space program shall support such functions as command and control, communications, navigation,

¹⁴⁶ PRM/NSC 23, *A Coherent U.S. Space Policy*, Mar. 28, 1977.

¹⁴⁷ *Ibid.*

¹⁴⁸ *Ibid.*, 2.

¹⁴⁹ *Ibid.*

¹⁵⁰ *Ibid.*, 3.

environmental monitoring, warning, tactical intelligence, targeting, ocean and battlefield surveillance, and space defense.”¹⁵¹

In the decade following the moon landing, the fabric of space policy had irrevocably changed. Space activities, and in particular satellites, emerged as a fundamental element of American life. There was no longer a question of whether space technology had a future, but rather *how* it would be utilized.

D. The Beginning of the End—Reagan and the Cold War legacy

Few presidents have altered the fabric of space policy as drastically as Ronald Reagan.¹⁵² Put in the gentlest words, Reagan’s space policy can be described as heavy-handed. The Reagan administration’s first statement relating to a national space policy resituated space issues under the umbrella of the National Security Council.¹⁵³ This alteration shrouded space policy in a veil of national security related secrecy, limiting the visibility of space policies. Reagan issued NSDD-42, “National Space Policy,” in July 1982.¹⁵⁴ In addition to the functions outlined in Carter’s space policy, Reagan’s policy introduced “force application.”¹⁵⁵ In doing so, the United States asserted for the first time that it would weaponize space. Further, the policy explicitly outlined that “the fact of satellite ‘photoreconnaissance’ for use in monitoring arms control agreements is UNCLASSIFIED.”¹⁵⁶ Reagan’s approach to space policy positioned America as the international gatekeeper.

¹⁵¹ Ibid.

¹⁵² Hall, 43.

¹⁵³ Ibid.

¹⁵⁴ President Ronald Reagan, National Security Decision Directive 42, *National Space Policy*, July 4, 1982.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid., 8.

While the United States would ostensibly keep the free world safe from harm, it was nonetheless the nation capable of ultimate harm as well.

In March 1983, President Reagan introduced the Strategic Defense Initiative (SDI), to “embark on a program to counter the awesome Soviet missile threat with measures that are defensive.”¹⁵⁷ Colloquially known as the Star Wars program, SDI was an immediately controversial action. In Reagan’s view, SDI was “a safeguard against the most terrifying Cold War outcome—nuclear annihilation.”¹⁵⁸ While SDI proved to be an inviable space policy due to budgeting constraints, technological roadblocks, and political disfavor, it exemplified the Cold War preoccupation with national security. SDI represented a “psychological freeing-up of the military imagination.”¹⁵⁹ Following SDI, the space-based military program operated as a unified combatant command called the United States Space Command.¹⁶⁰ The most dramatic effect of President Reagan’s policy was the reorientation of outer space as an element of national defense strategy. Whereas militarization and to a certain extent weaponization of outer space had always been an integral element of US space policy, President Reagan’s policy made it the focal point.

On June 12, 1987, President Reagan famously commanded: “Mr. Gorbachev, tear down this wall.”¹⁶¹ While it would be years before the dismantling of the Berlin Wall and the formal dissolution of the Soviet Union, the Cold War had largely run its course. The fall of the Soviet Union began gradually. Historians cite many factors that ultimately led to Soviet

¹⁵⁷ President Ronald Reagan, “Speech on Military Spending and a New Defense,” *N.Y. Times*, 24 March 1983.

¹⁵⁸ Leslie Kennedy, “Why Reagan’s ‘Star Wars’ Defense Plan Remained Science Fiction,” *History*, Jan. 22, 2019, <https://www.history.com/news/reagan-star-wars-sdi-missile-defense>.

¹⁵⁹ Roger Handberg, *Seeking New World Vistas: The Militarization of Space* (CT: Praeger, 2000), 81.

¹⁶⁰ The first United States Space Command was in effect from 1985-2002 until it was incorporated into the U.S. Strategic Command.

¹⁶¹ Ronald Reagan, “Address at the Brandenburg Gate,” June 12, 1987, <https://www.archives.gov/publications/prologue/2007/summer/berlin.html>.

decline. Some argue that democracy and capitalism would always inevitably prevail,¹⁶² while others cite the specific economic decline of the Soviet Union (rather than communism itself).¹⁶³ When examined holistically, it is clear than there was no single incident or policy that resulted in the ultimate downfall of the superpower, but rather a fatal combination of factors.

When Iraq invaded Kuwait in August 1990, the importance of satellites in American military operations was further confirmed. Under the direction of President Saddam Hussein, the Iraqi invasion of Kuwait triggered the first Gulf War.¹⁶⁴ In January 1991, President George H.W. Bush (Bush 41) initiated Operation Desert Storm to drive the Iraqi forces out of Kuwait. The success of Operation Desert Storm was due in no small part to the availability of satellite technology. In particular, the use of satellite-operated Global Positioning Systems (GPS) made it possible for the United States and its allies to “coordinate troop movements, mark minefields, and position artillery” and guide missiles.¹⁶⁵ In addition to the observational capabilities satellites provided, they also increased the speed of data gathering and dissemination. Due to the integral role of satellites, the Gulf War has been referred to as “the first space war”¹⁶⁶ and the “first satellite war.”¹⁶⁷

The timing of the Gulf War was important in the reaffirming the role of space technology in the future of American post-Cold War policy for two reasons. First, the focus

¹⁶² See Francis Fukuyama, *The End of History and the Last Man* (New York: Free Press, 1992).

¹⁶³ See M. Kort, *The Rise and Fall of the Soviet Union* (New York: Franklin Watts, 1992).

¹⁶⁴ Robert K. Brigham, *The United States and Iraq Since 1990: A Brief History with Documents* (MA: Wiley-Blackwell, 2014), 10.

¹⁶⁵ Steven Lambakis, “Space Control in Desert Storm and Beyond,” *Orbis* 39, no.3 (1995), 419.

¹⁶⁶ Steven Bruger, “Not Ready for the First Space War: What About the Second?,” *Naval War College Review* 48, no. 1 (1995), 73.

¹⁶⁷ John Burgess, “Satellites’ Gaze Provides New Look at War,” *Washington Post* (Feb. 19, 1991), <https://www.washingtonpost.com/archive/politics/1991/02/19/satellites-gaze-provides-new-look-at-war/768b19e4-a1da-4f40-8267-28a5dda48726/>.

on the Middle East did not occur in a vacuum. Conflict in the Middle East played an ongoing role in the ebb and flow of Cold War tensions. By the end of World War II, the United States saw the fate of the region as being in its hands. American leaders saw “that the whole Arab world is in ferment, that its peoples are on the threshold of a new renaissance, [and] that each of them wants to run its own show....If the United States fails them, they will turn to Russia and will be lost to our civilization.”¹⁶⁸ The 3,000-mile border between the Middle East and Soviet Union served as a near-constant reminder that the already tumultuous region was fresh for the taking. The rising nationalism in the Middle East accelerated decolonization efforts, led the Eisenhower administration to adopt a policy of *conditional* nationalism, that supported only “authentic” (America-approved) nationalist leaders. Second, the Gulf War cast away any doubt that space technology would fade away into the memory of the Cold War. While the impending fall of the Soviet Union may have signified the end of any remainder of the original Space Race, by 1990 space was firmly within the purview of American military and policy efforts.

Despite its end, the Space Race had a massive impact on the Soviet economy. In an effort to maintain parity with the United States, the Soviet Union poured capital into its space program. Like most Cold War policy, the Space Race was defined by reactivity. When one power acted, the other acted in turn. Laurence Nardon identifies the power relation between the United States and the USSR as a Foucaudian “‘confrontation strategy’ ...a fight between two established powers of equal force and legitimacy.”¹⁶⁹ While the confrontation strategy

¹⁶⁸ Douglas Little, *American Orientalism: The United States and the Middle East Since 1945* (NC: University of North Carolina Press, 2008), 162.

¹⁶⁹ Nardon, 34.

was clearly visible in the political arena, the Space Race came to symbolize a technological element of the larger power relation.

“BIG BROTHER IS WATCHING YOU”¹⁷⁰

Space technology made a war without weapons possible. While the threat of nuclear missiles and other space-based weapons certainly occupied the minds of world leaders, observation satellites irreparably shifted the nature of global conflict toward a war of information. The launch of *Sputnik I* not only paved the way for the future launch of US satellites, but also established the framework for the outer space regulatory scheme. From the outset of the Space Race, the American interest in satellite technology had been paramount. In the decade between the *Sputnik I* launch and the Outer Space Treaty, a central goal of American policymakers “was to gain international recognition of the legality of reconnaissance satellites while simultaneously discouraging military space activities that threatened those assets.”¹⁷¹ In fact, intelligence has always been an integral aspect of space activity. Per Article 3 of the Convention on International Civil Aviation (Chicago Convention), “[n]o state aircraft of a contracting State shall fly over the territory of another State or land thereon without authorization by a special agreement or otherwise, and in accordance with the terms thereof.”¹⁷² Thus, it was forbidden under international law to fly reconnaissance planes over the sovereign airspace of another state. As the 1946 Project RAND study aptly predicted, observation satellites presented a viable alternative to the legal red tape that

¹⁷⁰ George Orwell, *1984* (Istanbul: E-Kitap Project, (1949) 2020), 14.

¹⁷¹ Maogoto and Freeland, 1100.

¹⁷² Convention on International Civil Aviation art. 3, Dec. 7, 1944, 61 Stat. 1180, 15 U.N.T.S. 295.

limited aircraft surveillance.¹⁷³ Thus, in order for the United States to realize its goals in outer space, the impending promulgation of international law was a key step.

In order to subvert the problems presented by reconnaissance planes—most importantly, the international recognition of sovereign airspace—outer space needed to exist wholly separate from Earth’s atmosphere. Two distinct yet interrelated goals must be met to establish outer space as an arena for the unrestricted use of satellites. First, outer space must be free for all, and second, there cannot be any restrictions on overflight. Bolstering this position, Assistant Secretary of Defense for Research and Development Donald Quarles noted at a National Security Council meeting that, “the Soviets have now proved very helpful. Their earth satellite has overflowed practically every nation on earth, and there have thus far been no protests.”¹⁷⁴ In effect, the United States used the Soviet ‘win’ to its advantage.

When the Outer Space Treaty was finally drafted in 1967, it outlined the fundamental principles of state practice in outer space. The document itself is remarkably short, comprised of just seventeen articles. Like many other framework treaties,¹⁷⁵ the Outer Space Treaty sought only to provide the inalienable rights and responsibilities of state practice in outer space. Of particular importance is the principle of free and peaceful exploration found in Article I, the Article II non-appropriation principle, and the Article IV prohibition on weapons of mass destruction. The desire to secure international acceptance of space

¹⁷³ RAND Corporation.

¹⁷⁴ Document 348, “Memorandum of Discussion at the 339th Meeting of the National Security Council, Washington, October 10, 1957,” in *U.S. Department of State, Foreign Relations of the United States, 1955–1957*, Vol. XI, “United Nations and General International Matters” (1988).

¹⁷⁵ A framework treaty or convention “has been used to describe a variety of international agreements whose principal function is to establish a general system of governance for an issue area.” Daniel Bodansky, *The Framework Convention/Protocol Approach*, WHO (1999), 15.

militarization underscored American efforts at the United Nations. While the Soviet Union supported the interpretation that peaceful purposes meant inherently non-military, the United States asserted “that ‘peaceful’ means ‘non-aggressive’ and not ‘non-military[.]’”¹⁷⁶ This definition was perfectly tailored to America’s particular goals in space. On one hand, the prohibition on non-aggressive space activities placed international barriers on the deployment of weapons in outer space. On the other, the definition affirmed the right of satellite systems that were “passive by nature.”¹⁷⁷

Initially, American efforts to shape international space law seemed destined for failure. When the Cold War began, the United States lacked key intelligence regarding not only the size and location of Soviet forces, but also the very landscape of the nation.¹⁷⁸ Unlike the US need, “[t]he need for satellite observation was less crucial for the Soviets.”¹⁷⁹ From 1959 to 1962, the Soviet Union refused to participate in UN COPUOS efforts to draft space law. However, when negotiations for the Partial Nuclear Test Ban Treaty gained traction in 1962, Soviet support for satellites increased.¹⁸⁰ Because the treaty required verification of compliance with the treaty terms, “the Soviets gave in on satellite reconnaissance, accepting it as a non-intrusive means of verification.”¹⁸¹

As they orbit continuously around Earth, satellite systems are a continuous, yet unseen, reminder that humans are all under observation. American efforts to ensure the legality of satellite activities have extended far beyond an interest in intelligence gathering. Rather, the use of satellite technology has created the foundation for a modern surveillance

¹⁷⁶ Cheng, 99.

¹⁷⁷ Laurence Nardon, “Cold War Space Policy and Observation Satellites,” *Astropolitics* 5, no. 1 (2007), 40.

¹⁷⁸ *Ibid.*, 37.

¹⁷⁹ *Ibid.*, 39.

¹⁸⁰ Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space, and Under Water, Aug. 5, 1963.

¹⁸¹ Nardon, 41.

state, or “Panopticon.” Theoretically, the Panopticon system as it was first advanced by Jeremy Bentham’s prison design provides a blueprint for a system of total control. Moreover, modeling a Panoptic system via surveillance satellites, American efforts to ensure the legality of satellite activities extended far beyond an interest in intelligence gathering.

A. *All-Seeing, Unseen—America’s Space Panopticon*

In *Discipline and Punish: The Birth of the Prison*, Michel Foucault explores the production of the modern surveillance state. Foucault’s theory is not without fault. For one, it is remarkably Eurocentric. Additionally, Foucault makes no argument about the different ways the Panopticon would function in different political systems.¹⁸² Despite these flaws, Foucault’s analysis provides a valuable vantage point for explicating the development and evolution of the surveillance state.

Foucault’s frames his work within the context of the prison system, but his theory is more accurately an exploration of power and control.¹⁸³ Coinciding with the Enlightenment era, Foucault identifies a fundamental shift in societal governance. Pre-Enlightenment, the daily life of the average person was not closely regulated by the state. Rather, governments involved subjects in many rituals designed to shore up the authority of the monarchy. When a subject committed a transgression, rulers “signaled the existence of law by enforcing rare but atrocious corporal punishments.”¹⁸⁴ The eighteenth and nineteenth centuries ushered in a new form of power, taking a more active role in people’s daily lives. Rather than displaying

¹⁸² Nardon, 31.

¹⁸³ See David Garland, “Foucault’s Discipline and Punish—An Exposition and Critique,” *American Bar Foundation Research Journal* 11, no. 4 (1986), 848.

¹⁸⁴ Laurence Nardon, “Cold War Space Policy and Observation Satellites,” *Astropolitics* 5:1 (2007), 31-2.

the rare but gruesome show of force, this modern power sought to establish internalized discipline. Foucault traces this historical shift through the creation of the prison.

In the eighteenth century and prior, punishment took the form of public violence as a method to provide a “spectacle” with massive viewership.¹⁸⁵ Foucault argues that the shift in punitive methods away from spectacular violence that took place via eighteenth-century prison reform operated less out of an interest in the wellbeing of the incarcerated and more so in the interest of increased power. Whereas public displays of force operated as the predominant method of punishment in the pre-carceral period, the carceral model of surveillance increased power over the inmate.

Foucault frames his theory around Jeremy Bentham’s eighteenth-century design for the Panopticon prison. At the heart of Bentham’s model is a central watchtower surrounded by cells organized in a circular pattern. Unlike the earlier method of imprisonment in dank underground dungeons, Bentham’s model emphasized visibility. The play of shadow and light meant that the captives were always visible to their captors, yet rarely could see the watcher.¹⁸⁶ The effect of the Panopticon has several benefits for the surveilling party. First, it allows the feeling of surveillance to be internalized because the captives never know when they are being watched. The feeling of being watched is ever present. Thus, the Panopticon’s desired effect is realized: “to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power.”¹⁸⁷ In effect, the Panopticon creates a structure in which the few may effectively control the masses. The psychological

¹⁸⁵ Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (NY: Vintage Books, 1977 (1975)), 32.

¹⁸⁶ *Ibid.*, 200.

¹⁸⁷ *Ibid.*, 201.

impact of the panoptic structure results in internalized surveillance; it is not the *actual* presence of a guard in the watchtower that contributes to the Panopticon's function but rather the *implication* that there may be someone watching at all times.¹⁸⁸

Both Bentham and Foucault recognized the value of the Panopticon as a tool for broader societal modeling. In the context of the prison, the Panopticon is a physical manifestation of the surveillance state. More broadly addressed, the Panopticon "is an important mechanism, for it automatizes and disindividualizes power."¹⁸⁹ Further, in "The Subject and Power," Foucault asserts "that something called Power, with or without a capital letter, which is assumed to exist universally in a concentrated or diffused form, does not exist."¹⁹⁰ Rather, power is both relational and reactive.

In modern application, the Panopticon evolved out of its physical confines. Rather than a watchtower in a prison, the modern Panopticon exists in the web of technological advancements made possible almost entirely by satellite technology. In this digital age, "[t]he counterpart to the central observation tower has become the video screen."¹⁹¹ The Panopticon itself becomes an amorphous and decentralized entity. Whereas the watchtower could be seen from every prison cell, the modern Panopticon operates thousands of miles outside of the Earth's atmosphere. Like the now infamous character "Big Brother" in George Orwell's novel *1984*, satellites are often referenced and rarely seen. As the infamous symbol of government authority and surveillance, the mere implication of Big Brother instilled societal order.

¹⁸⁸ Ibid., 202.

¹⁸⁹ Ibid., 202.

¹⁹⁰ Foucault, "The Subject and Power," 787.

¹⁹¹ Shoshanna Zuboff, *In the Age of the Smart Machine* (NY: Basic Books, 1988), 323.

For satellite activity in particular, the line between international visibility and secrecy was blurred. While the civilian space program via NASA operated wholly within the public eye, military space activities were classified in 1962.¹⁹² Despite the apparent secrecy, “the U.S. government made sure other countries’ leadership knew about their new intelligence-gathering tool.”¹⁹³ That the United States was engaging in activity that was purportedly ‘top secret’ yet very obviously occurring served a unique purpose. It not only reminded the Soviet Union that it was constantly being watched, but also suggested that the Soviet awareness of this fact was fundamentally unexpected. In turn, this allowed the US to make known its expertise without overtly tipping its hand and to mold and control the narrative of surveillance in outer space.

As the Soviet Union and the United States worked tirelessly to advance satellite technology, the need for the enemy to fear constant advancement was key. Making the Soviets aware of America’s ever-improving satellite technology “participated in creating the image of a powerful enemy.”¹⁹⁴ Information control played an indispensable role in the manipulation of power during the Cold War. While the Soviet Union needed to know about the ongoing development of space-based technology, it needed only know enough to fear it. In fact, “a fundamental provision of many surveillance systems, deemed essential to protect the watched, is that observations and data will be held secure for viewing only by inspectors who have a ‘need to know.’”¹⁹⁵

¹⁹² Nardon, 33.

¹⁹³ Ibid. 33.

¹⁹⁴ Ibid., 46.

¹⁹⁵ Jerome E. Dobson & Peter F. Fisher, “The Panopticon’s Changing Geography,” *Geosurveillance* 97, no. 3 (2007), 311.

As evidenced by the shift the nation's nuclear doctrines, the US Space Panopticon proved effective in shaping Soviet actions. In 1957, development of a satellite-based Missile Defense Alarm System (Midas) sought to provide advance warning of impending nuclear attack.¹⁹⁶ While the Midas program offered the opportunity for the United States to retaliate, it did not guarantee deterrence. By 1960, satellite systems shifted the focus away from detection of Soviet missiles to holistic intelligence gathering. In a September 1967 speech, Secretary of Defense Robert McNamara announced the formal position of deterrence through Mutually Assured Destruction (MAD).¹⁹⁷ Furthermore, while the Soviet Union had supported the possibility of utilizing nuclear weapons through at least 1960, by the end of the decade the Soviet policy shifted in favor of deterrence in line with the United States.¹⁹⁸

Within this framework, satellites operated as a means of deterring nuclear threats through intelligence. The deterrence model fundamentally relies on the belief that both parties are capable of nuclear destruction. Satellite data "was fed into U.S. targeting plans and early warning systems, and reinforced the credibility of U.S. deterrence."¹⁹⁹ In the context of deterrence, satellites provided a means of persuasion to convince Soviet leaders to abide by the rules of war outlined by the United States. However, satellite use to verify Soviet compliance with international treaties proved more heated. The degeneration of US-Soviet relations in the 1970s was compounded by reports of Soviet violations.

From the advent of satellite technology in 1957 through the 1986 launch of the European Space Agency's *Spot* satellite, the two superpowers held a satellite monopoly. As

¹⁹⁶ Jeffrey Richelson, *America's Space Sentinels, DSP Satellites and National Security* (Lawrence: Kansas University Press, 1999), 19.

¹⁹⁷ Robert S. McNamara, San Francisco Speech, September 18, 1967.

¹⁹⁸ Nardon, 46.

¹⁹⁹ Nardon, 45.

the only Western nation with spacefaring capabilities, the United States not only used this advantage to shape relations with the Soviet Union but also with its allies. At the Committee on Space Research (“COSPAR”)²⁰⁰ meeting in March 1959, the American delegate informed attendees that the United States—through NASA—would aid other non-spacefaring nations with space related research projects.²⁰¹ Within three years, NASA had launched the *Alouette I* satellite in collaboration with Canada, and by 1965 “the organization had already entered into collaborative arrangements with no fewer than 69 countries.”²⁰² In providing the facilities and technology for space development, NASA established the desired international persona. Yet, as with any governmental agency, NASA had its own motives. Equipping Western capitalist nations like the United Kingdom and Canada with their own satellites ensured early preeminence in space. When it launched in September 1962, *Alouette I* was “the first satellite to be designed and built by a nation other than the United States or the Soviet Union.”²⁰³ In effect, the United States, through NASA, buttressed its own foreign policy interests in space by establishing a Western conglomerate of spacefaring nations.

The premise of cooperation allowed the United States to expand Western presence in outer space dependent on its technology. The practice of sharing civil space technology with cooperating states while simultaneously keeping surveillance technology classified fueled the panoptic structure. While the space Panopticon was and continues to be subject to limitation, the role surveillance capabilities played cannot be underestimated. Particularly in the era of the US-Soviet satellite monopoly, the United States not only utilized observation

²⁰⁰ COSPAR is an international nongovernmental organization founded in 1958 to foster collaborative scientific research on outer space.

²⁰¹ Krige, 208.

²⁰² Ibid. 209.

²⁰³ C.A. Franklin, “Alouette/ISIS: How It All Began,” IEEE International Engineering Ceremony, Shirley Bay, Ottawa, May 13, 1993.

satellites to police the actions of its enemy but also crafted a structure of surveillance dependency for its allies. As space technology became more accessible, the structure of space Panopticon evolved.

B. The “Peaceful Purposes” Rhetoric

Surveillance-focused space policy evolved out of an interest to utilize outer space while simultaneously limiting Soviet actions. The notion of using outer space “for peaceful purposes” provides the backbone for outer space policy internationally.²⁰⁴ Absent any controlling definition, the United States has consistently maintained that “peaceful” meant “non-aggressive” *not* “non-military.”²⁰⁵ While US Representative to the United Nations Henry Cabot Lodge suggested immediately after the *Sputnik I* launch that space policy ought to adopt a non-military approach to outer space, American policymakers have since supported the “non-aggressive” interpretation without divergence.²⁰⁶

In December 1962, Senator Albert Gore, Sr. presented the UN First Committee with the American interpretation that, “outer space should be used only for peaceful—that is, non-aggressive and beneficial-purposes...the test of any space activities must not be whether it is military or non-military, but whether or not is consistent with the United Nations Charter and other obligations of law.”²⁰⁷ Senator Gore further justified this position emphasizing the multipurpose nature of satellites:

²⁰⁴ Outer Space Treaty, art. II.

²⁰⁵ Cheng, 98.

²⁰⁶ Moltz, 92.

²⁰⁷ United Nations, First Committee, *Verbatim Record of the Twelve Hundred and Eighty-Ninth Meeting*, 17th Session, U.N. Doc. A/C.1/PV.1289, Dec 3., 1962, 13-14.

...A navigation satellite in outer space can guide a submarine as well as a merchant ship. The instruments which guide a space vehicle on a scientific mission can also guide a space vehicle on a military mission.

One of the consequences of these facts is that any nation may use space satellites for such purposes as observation and information-gathering. Observation from space is consistent with international law, just as is observation from the high seas. Moreover, it serves many useful purposes ...Observation satellites obviously have military as well as scientific and commercial applications. But this can provide no basis for objection to observation satellites.

With malice toward none, science has decreed that we are to live in an increasingly open world, like it or not, and openness, in the view of Government, can only serve the cause of peace. The United States, like every other nation represented here in this Committee, is determined to pursue every non-aggressive step which it considers necessary to protect its national security and the security of its friends and allies, until that day arrives when such precautions are no longer necessary.²⁰⁸

Senator Gore stressed not only the value of satellite technology for military and civilian purposes but also the goal of positioning satellite technology firmly under the “peaceful” use umbrella. Under this definition, military reconnaissance satellites provide a “non-aggressive” method of exerting power and influence. While this definition of peaceful purposes echoed throughout many space policies, it was not until President Carter that the definition was codified domestically. Specifically, NSC-37 interpreted the peaceful purposes provisions to “allow for military and intelligence-related activities in pursuit of national security and other goals” and provided that the United States would “maintain a national intelligence space program.”²⁰⁹

Despite the lack of support for non-military space, the position holds significant merit. As Former ICJ Justice and space law scholar, Manfred Lachs, asserts “[i]f [“peaceful use”] was

²⁰⁸ Ibid.

²⁰⁹ NSC-37, 1-2.

intended to forbid aggressive use only, mere reference to international law and the Charter of the United Nations would have sufficed. Is it not evident that such actions are prohibited in terrestrial environments?"²¹⁰ Article III of the Outer Space Treaty positions space law within the larger body of international law.²¹¹ This means that—as Lachs points out—all provisions of the UN Charter already apply to outer space. The requirement that “all members refrain from the threat or use of force” found in Article 2(4) of the UN Charter necessarily prohibits aggressive military activity.²¹² Under this interpretation, the peaceful purposes provision is rendered “redundant,” and thus peaceful purposes must in some way expand upon the existing prohibition against aggression.²¹³ Moreover, Bin Cheng presents the highly critical viewpoint that the “non-aggressive” standpoint supported by the United States is “potentially noxious.”²¹⁴

In large part, the peaceful purposes provision of the Outer Space Treaty as well as subsequent international law reflects the efforts of American policymakers to mold space law to favor their goals. It is generally accepted that the “peaceful purposes” provision is “interpreted as non-aggressive, meaning that there are many military activities which are considered acceptable under the terms of the [Outer Space] Treaty.”²¹⁵ The push to gain international recognition for satellite technology provides the necessary support of the American panoptic enterprise in outer space. In this regard, Foucault aptly recognized that

²¹⁰ Manfred Lachs, *The Law of Outer Space: An Experience in Contemporary Lawmaking* (MA: Martinus Mijhoff Publishers, 2010 (1972)), 105.

²¹¹ Outer Space Treaty, art. III.

²¹² UN Charter, art. 2(4).

²¹³ Lachs, 106.

²¹⁴ Cheng, *Studies in International Space Law*, 520.

²¹⁵ Dale Stephens & Cassandra Steer, “Conflicts in Space: International Humanitarian Law and Its Application to Space Warfare,” *Annals of Air & Space Law* 40 (2015), 4-5.

“surveillance is permanent in its effects, even if it is discontinuous in its action”²¹⁶ Thus, the knowledge of a panopticon and the threat of its potential continuance fostered an unbreakable relationship between satellite observation and global control.

The period following the Cold War saw a reimagining of space policy. Absent the threat of mutually assured destruction, US space policy shed its defensive façade in favor of an aggressive, imperialist space policy. While the fall of the Soviet Union represented a success for the “free world,” the end of the Cold War simultaneously opened a Pandora’s box of questions regarding the future of global power. At the outset, space had become the forum for a proxy war and absent an enemy, the future of American space policy seemed uncertain. The bipolar world view of the Cold War allowed policymakers to frame space policy as an act of resistance against the specter of communism. To grapple with these changes, US space policy required a makeover. The early evolution of post-Cold War space policy highlighted an essential feature of US foreign policy, namely, the belief freedom ought to be administered by the United States.

²¹⁶ Foucault, *Discipline and Punish*, 201.

CHAPTER THREE

THE EMPIRE'S NEW CLOTHES: POST-COLD WAR SPACE POLICY IN A UNIPOLAR WORLD

“What is the thread of western civilization that distinguished its course in history? It has to do with the preoccupation of western man with his outward command and his sense of superiority.”
-Arthur Erickson²¹⁷

In a 2018 study titled “The American Space Exploration Narrative from the Cold War through the Obama Administration,” Dora Holland and Jack O. Burns provide a content analysis of the rhetoric of national space policies from their inception through President Barack Obama’s administration.²¹⁸ Holland and Burns note five “rhetorical themes: competition [with the Soviet Union], prestige, collaboration, leadership, and a ‘new paradigm’” which they argue established the central tenets of space policy.²¹⁹ Notably, the study identifies prestige and leadership as two separate themes. Prestige encompasses the nation’s rhetoric of outer space “to increase its status globally,” whereas leadership denotes the specific interest in being the most advanced spacefaring nation.²²⁰ It is unsurprising that competition with the Soviet Union largely ceased by the end of the Cold War, but so too did the rhetoric of prestige. Linking prestige to the psychological impact of preeminence, this policy goal ceased to be a primary concern once the ‘firsts’ of space travel had been achieved.

²¹⁷ Arthur Erickson, *Arthur Erickson Quotes*, BRAINY QUOTE, 2019, https://www.brainyquote.com/quotes/arthur_erickson_297746.

²¹⁸ Dora Holland & Jack O. Burns, “The American Space Exploration Narrative from the Cold War through the Obama Administration,” in *Space Policy* 46 (2018), 4 (“Content analysis is used when examining how language embodies intent, attitudes, and biases beyond its literal textual meaning...This type of analysis can be used to understand the larger picture, rather than focusing solely on isolated words and sentences, allowing the researcher to understand the latent meaning of the content as a whole”).

²¹⁹ *Ibid.*, 2.

²²⁰ *Ibid.*, 4.

In the period immediately following the Cold War, the rhetoric of American leadership in space came to the fore, and with it, a distinct paradigm shift. Lacking the identifiable communist enemy that the Soviet Union had provided throughout the Cold War, “the United States grappled with its direction for the future in order to achieve its space exploration goals, [and] it acknowledged that this was no longer as simple as surpassing one identified rival.”²²¹ Absent the threat of mutually assured destruction, US space policy shed its defensive façade.

The post-Cold War period has witnessed an evolution in policy rhetoric with seemingly contrasting methods but a singular goal. Lacking the context of a bipolar world, the rhetoric of American power posited the nation as the gatekeeper to freedom in an even broader forum. The surging interest in collaboration in the period immediately following the Cold War appeared emblematic of the nation’s efforts to redefine space policy. While the United State continued to operate in the aggressively covert manner it always had, the empire needed a makeover. Thus, America rebranded itself to encapsulate two distinct personas in outer space. First, it prioritized collaboration and dependency on US space technology, and second, it sought to create an outer space environment where US interests would be entirely unhindered.

FROM COMPETITION TO COOPERATION--AMERICA’S NEXT STEPS

In his 1984 State of the Union address, President Ronald Reagan claimed that, “NASA will invite other countries to participate so we can strengthen peace, build prosperity, and

²²¹ Ibid., 9.

expand freedom for all who share our goals.”²²² Reagan’s words highlighted a fundamental assumption about American beliefs—that those beliefs were shared. Thus, collaboration as a goal of space policy translated as collaboration with friendly, like-minded nations. Collaboration has been fundamentally linked to a soft co-optive power focused on the desire to lead so that others would follow. Therefore, in the post-Cold War era, US leadership meant being an essential player in space that the world had no choice but to follow.

A. *The Post-Cold War President—Bush 41*

The first Bush administration saw the end of the Cold War. Prior to the fall of the Soviet Union, the Bush 41 administration had again reorganized the Executive Office advisory body. On February 1, 1989, a new National Space Council was formed.²²³ The council, chaired by Vice President Dan Quayle, was comprised of six council staff members and an executive secretary. The Bush I administration announced its national space policy in November 1989, stating that the “fundamental objective guiding United States space activities has been, and continues to be, space leadership.”²²⁴ In the new era, influence, rather than physical achievement, became the measurement of power.

In 1992, the Council was supported by the Vice President’s Space Policy Advisory Board. In August 1992, President Bush tasked the Advisory Board with preparing a report on the state of space policy to “review the nation’s space policies in the context of the end of the Cold War.”²²⁵ On December 17, 1992, the Advisory Board delivered its report, titled “A

²²² Ronald Reagan, “Address Before a Joint Session of the Congress on the State of the Union,” Ronald Reagan Presidential Library, Jan. 25, 1984 (*hereinafter* “1984 State of the Union”).

²²³ Logsdon.

²²⁴ National Space Policy NSPD-1, Nov. 2 1989, <https://fas.org/spp/military/docops/national/nspd1.htm>.

²²⁵ Vice President’s Space Policy Advisory Board, “A Post Cold War Assessment of U.S. Space Policy: A Task Group Report,” December 1992, introductory letter.

Post Cold War Assessment of U.S. Space Policy.” The Advisory Board’s report noted that “[t]he U.S. civil and national security space programs have evolved within a policy framework that reflected the international tensions, as well as the economic and technological constraints and alliance relationships of the Cold War period.”²²⁶ Absent international tensions of the Cold War, the Advisory Board determined that

Future space leadership, then, requires combining challenge, openness, quality of execution, and productive application of results. Proceeding ahead with a well-conceived, successfully executed national space program aimed at concrete objectives that are scientifically, economically, and socially beneficial, and that serve important U.S. interests, is the best way to ensure leadership in space. Leadership, in this sense, becomes both a goal in itself and the result of excellence in formulating goals for space and achieving them as planned....

It is this concept of leadership that should guide future U.S. activities in space.²²⁷

The Advisory Group’s guidance marked the implementation of a new methodology. While cooperation had been nominally relevant in prior discussions, this report presented collaboration the basis of US space policy.

Politically, collaboration served multiple goals. As the “benevolent” victors of the Cold War, the United States sought to ally its space program with the newly formed Russian Federation (Russia).²²⁸ The Cold War left Russia economically crippled, providing an open opportunity for American support. By 1992, the nations “reached initial agreement to have the U.S. Space Shuttle rendezvous with the Soviet *Mir* space station.”²²⁹ Combining forces in space, the United States made its benevolence visible on a global scale. Rather than signaling

²²⁶ Ibid., v.

²²⁷ Vice President’s Space Policy Advisory Board, 13, 15.

²²⁸ John M. Logsdon, *The Societal Impact of Space Flight* (Washington DC: NASA, 2007), 99.

²²⁹ Ibid., 99.

an end, or perhaps a digression from, previously imperialist practices in space, the push for visible cooperation functioned as a new iteration of its former imperialist goals. Particularly in regard to the space station projects, cooperation bred dependency, which in turn ensured hegemony. Additionally, the fall of the Soviet Union exacerbated the nation's existing economic decline. Thus, collaboration "provided avenues for employment to Russian scientists and engineers to work on non-military projects in the interest of the U.S., while simultaneously preventing a potentially dangerous brain drain to Third World dictatorships eager to get their hands-on sensitive technologies."²³⁰

Cooperation also served a budgetary goal. Jeffrey Manber of the Space Studies Institute explained, "How can you justify doing something if it already exists, if a political ally has it or potential ally does...The most basic [question] is whether space exploration can survive for the sake of exploration, as distinct from the machinations of the Cold War."²³¹ Even prior to the end of the Cold War, budgetary constraints were a constant concern for the space program. Once the ultimate goal of the space race—the moon landing—had been achieved, "NASA's budget shrank to less than a third of its level during the peak funding years of the Apollo project."²³² While President Reagan directed NASA to begin plans for implementing a space station in 1984, the plans were met with criticism.²³³ At the time, "the station [had] lacked a single compelling rationale," however in the wake of the Cold War, the

²³⁰ Mauduit, 7.

²³¹ Quoted in William J. Broad, "After Cold War, World's Space Plans Seek a More Down-to-Earth Basis," *NY Times*, Jan. 26, 1993, <https://www.nytimes.com/1993/01/26/science/after-cold-war-world-s-space-plans-look-a-more-down-to-earth-basis.html>.

²³² George Brown Jr., "Changing Rationales: Foreign Policy and the Space Station," *Harvard International Review* 16, no. 3 (1994), 34-35.

²³³ 1984 State of the Union.

project appeared to offer a unique opportunity for collaboration, leadership, and economic efficiency.²³⁴

B. Clinton and the International Space Station

The long road to the International Space Station (ISS) tells a story of shifting foreign policy rationales. While the project had initially been framed as a scientific feat, when President Bill Clinton took office in 1993, the ISS project took on a new identity. The Clinton administration “based its support for the joint Space Station on a new rationale: strengthening its cooperative relationship with Russia and preventing the proliferation of Russian missile technology beyond its borders.”²³⁵ The announcement coincided with Russian Prime Minister Chernomyrdin’s support of the Missile Technology Control Regime (MTCR), a multilateral regime established in 1987 to limit international proliferation of weapons of mass destruction.²³⁶

Despite Clinton’s interest in “downgrad[ing] the link between national security and civilian space,” his policy toward outer space was largely similar to his predecessors.²³⁷ Clinton’s National Space Policy, NSC-49, presented a more internationalist view of outer space.²³⁸ Specifically, the policy’s first goal was to “[e]nhance knowledge of the Earth, the solar system and the universe through human and robotic exploration.”²³⁹ This interest in global cooperation and advancement rather than a singularly American success evinced the larger policy shift at the end of the Cold War. The United State could not continue to operate

²³⁴ Brown, 35.

²³⁵ *Ibid.*

²³⁶ Tyler J. Knox, “The State of the Missile Technology Control Regime,” *Wharton School* (2017), 1.

²³⁷ Moltz, 235.

²³⁸ Office of the Press Secretary, *PDD/NSC-49 Fact Sheet National Space Policy*, Sept. 19, 1996, 1.

²³⁹ *Ibid.*

as though the communist specter loomed, and while policy itself did not undergo any significant changes, the rhetoric used to describe it did. In reality, NSC-49 carried on the military space programs from the Reagan and Bush 41 National Space Policies.

On November 20, 1998, the building blocks of the ISS were launched into space. The project was comprised of five space agencies²⁴⁰ with a total of eighteen member states. This massive, and expensive, project not only highlighted a collaborative approach to space policy, but also a commitment to funding it. The success of the Apollo project resulted in a lessened interest in space technology research. The government had poured in billions of dollars with the aim of beating the Soviet Union to the moon, and “NASA’s budget shrank to less than a third of its level” when the project was completed.²⁴¹ The ISS project not only represented international collaboration but also a commitment to the private industry rapidly developing around space technology. Thus, the ISS became a “‘testbed’ for cooperation on large-scale scientific and technological ventures.”²⁴²

The ISS is often cited as an example of the success of international cooperation in space. In a 2001 assessment, former Director of the Space Policy Institute John M. Logsdon credited the ISS project with transitioning the Russian space program into a civilian entity.²⁴³ The project, which narrowly avoided failure, represented the dualistic goals of American space policy.²⁴⁴ Outwardly, collaboration allowed the United States to reframe its space

²⁴⁰ NASA, Roscosmos (Russia), European Space Agency, Canadian Space Agency, and the National Space Development Agency of Japan.

²⁴¹ Brown Jr., 35.

²⁴² Ibid., 35.

²⁴³ NASA, “U.S.-Russian Cooperation in Human Space Flight Assessing the Impacts”, Space Policy Institute, John M. Logsdon, James R. Millar eds., (Feb. 2001).

²⁴⁴ In 1993, the proposal passed the house of representative with a 216-215 vote. U.S.-Russian Cooperation in Human Space Flight Assessing the Impacts”, Space Policy Institute, John M. Logsdon, James R. Millar eds., February 2001.

policy, freeing itself of the bipolar mindset of the Cold War, while also ensuring its visibility as a global superpower.

BIG STICK DIPLOMACY

In a speech at the Minnesota State Fair on September 2, 1901, then-Vice President Theodore Roosevelt articulated his foreign policy strategy. He stated that as president, he would “[s]peak softly, and carry a big stick.”²⁴⁵ When Roosevelt became president just two weeks later after President William McKinley was assassinated, big stick diplomacy became the defining feature of his foreign policy. For Roosevelt and his successors, big stick diplomacy reiterated the idea that while peaceful negotiation ought to be the ideal, the threat of force was never out of the question.²⁴⁶ Following the September 11, 2001 attacks, the need for Americans to carry the bigger stick was an even more important element of space policy. The finely crafted façade of post-Cold War space policies began to crack during the Bush 43 Administration. While no longer fighting the communist monolith, the War on Terror presented a new unknowable enemy. The need to affirm American superiority in outer space became a defining feature of the post-September 11, 2001 world.

²⁴⁵ Theodore Roosevelt, National Duties (Sept. 2, 1901), quoted in Nick Woltman, “Roosevelt’s ‘big stick’ line at State Fair stuck...later,” *Twin Cities Pioneer Press* (Aug. 31, 2015), <https://www.twincities.com/2015/08/31/roosevelts-big-stick-line-at-state-fair-stuck-later/>.

²⁴⁶ “Big Stick Diplomacy”, Gale Encyclopedia of U.S. Economic History (2000), <https://www.encyclopedia.com/history/encyclopedias-almanacs-transcripts-and-maps/big-stick-diplomacy>.

A. *Space Policy and the War on Terror*

On the heels of the success of the ISS, President George W. Bush (Bush 43) took office in 2001. Just days before his inauguration, the Commission to Assess United States National Security Space Management and Organization (Rumsfeld Commission)—led by Defense Secretary Donald Rumsfeld—published a report on the future of American activities in outer space.²⁴⁷ The Rumsfeld Commission cited the likelihood of a “Space Pearl Harbor” as the basis for space weapons development.²⁴⁸ The Commission called for “systems in space to deter attack on and . . . defend” American space technology.²⁴⁹

Following the September 11, 2001 attacks and subsequent military involvement in the Middle East, US foreign policy unilaterally emphasized national security and protection of American interests. The space policy reflected a belief that while “[t]he United State will seek to cooperate with other nations in the peaceful use of outer space,” it will also “[e]nable unhindered U.S. operations in and through space to defend our interests there.”²⁵⁰ The Bush 43 space policy reflected larger policy concerns of the new millennium in the face of the new “War on Terror.”

Grounded in neoconservative ideologies, the outbreak of the war in Iraq was founded upon the central assertion that American power was universal, benign, and desired. Therefore, there was a moral imperative for the incursion because Saddam Hussein was an unjust dictator who exploited his people. In his January 2002 State of the Union address, Bush explained that Iraqis “and their terrorist allies, constitute an axis of evil, arming to

²⁴⁷ Commission to Assess United States National Security Space Management and Organization, *Report of the Commission to Assess United States National Security Space Management and Organization 1-2* (Washington, D.C.: Jan. 11, 2001) (*hereinafter* “Rumsfeld Commission Report”).

²⁴⁸ *Ibid.*, 23.

²⁴⁹ *Ibid.*, Executive Summary.

²⁵⁰ *Ibid.*

threaten the peace of the world.”²⁵¹ For the early part of the war support remained high for the president’s actions as the administration and the public made sweeping assumptions about the nature of the war, the presence of weapons of mass destruction, and the correlation between Islam and totalitarianism. In this atomic world, the Bush administration explained, action must happen immediately and unilaterally; this world, they argued, was distinct with issues unique to a climate that had the potential to change at any second. Capitalizing on the public’s frenzied support in the name of security, justice, and retribution, President Bush called for pre-emptive war. Preying on the widespread anxiety, “Bush told the nation and the world that the terrorists who attacked the United States on September 11 were like ‘ticking time bombs’ set to go off without warning and fully supported by ‘outlaw regimes.’”²⁵²

As during the Cold War, space policy reflected earthly preoccupations. In August 2002, the Joint Chiefs of Staff released Publication 3-14, *Joint Doctrine for Space Operations*, which called for “space superiority” and “space control.”²⁵³ The publication echoed the Rumsfeld Commission’s focus on defense through control. In 2006, the Bush 43 administration rolled out a new National Space Policy that took a notably aggressive approach to the right of the United States to defense capabilities in space.²⁵⁴ This new national space policy reiterated the longstanding international rhetoric about the dedication to peaceful uses of space, but notably reserved the right for the United States to respond to

²⁵¹ George W. Bush, “State of the Union Address, January 29, 2002,” in Brigham, *The United States and Iraq Since 1990: A Brief History with Documents*, (Massachusetts: Wiley-Blackwell, 2014), 121.

²⁵² Brigham, *The United States and Iraq Since 1990*, 99.

²⁵³ US Department of Defense Joint Chiefs of Staff, *Joint Doctrine for Space Operations* (Aug. 9, 2002).

²⁵⁴ Office of Science & Technology Policy, Executive Office of the President, *National Space Policy of the United States of America* (Aug. 31, 2006, 2 (hereinafter “2006 Space Policy”).

a space-based adversary.²⁵⁵ Further, the policy expressly rejected any future arms control agreements perceived as “hostile to U.S. interest.”²⁵⁶

As a self-proclaimed protector of freedom, US space policy projected terrestrial interests onto a new frontier. While rhetoric evolved with the changing times, the motivation of American efforts remained constant. Policymakers heralded the obvious need for American imperial privilege in space. In positioning American interests as the interests of the “free world,” Bush’s policy articulated the central argument of US foreign policy—that America brought freedom to those who supported it.

B. The Obama Administration—A New Era in Space Policy?

President George W. Bush’s eight-year term came to an end with the inauguration of President Barack Obama in 2009. While President Obama did not initially place much focus on the future of US space policy, the Democratic president returned to the Clinton-era focus on internationalism.²⁵⁷ In 2010, the Obama Administration published a new National Space Policy which called for increased “international cooperation.”²⁵⁸ In particular, the new National Space Policy’s first principle called for the superpower “to act responsibly in space to help prevent mishaps, misperceptions, and mistrust” and to carry out “transparence and confidence-building measures.”²⁵⁹ Here, the rhetoric of space policy reflected the role of the United States as a benevolent guide rather than as a militaristic gatekeeper of outer space. However, it is largely inaccurate to read the Obama administration’s National Space Policy

²⁵⁵ Ibid.

²⁵⁶ Ibid.

²⁵⁷ Moltz, 308.

²⁵⁸ Office of Science & Technology Policy, Executive Office of the President, *National Space Policy of the United States of America*, June 28, 2010.

²⁵⁹ Ibid., 3.

as a divergence from its more bellicose predecessor. The section titled “National Space Guidelines,” called for the development of “space systems and supporting information systems and networks to support U.S. national security and enable defense and intelligence operations during times of peace, crisis, and conflicts.”²⁶⁰ Like the Bush 43 administration’s National Space Policy, this new policy reaffirmed the importance of space to national security.

In January 2011, the Department of Defense and the Office of the Director of National Intelligence published the National Security Space Strategy (NSSS).²⁶¹ The NSSS expanded upon the national security framework outlined in Obama’s National Space Policy. In relevant parts, the NSSS sought to establish space strategies to “prevent and deter aggression against space infrastructure that supports U.S. national security,” and to “prepare to defeat attacks and to operate in a degraded environment.”²⁶² While the NSSS continued to frame space militarization as a defensive necessity—that the United States “will retain the right and capabilities to respond in self-defense”—the strategy largely assumed the need for superiority as a form of deterrence.²⁶³

C. Donald Trump and the Road to Space Force

While President Donald Trump waited until December 2020—just months before his departure—to issue a National Space Policy, he was in fact a very active president in outer space. President Trump issued four Space Policy Directives (SPD) prior to his space policy.

²⁶⁰ Ibid., 13.

²⁶¹ U.S. Department of Defense & Office of the Director of National Intelligence, *National Security Space Strategy – Unclassified Summary* (January 2011).

²⁶² Ibid., 17.

²⁶³ Ibid., 10.

In December 2017, Trump published SPD-1 calling for America’s return to the moon and advancement toward Mars.²⁶⁴ Then, in February 2018, SPD-2 called for a streamlining of the process for space commercialization and called upon the Department of Commerce to create a “one-stop shop” for regulating commercial space activities.²⁶⁵ In June 2018, Trump’s SPD-3 called for a national space traffic management policy to mitigate the risk of damage to and from space objects.²⁶⁶ This policy built upon the focus on supporting private sector space enterprises presented in SPD-2, and also premised American efforts to establish greater safety in outer space as a means to “ensure continued leadership, preeminence, and freedom of action in space.”²⁶⁷ The Trump administration’s first three directives fell in line with prior space policies. However, the issuance of SPD-4 in December 2018 fundamentally altered the framework upholding US space policy since its inception.²⁶⁸

In a monumental shift, SPD-4 called for the establishment of a Space Force. SPD-4 mandated that the Department of Defense draft and submit a legislative proposal for the establishment of the United States Space Force.²⁶⁹ In March 2019, the Department of Defense submitted the legislative proposal, incorporated into the National Defense Authorization Action for the fiscal year 2020. The passage of the Space Force in December 2020 marked the creation of the first new military branch since 1947.

While it is undeniable that the United States has engaged in a pattern of militarizing outer space since the beginning of spaceflight, the creation of Space Force represented yet another shift in the rhetoric of American space policy. Trump’s policies oriented space

²⁶⁴ Space Policy Directive-1 of December 11, 2017, 82 Fed. Reg. 239.

²⁶⁵ Space Policy Directive-2 of May 24, 2018, 83 Fed. Reg. 104.

²⁶⁶ Space Policy Directive-3 of June 18, 2018, 83 Fed. Reg. 120.

²⁶⁷ *Ibid.*

²⁶⁸ Space Policy Directive-4 of February 19, 2019, 84 Fed. Reg. 6049.

²⁶⁹ *Ibid.*

policy as a purely nationalistic venture premised solely on American success. The dissonance between Trump’s vision of space and the Outer Space Treaty’s requirement that outer space “shall be free for exploration and use by all States without discrimination of any kind, on a basis of *equality*” (emphasis added), is palpable.²⁷⁰

²⁷⁰ OST, art. I.

CHAPTER FOUR

SPACE COWBOYS: US SPACE POLICY AND THE IMPERIAL IMAGINARY

“Mankind is drawn to the heavens for the same reason we were once drawn into unknown lands and across the open sea. We choose to explore space because doing so improves our lives, and lifts our national spirit. So let us continue the journey.”

-George W. Bush²⁷¹

John F. Kennedy was an unlikely frontier president. Born into a wealthy East-Coast family, Kennedy’s Ivy-League education and a clean-cut appearance contrasted vividly with the rugged frontiersmen of the nation’s past. As he stood in front of the Democratic National Convention in Los Angeles, California to accept the presidential nomination on July 16, 1960, Kennedy reimagined the frontier:

I stand tonight facing west on what was once the last frontier. From the lands that stretch three thousand miles behind me, the pioneers of old gave up their safety, their comfort and sometimes their lives to build a new world here in the West....[But] the problems are not all solved and the battles are not all won, and we stand today on the edge of a new frontier—the frontier of the 1960s, a frontier of unknown opportunities and paths, a frontier of unfulfilled hopes and threats....For the harsh facts of the matter are that we stand on this frontier at a turning point in history.²⁷²

The rhetoric of the frontier provided a powerful link to America’s origin story. In framing the Cold War politics of the 1960s as a “new frontier,” Kennedy linked the fight against communism to the rugged heroism of the Western frontier. President Kennedy called upon the frontier again in 1962 in his speech at Rice University. In this famous address, Kennedy told the nation that “[w]e choose to go to the moon.”²⁷³ For Kennedy, the race to the moon represented a measurable goal of American superiority in the Cold War. In this speech,

²⁷¹ President George W. Bush, “Remarks by the President on US Space Policy” (Jan. 14, 2004).

²⁷² John F. Kennedy, “The New Frontier” (Jul. 16, 1960).

²⁷³ John F. Kennedy, “Moon Speech at Rice University” (Sept. 12, 1962).

Kennedy shifted the frontier rhetoric to outer space, stating that “[w]hat was once the furthest outpost on the old frontier of the West will be the furthest outpost on the new frontier of science and space.”²⁷⁴ Framing space as a new—and final—frontier located it squarely within the American imagination as a place to be conquered and controlled. In fact, space policy is rife with imperial tropes. This discourse draws heavily upon the manifest destiny dicta of the nineteenth and twentieth centuries.²⁷⁵ The imperialist rhetoric of outer space, such as a reference to the final frontier, “conjures both an idea of the future (for example human settlement of Mars) and a linkage to the past (the settlement of the American west).”²⁷⁶ Manifest destiny rhetoric in space policy is rooted in the belief that humans have not only the right but the responsibility to explore space—that it is in fact, a *destiny*.

Like most American values, the rhetoric of expansionism extends beyond policymakers. In fact, many of the foundational tenets of US policy were adopted from scholars. Nineteenth-century historian Frederick Jackson Turner laid the groundwork for American imperialism when he “theorized that the availability of unsettled land throughout much of American history was the most important factor determining national development.”²⁷⁷ Widely regarded as the creator of the “Frontier Thesis,” Turner and his supporters theorized an “American” imperialism. For Turner, “the free lands of the West that constituted a safety valve for discontented Eastern masses and furnished the nationalizing impulses” underscored Manifest Destiny ideology.²⁷⁸

²⁷⁴ John F. Kennedy, Moon Speech at Rice University (Sept. 12, 1962).

²⁷⁵ Manifest destiny refers to “a multifaceted belief system that relies on both emotion and pragmatism, and which appeals to nationalist and globalist impulses.” Karl Lieb, “International Competition and Ideology in US Space Policy,” *International Studies Notes* 24, no. 3 (1999), 30.

²⁷⁶ *Ibid.*, 31.

²⁷⁷ D.R. Owrarn, “Frontier Thesis,” *The Canadian Encyclopedia*, Feb. 7, 2006, <https://www.thecanadianencyclopedia.ca/en/article/frontier-thesis>.

²⁷⁸ Lee, 77.

MANIFEST DESTINY

The United States is, and always has been, a project of empire. The constant need to take, to occupy, and to settle are defining factors of American history from its inception. Settler colonialism “a term for imperial projects in which the primary goal is to replace the local population on their land rather than exploit them for their labor,” provided the motive for Westward expansion initiated mere moments after independence.²⁷⁹ While for lawmakers and pro-American historians and thinkers alike who believed this expansion could not constitute imperialism, the process of moving into territory with the intent to control necessarily fits this definition.

The process of settler colonialism as it has existed in the ever-expanding borders of the United States is a pervasive and damaging process. In Hawai‘i, where the massive land grabs by white plantation owners resulted in subjugation of both Native Hawaiian and (primarily Asian and Pacific Islander) immigrant populations, settler colonialism brought about massive loss of cultural identity, exploitation, and racism. Writing on the impact of settler colonialism in Hawai‘i Nadine Ortega states, “[s]ettler colonialism explains the ways we, as people of color from colonized nations, become tools of white supremacy and its civilizing, ‘West is Best’ project.”²⁸⁰ It is fundamentally *impossible* to understand a history of the United States without addressing a history of settler colonialism, for the two are inextricably linked in the colonial project.

²⁷⁹ Alex Trimble Young, “Settler Sovereignty and The Rhizomatic West, or, The Significance of the Frontier in Postwestern Studies,” *Western American Literature* 48, no. 1/2 (2013), 117-18.

²⁸⁰ Nadine Ortega, “Settler Colonialism Still Defines Power in Hawaii,” *Honolulu Civil Beat* (Nov. 20, 2017), <https://www.civilbeat.org/2017/11/settler-colonialism-still-defines-power-in-hawaii/>.

While this reality existed long before John O’Sullivan coined the term Manifest Destiny, a new flavor of empire building was born from this ideology. In essence, O’Sullivan gave a name to the existing phenomena of westward expansion and, in doing so, provided an even stronger justification. John O’Sullivan’s first use of the term Manifest Destiny came in an 1845 editorial in the *Democratic Review*, a literary journal he edited.²⁸¹ Arguing in favor of the annexation of Texas, O’Sullivan wrote:

Texas is now ours...She comes within the dear and sacred designation of Our Country... [even though?] other nations have undertaken to intrude themselves ... in a spirit of hostile interference against us, for the avowed object of thwarting our policy and hampering our power, limiting our greatness and checking the fulfillment of *our manifest destiny to overspread the continent allotted by Providence* for the free development of our yearly multiplying millions.²⁸²

In an earlier 1839 article, “The Great Nation of Futurity,” O’Sullivan developed the Manifest Destiny ideology.²⁸³ O’Sullivan addressed two interrelated concepts of Manifest Destiny: that the United States was uniquely destined to move forward into the future, and that this destiny was a God-given right. Asserting that America was “nation of progress, of individual freedom, of universal enfranchisement,” O’Sullivan defined the call to expand as the responsibility “to establish on earth the moral dignity and salvation of man—the immutable truth and beneficence of God.”²⁸⁴ The Manifest Destiny ideology crafted expansion as predetermined fate rather than choice.

²⁸¹ Cited in Frederick Merk, *Manifest Destiny and Mission in American History: A Reinterpretation* (New York: Alfred A. Knopf, 1963), 27.

²⁸² John O’Sullivan, “Annexation,” *The United States Magazine and Democratic Review* Vol. 17 (New York: 1845), 5-6, 9-10 (emphasis added).

²⁸³ John O’Sullivan, “The Great Nation of Futurity,” *The United States Magazine and Democratic Review* VI:XXIII (1839).

²⁸⁴ *Ibid.*

In addition to his career as a lawyer and journalist, O’Sullivan was a member of the Young America Movement, which “concocted a new ideology of American expansion in the 1840s.”²⁸⁵ In the vast literature on Manifest Destiny, historians typically identify three themes:

1. The special virtues of the American people and their institutions;
2. America’s mission to redeem and remake the world in the image of America; and
3. A divine destiny under God’s direction to accomplish this wonderful task.²⁸⁶

Drawing on a long history of Christian superiority, Manifest Destiny relies on the presence of a preordained mission from God. In 1846, John Quincy Adams described the acquisition of the Oregon Territory as a commandment “[t]o make the wilderness blossom as the rose, to establish laws, to increase, multiple and subdue the earth, which we are commanded to do by the first behest of God Almighty.”²⁸⁷ Moreover, not only did Manifest Destiny premise expansion as a religious right, it emphasized that this right was limited to white Americans with the goal of civilizing—or eliminating—other peoples.

Manifest Destiny ideology has been steeped in a long history of expansionism. For one, Manifest Destiny is rooted in the Doctrine of Discovery. In 1493, Pope Alexander VI issued a Papal Bull “Inter Caetera,” which provided the religious justification for Spain’s exploration and conquest.²⁸⁸ Namely, the Bull declared any land that was not inhabited by Christians was effectively uninhabited and therefore open for settlement. This document, which became known as the Doctrine of Discovery, explicitly premised expansion on the

²⁸⁵ Robert V. Hine and John Mack Faragher, *The American West: A New Interpretive History* (CT: Yale University Press, 2000), 199.

²⁸⁶ Robert J. Miller, *Native America, Discovered and Conquered: Thomas Jefferson, Lewis & Clark, and Manifest Destiny* (CT: Greenwood Publishing Group, 2006), 120.

²⁸⁷ Quoted in Haynes, *Divine Destiny*, xii; from *Congressional Globe*, 29 Cong., 1 Sess., 342 (Feb. 9, 1846).

²⁸⁸ Pope Alexander VI’s Demarcation Bill, May 4, 1493 (Gilder Lehrman Collection).

presence of Christianity. In 1823, Chief Justice John Marshall cited the Doctrine of Discovery in *Johnson v. McIntosh*, holding that the doctrine gave European settlers an unalienable right to the New World.²⁸⁹

Even in the earlier years of the Republic, expansionism lived in the hearts and minds of the Founding Fathers. Jeffersonian republicanism identified “rustic simplicity” as a defining feature of the new nation.²⁹⁰ In 1803, explorers Meriwether Lewis and William Clark set out on a three-year expedition to cross the newly acquired Louisiana Territory to the Pacific Ocean. Commissioned by President Thomas Jefferson, the expedition resulted in vast scientific and cartographic advancements and paved the way for the thousands of Americans who would make the journey across the United States.²⁹¹

From roughly 1815 to 1870, the United States experienced a period of rapid economic and physical growth. Despite Jefferson’s effort to limit industrialization, America “grew from an agrarian adjunct of the European economic system to a leading industrial and financial world power.”²⁹² Geographic expansion was undergirded by a series of events that paved the way for the large-scale migration of the mid-nineteenth century. In 1823, President James Monroe delivered an address to Congress that became known as the Monroe Doctrine. In it, President Monroe asserted that North America was “henceforth not to be considered as subjects for future colonization by any European powers.”²⁹³ The Monroe Doctrine asserted the unique right of the United States to expand in the region. In effect, it posited the United

²⁸⁹ 21 U.S. 543 (1823).

²⁹⁰ John M. Blum et. al., *The National Experience: A History of the United States* 2nd ed. (NY: Harcourt, 1968), 167.

²⁹¹ Miller, 108.

²⁹² Richard Slotkin, *Gunfighter Nation: The Myth of the Frontier in Twentieth-Century* (NY: Macmillan Publishing, 1992), 16.

²⁹³ President James Monroe, Message of President James Monroe at the commencement of the first session of the 18th Congress (The Monroe Doctrine), Dec. 10, 1823.

States as an anti-colonial power while simultaneously supporting what it viewed as “domestic” expansion. Supporting the push for domestic expansion, the 1830 Indian Removal Act authorized the removal of Natives from their ancestral homelands.²⁹⁴ While the transfer of lands was, in theory, voluntary, chiefs experienced immense pressure to sign removal treaties.²⁹⁵ From 1830 to 1850, Native populations of the “Five Civilized Tribes” (Cherokee, Choctaw, Chickasaw, Muscogee, and Seminole) were involuntarily relocated into western North America, freeing land for white settlement.

The 1840s ushered in a particular brand of expansionism termed “Manifest Destiny.” On May 22, 1843, one thousand Americans left Elm Grove, Missouri bound for the Pacific Northwest on the Oregon Trail, marking the first large-scale migration westward.²⁹⁶ When President James K. Polk narrowly won the election of 1844, westward expansion became a national campaign. In the four years Polk was in office, the western United States extended to the edge of the continent through the annexation of Texas in 1845, the Oregon Territory in 1846, and the Mexican Cession via the Treaty of Guadalupe Hidalgo in 1848. By the mid-nineteenth century, the landscape of the United States had irrevocably changed. The nation that had just five decades earlier been bounded to the west by the Appalachian Mountains now reached the Pacific Ocean. Supported by John O’Sullivan’s famous words, the West became an essential part of the American ethos.

²⁹⁴ Indian Removal Act, Pub.L. 21-148, May 28, 1830.

²⁹⁵ The first treaty was signed just four months after the passage of the Act. The Treaty of Dancing Rabbit Creek moved the Choctaws to Oklahoma in a brutal forcible removal. The subsequent relocation of Natives from roughly 1830 to 1850 came to be known as the Trail of Tears, a phrase coined by a Choctaw chief.

²⁹⁶ “A thousand pioneers head West as part of the Great Emigration,” *National Geographic*, Nov. 16, 2009, <https://www.history.com/this-day-in-history/a-thousand-pioneers-head-west-on-the-oregon-trail>.

A. *The White Man's Burden*

Writing in response to the American invasion and colonization of the Philippines, poet Rudyard Kipling famously described the “White Man’s burden” as the duty to control and civilize the “new-caught, sullen peoples, Half-devil and half-child.”²⁹⁷ Kipling called for American men “to search your manhood” and engage in the God-given right of expansion. Both the process of settler colonialism at home and expansion abroad constructs not whiteness but specifically white masculinity as the ideal. While race plays an undeniable role in the imperial process, so too, does gender. Adding gender to the hierarchical framework allowed conquerors to construe their subjects as both racially inferior and also effeminate. In her seminal work *Manliness and Civilization*, Gail Bederman’s central claim is that “Americans were obsessed with the connection between manhood and race...whiteness was both a palpable fact and a manly idea for these men.”²⁹⁸ Tracing the development of national culture and ideology in the United States at the turn of the twentieth century, Bederman contends that gender and race became the defining elements of American identity both domestically and internationally.

Bederman draws upon Michel Foucault’s work, specifically discourse as “a set of ideas and practices which, taken together, organize both the way society defines certain truths about itself and the way in deploys social power.”²⁹⁹ She defines discourse as “both intellectual constructs and material practices.”³⁰⁰ Bederman’s ‘Foucaudian Framework’³⁰¹ is grounded in the notion that “intellectual knowledge and concrete power relations are

²⁹⁷ Rudyard Kipling, *The White Man’s Burden* (1899), <https://sourcebooks.fordham.edu/mod/kipling.asp>.

²⁹⁸ Gail Bederman, *Manliness and Civilization: A Cultural History of Gender and Race in the United States* (IL: University of Chicago Press, 1995), 5.

²⁹⁹ *Ibid.*, 24.

³⁰⁰ *Ibid.*, 24.

³⁰¹ My term, not Bederman’s.

mutually constitutive,” and thus each element cyclically perpetuates the other. As Bederman notes, historians have long obsessed over the turn-of-the-century middle-class men within the context of the “masculinity crisis” of the era.³⁰² She argues that a convergence of social, economic, and cultural developments created a particularly virile forum for the evolution of manhood. The Gilded Age, from roughly 1870 to 1900, was marked by massive economic growth and industrialization in the United States, resulting in marked socio-economic stratification. The burgeoning middle class began separating itself from lower classes by emphasizing education and etiquette. For the middle-class white man, power came from a man’s ability to control himself, and restraint became an ideal. Eschewing Victorian notions of masculinity, the middle class set itself apart from the lower classes by moving away from labor-based industry. The economic downturn of the 1890s challenged the middle-class way of life as unemployment rose, and the possibility for leisurely jobs declined. In addition to economic changes, women’s suffrage and the influx of immigrants challenged middle-class notions of manhood. Immigrants and laborers threatened the middle-class hold on the political fabric of American society. By the 1890s, the image of the male intellectual was replaced with the strongman.

In attempting to “remake manhood,” middle-class white men ultimately shifted the focus from “ideologies not of ‘manliness’ but of ‘masculinity.’”³⁰³ While ‘masculine’ existed as an adjective utilized strictly in contrast to feminine, Bederman argues that it provided the ideal vehicle for a new identity. She asserts that masculinity came to represent civilization. She notes that her historical inquiry seeks not to define civilization, but rather to examine

³⁰² Bederman, 11.

³⁰³ Ibid., 16.

the “process of articulation” made manifest through the promulgation of the white masculine ideal. She concludes that “race and gender cannot be studied as if they were two discrete categories.”³⁰⁴

Like Bederman, Amy Greenberg identifies the gendered nature of American expansion that has shaped the nation’s identity and challenges the historical narrative that suggests North American domestic expansion as something inherently different than later antebellum expansion.³⁰⁵ Specifically, Greenberg links the rhetoric of expansionism with Victorian-era interpretations of manhood, womanhood, and race. Critics of the ‘softness’ of Victorian men adopted what Greenberg describes as martial manhood and took on a position of “aggressive expansionism.”³⁰⁶ By contrast, other expansionists who Greenberg terms followers of restrained manhood, linked masculinity to morality and viewed Manifest Destiny as a civilizing tool to domesticate land and people. These two differing schools of thought on expansion and masculinity shaped the driving force of Manifest Destiny both continentally and abroad.

Drawing from Antonio Gramsci’s *Prison Notebooks*, Mike Donaldson defines hegemony as “persuasion of the greater part of the population, particularly through the media, and the organization of social institutions in ways that appear ‘natural,’ ‘ordinary,’ ‘normal.’”³⁰⁷ Thus hegemonic masculinity, rather than masculinity defined as any characteristic exhibited by a male-identifying person, identifies the *correct* form of maleness. As an element of R.W. Connell’s gender order theory, hegemonic masculinity serves as the

³⁰⁴ Bederman, 239.

³⁰⁵ Amy Greenberg, *Manifest Manhood and the Antebellum American Empire* (UK: Cambridge University Press, 2005).

³⁰⁶ *Ibid.*, 11.

³⁰⁷ Mike Donaldson, “What is Hegemonic Masculinity?” *Theory and Society Special Issues: Masculinities* 22, no. 5 (1993), 644.

specific 'brand' of masculinity that justifies societal hierarchy with (white) men at the zenith.³⁰⁸ Moreover, hegemonic masculinity is thus the normative and oft unattainable standard, that embodied the most "honored way of being a man, it required all other men to position themselves in relation to it, and it ideologically legitimated the global subordination of women to men."³⁰⁹ In this construction, white (Christian) American masculinity was the ideal.

Kathleen Sands writes in *America's Religious Wars* that "[l]ike religion, land has been conceived in terms of both walls and foundations."³¹⁰ The process of expansion thus required a clearly cognizable wall—the 'us' (Americans) and the 'them'—and a justification for expansion. Marrying the Protestant ethos of divine right with rugged masculine agrarianism, American expansionism moved forward as the bastion of the white male ideal. For expansion-minded leaders, the nation's "de facto religion became Americanism."³¹¹ Whereas religion could be acquired, Americanism could not.

MODERNIZING MANIFEST DESTINY – TURNER'S FRONTIER THESIS AND THE FUTURE OF EXPANSIONISM

When, in 1893, historian Frederick Jackson Turner delivered a speech at the Chicago World's Fair titled "The Significance of the Frontier in American History," the reality of the

³⁰⁸ R.W. Connell, *Masculinities*, 2nd ed. (CA: University of California Press, 2005), 77 ("Hegemonic masculinity can be defined as the configuration of gender practice which embodies the currently accepted answer to the problem of the legitimacy of patriarchy, which guarantees (or is taken to guarantee) the dominate position of men and the subordination of women.").

³⁰⁹ R.W. Connell and James W. Messerschmidt, "Hegemonic Masculinity: Rethinking the Concept," *Gender and Society* 19, no. 6 (2005), 834.

³¹⁰ Kathleen Sands, *America's Religious Wars: The Embattled Heart of Our Public Life* (CT: Yale University Press, 2019), 136.

³¹¹ *Ibid.*, 137.

American frontier had drastically changed.³¹² In this speech, Turner posited that the American frontier was closing, and there was no longer room for domestic expansion. What Turner observed was accurate—in less than a century, the population had shifted west. In 1800, less than seven percent of the U.S. population lived west of the Appalachian Mountains. By 1900, nearly sixty percent lived in the West.³¹³ For Turner, the closing of the American frontier prompted the need for new frontiers and more expansion. He defined the frontier as “the meeting point between savagery and civilization,” a constantly changing locale.³¹⁴ Turner’s “Frontier Thesis” modernized Manifest Destiny. It allowed for the tenets of Manifest Destiny—namely the divine right and duty to expand—to be applied outside of America.

The impact of the Frontier Thesis can be seen throughout U.S. foreign policy. The rhetoric of American exceptionalism provided the justification for policymakers to enter into countless wars and conflicts. Turner’s work, regarded as a cornerstone of US imperial policies, “theorized that the availability of unsettled land throughout much of American history was the most important factor determining national development.”³¹⁵ Therefore, outward expansion was a foundational element not only of US foreign policy but also of one’s identity as an American.

RACE, SPACE, AND THE SPACE RACE

Within the context of space policy and discourse, the racialization of space policy operates in two distinct realms, first through the battle over symbolism and subsequently

³¹² Frederick Jackson Turner, “The Significance of the Frontier in American History” (1893).

³¹³ Guillaume Vandenbroucke, “The U.S. Westward Expansion,” *International Economic Review* 49:1 (2008), 81.

³¹⁴ Turner, “The Significance of the Frontier in American History,” 2.

³¹⁵ Owrham.

through a battle over resources. The imperial framework of space policy requires not only government-level decision making but also the support of the masses. Outer space required mythic and symbolic importance so ingrained in the American psyche that policy decisions appeared not only justifiable but necessary.

A. *Historical Mythmaking & Imperialism in Outer Space*

Richard Slotkin has defined the interrelated elements of cultural development. *Ideology* is “the basic system of concepts, beliefs, and values that defines a society’s way of interpreting its place in the cosmos and the meaning of its history.”³¹⁶ Ideology is expressed in “symbolic narratives of *mythology*.”³¹⁷ Through myth, ideologies are framed as inevitabilities rather than as cultural constructions. In telling and retelling the myths of American history, the myth itself becomes integral to the process of remembering. Myth-making and myth-perpetuating lead to a communal cultural understanding of certain terms which “evoke an implicit understanding of the entire historical scenario that belongs to the event and of the complex interpretive tradition that has developed around it.”³¹⁸ In terms of cultural production, the myths of American history function as a mirror for societal concerns. The myths seek not only to *explain* by also to *justify* actions taken in the name of the nation.

In *Myth and Reality*, Mircea Eliade discusses how myths function and operate in society. He explains that “myth is always related to a ‘creation,’...this is why myths constitute the paradigms for all significant human acts.”³¹⁹ As the creation story for American progress,

³¹⁶ Slotkin, *Gunfighter Nation*, 5.

³¹⁷ Ibid.

³¹⁸ Ibid., 6.

³¹⁹ Mircea Eliade, *Myth and Reality* (NY: Harper Torchbooks, 1963), 18.

the frontier myth acts as a sort of “how-to” guide for American-ness; if America is fueled by the need to constantly expand, to not expand would be inherently un-American. Similarly, Joseph Campbell describes myths as “offer[ing] life models.”³²⁰ These life models “have to be appropriate to the time in which you are living.”³²¹ Thus, the frontier myth is a dynamic rather than static element of American history. What was first the impetus to expand to the western part of North America evolved into the need to expand throughout the globe and finally to expand into outer space. The function of the frontier myth is to imbue Americans with a sense of exceptionalism so deeply ingrained in their conception of national identity that it appears inextricable.

Slotkin identifies conflict as a central element of myth-making.³²² From its inception, US space policy has developed in response to a perceived threat. In space, the threat of war has fostered first militarization and more-recently all out weaponization. In establishing outer space as a domain of inevitable conflict, outer space policy functions through terror. Thus, while Article II of the Outer Space Treaty mandates that space “is not subject to national appropriation by claim of sovereignty...or by any other means,” American space policy has reimagined the very structure of imperialism.³²³ Rather than the traditional conception of imperialism through national appropriation, imperialism in outer space functions through territorialization, which Manu Karuka defines as, “inscribing a certain space as a space of violence.”³²⁴ In space, imperialism—at least on the national level—

³²⁰ Joseph Campbell, *The Power of Myth* (NY: Doubleday, 1988), 13.

³²¹ Ibid.

³²² Slotkin, 11.

³²³ OST, art. II.

³²⁴ Manu Karuka, *Empire's Tracks: Indigenous Nations, Chinese Workers, and the Transcontinental Railroad* (CA: University of California Press, 2019), 32.

operates through territorialization by “circumscribing places with territorial lines, within which imperial state enact monopolies on violence.”³²⁵

B. Putting the Frontier Myth into Practice—Dolman’s Astropolitik

In 2002, professor at the School of Advanced Air and Space Studies, Everett C. Dolman, published *Astropolitik: Classical Politics in the Space Age*.³²⁶ At the forefront of space policy discourse, Dolman utilizes the framework of traditional geopolitics³²⁷ in the context of outer space. In *Astropolitik*, Dolman attempts to employ the discourse of geopolitical theory to posit astropolitics as a new iteration of geopolitics. Drawing on the theory of *realpolitik*, which emerged out of mid-nineteenth-century Germany,³²⁸ Dolman presents *Astropolitik* as “the application of the prominent and refined realist vision of state competition into outer space policy, particularly the development and evolution of a legal and political regime for humanity’s entry into the cosmos.”³²⁹ While Dolman purports not to provide any policy recommendations, his conclusion serves as an alarming example of the power of the frontier myth.

As a theory of state power, *Astropolitik* is as unforgiving as its ancestor. A century-and-a-half before Dolman coined *Astropolitik*, *realpolitik* evolved as a pragmatic approach to political problems. The purportedly pragmatic approach to politics “teaches that in political affairs the problem of morals does not enter, that might makes right, that the strong must of

³²⁵ Ibid.

³²⁶ Everett C. Dolman, *Astropolitik: Classical Geopolitics in the Space Age* (UK: Frank Cass Publishers, 2002).

³²⁷ Broadly, geopolitics is “the study of states as spatial phenomena, with a view toward understanding the geographical bases of their power.” Geoffrey Parker, *Western Geopolitical Thought in the Twentieth Century* (NY: St. Martin’s Press, 1986), 1

³²⁸ John Bew, *Realpolitik: A History* (UK: Oxford University Press, 2015).

³²⁹ Dolman, 1.

necessity prey upon the weak in order to increase their strength.”³³⁰ Dolman’s *Astropolitik* is an attempt to reimagine traditional geopolitics within the framework of outer space, and to position the United States as the central state actor within it. Further, *Astropolitik* “presumes the state that dominates space is specifically chosen by the rigors of competition as the politically and morally *superior* nation, culture, and economy,” thus asserting first that there will be domination of space, and second that this domination will have at its very core a beneficial outcome for humankind.³³¹

In outlining the process of enacting *Astropolitik* policy, Dolman first maps outer space based on strategic value and accessibility, dividing it into four regions:

1. *Terra* – Earth and its atmosphere to the widely accepted Karmann line
2. *Earth Space* – the lowest orbital region “just beyond geostationary altitude (about 36,000km)”³³²
3. *Lunar Space* – the region between the geo-stationary orbit and Earth’s Moon
4. *Solar Space* – “everything in the solar system...beyond the moon”³³³

Earth Space, the most strategically valuable of the space regions, “is the operating medium for the military’s most advanced reconnaissance and navigation satellites, and all current and planned space-based weaponry.”³³⁴ Based on the foregoing information, *Astropolitik* policy calls for exclusive US control of *Earth Space*.³³⁵

Operating on the belief that conflict drives space policy, *Astropolitik* declares that the lack of a hostile space power at the present is more damaging to US space interests than having aggressive, competing military space programs with which to cope.”³³⁶ Further, “[t]o

³³⁰ Henry C. Emery, “What is *Realpolitik*?,” *International Journal of Ethics* 25, no. 4 (1915), 449.

³³¹ Dolman, 13.

³³² Dolman, 60.

³³³ Dolman, 60.

³³⁴ Dolman, 60.

³³⁵ Dolman, 154.

³³⁶ Dolman, 154.

leave space a neutral sanctuary could be interpreted as a sign of weakness that potential rivals might exploit.”³³⁷ Therefore, *Astropolitik* calls for a three-step policy:

First, the United States should declare that it is withdrawing from the current space regime and announce that it is establishing a principle of free-market sovereignty in space... Second, by using its current and near-term capacities, the United States should endeavor at once to seize military control of low-Earth orbit...[and] Third, a national space coordination agency should be established to define, separate, and coordinate the efforts of commercial, civilian, and military space projects...These three steps would be enough to begin the conceptual transition to an *Astropolitik* regime and ensure that the United States remains at the forefront of space power for the foreseeable future.³³⁸

Dolman’s *Astropolitik* rests on several flawed assumptions about international relations and the nature of US power. Central to this narrative is his assumption that US power is not only good but that it is harmless. The United States, “as guardian of space,” according to Dolman, would be “the benign state that has ever attempted hegemony over the greater part of the world.”³³⁹

Despite what Dolman and his supporters may believe, “space is not a lawless frontier.”³⁴⁰ As a blatant violation of international law, *Astropolitik* violates the central tenets of the Outer Space Treaty. Article II of the OST mandates that space “is not subject to national appropriation by claim of sovereignty . . . or by any other means.”³⁴¹ The non-appropriation clause was intended as a “security interest by disincentivizing states from reenacting terrestrial ‘land rushes’ and taking boundary disputes - a traditional reason for armed conflict - into space.”³⁴² In presenting a unilateral world—or rather universe—view, where

³³⁷ Duvall & Havercroft, 45.

³³⁸ Dolman, 154-5.

³³⁹ Dolman, 155.

³⁴⁰ Fraser MacDonald, “Anti-Astropolitik: Outer Space and the Orbit of Geography,” *Progress in Human Geography* 3, no. 5 (2007): 607.

³⁴¹ OST, art. II.

³⁴² Blount, 522.

power is centralized in the hands of one ‘worthy’ sovereign, Dolman writes “in the service of his empire.”³⁴³ Further, as Matthew Burris points out in his critique of *Astropolitik*, Dolman’s positionality as a professor is particularly concerning because he “is directly influencing the next generation of Air Force leaders.”³⁴⁴ Perhaps blinded by the myth of American empire, *Astropolitik* falls prey to the fallacy that US hegemony is not only inevitable but right.

Dolman presents a view of space as a vast, empty frontier ripe for the taking. Dolman highlights this blatantly imperialist mindset by inserting Frederick Jackson Turner’s Frontier Thesis into the discourse.³⁴⁵ Turner’s work, regarded as a cornerstone of US imperial policies, “theorized that the availability of unsettled land throughout much of American history was the most important factor determining national development.”³⁴⁶ Therefore, outward expansion was a foundational element not only of US foreign policy but also of one’s identity as an American. Exhibiting an apparent historical blindness, Dolman contends that “[o]ne of the many advantages of this argument is that it does not imply racial or cultural superiority,” although in reality the Frontier Thesis was inherently based on racism and the cultural extinguishment of the original peoples that existed on the land.³⁴⁷ It largely rests upon the incorrect assumption that land was not occupied before Western settlers, thus the notion of ‘open frontier’ was being perpetuated in settler consciousness to justify the destruction of land, history, and culture. In colonial discourse, this concept of *terra nullius*—empty land—constituted the backbone of Western invasion, settlement, and often

³⁴³ MacDonald, 607.

³⁴⁴ Matthew Burris, “Astroimperialism: Organizing Outer Space by the Sword,” *Strategic Studies Quarterly* 7:3 (2013), 109.

³⁴⁵ Frederick Jackson Turner, *The Frontier in American History* (1921).

³⁴⁶ Owrham.

³⁴⁷ Dolman, 22.

destruction of indigenous land.³⁴⁸ In the context of outer space, the racist elements of space policy operate differently.

C. *Prioritizing Space over Race—The Battle for Resources*

Historically, space exploration has always been a white male enterprise. In the days before the Apollo 11 launch that ultimately “won” the Space Race in 1969, Reverend David Eaton indicted government spending, stating “[t]he \$23 billion we’ve spent going to the moon has stolen money the black man needs for job retraining and schools.”³⁴⁹ A 1968 survey by the Equal Employment Opportunity Commission confirmed his view, finding that only 2.6 percent of the 100 companies surveyed had black employees, and those that did were largely in low-level jobs.³⁵⁰ In 1970, black jazz musician and poet Gil Scott-Heron delivered the spoken word poem “Whitey on the Moon,” juxtaposing the commonplace struggles to survive of black Americans to the sheer excess of space travel:

A rat done bit my sister Nell.
(with Whitey on the moon)
Her face and arms began to swell.
(and Whitey’s on the moon)
I can’t pay no doctor bill.
(but Whitey’s on the moon)
Ten years from now I’ll be paying still.
(while Whitey’s on the moon)...
Was all that money I made las’ year
(for Whitey on the moon?)
How come there ain’t no money here?
(Hm! Whitey’s on the moon)
Y’know I jus’ ‘bout had my fill
(of Whitey on the moon)

³⁴⁸ Allan Greer, “Settler Colonialism and Empire in Early America,” *William and Mary Quarterly* 76, no. 3 (July 2019): 384.

³⁴⁹ Rev. David Eaton, quoted in Jack Robertson, “Space Is Not Black,” *The Nation* (June 30, 1969), <https://www.thenation.com/article/archive/archives-space-is-not-black/>.

³⁵⁰ Robertson, “Space Is Not Black.”

I think I'll sen' these doctor bills,
Airmail special
(to Whitey on the moon)³⁵¹

Further, Scott-Heron's somber work reminds the reader (or listener) that "the social priorities that fueled the Apollo program and American space conquest—as envisaged by 'Whitey'—were deeply implicated in Black socioeconomic dispossession and racial inequality."³⁵²



Figure 1 1969 newspaper clipping of Rev. Ralph Abernathy protesting the Apollo 11 Launch³⁵³

Then, in 1976, representatives from Colombia, Ecuador, Congo, Indonesia, Kenya, Uganda, and Zaire drafted the Bogotá Declaration in an effort to subvert the non-appropriation provision in Article II of the Outer Space Treaty.³⁵⁴ The Bogotá Declaration

³⁵¹ Gil Scott-Heron, "Whitey on the Moon," quoted in Alexis Madrigal, "Gil Scott-Heron's Poem, 'Whitey on the Moon,'" *The Atlantic* (May 28, 2011), <https://www.theatlantic.com/technology/archive/2011/05/gil-scott-herons-poem-whitey-on-the-moon/239622/>.

³⁵² McKinson.

³⁵³ Matthew Delmont, *Black Quotidian: Everyday History in African American Newspapers* (CA: Stanford University Press, 2019).

³⁵⁴ "The Bogotá Declaration and the Curious Case of Geostationary Orbit," *Denver Journal of International Law & Policy* (Jan. 31, 2013), <https://djilp.org/the-bogota-declaration-and-the-curious-case-of-geostationary-orbit/>.

asserted that the geostationary orbit³⁵⁵ was a “natural resource” and thus subject to national sovereignty.³⁵⁶ The declaration, which was signed by states without spacefaring capabilities, highlighted the anxiety many felt about not reaching space fast enough. In particular, the geostationary orbit encompasses a relatively small area around the Earth, which is “allotted on a first-come-first-served basis making [it] virtually unattainable by less scientifically and economically advanced states.”³⁵⁷ Further, the Bogotá Declaration based the right to sovereign airspace on Article I of the Chicago Convention, which states that “[t]he contracting States recognize that every State has complete and exclusive sovereignty over the airspace above its territory.”³⁵⁸ Further, the Declaration argued that there was “no valid or satisfactory definition of outer space which may be advanced to support the argument that the geostationary orbit is included in the outer space.”³⁵⁹ While there is no internationally accepted delineation between Earth’s atmosphere and outer space, the boundary is typically placed between 50 miles above sea level (the US recognized boundary) and 62 miles above sea level (the Kármán Line).³⁶⁰

While the Bogotá Declaration was unsuccessful in asserting sovereignty over the geostationary orbit, the equatorial nations’ motives illuminated a pervasive outlet of

³⁵⁵ High Earth orbit, approximately 36,000 miles from Earth’s surface, is home to the geostationary (also called geosynchronous) orbit. In the geostationary orbit, satellites rotate in a 1:1 spin-orbit ration with the earth. The geostationary orbit is primarily used for weather and telecommunications satellites as it allows a satellite to remain above roughly the same location indefinitely.

³⁵⁶ Declaration of First Meeting of Equatorial Countries (Bogotá Declaration), art. 1, Dec. 3, 1976.

³⁵⁷ Matthew Thornburg, “Are the Non-Appropriation Principle and the Current Regulatory Regime Governing Geostationary Orbit Equitable for All of Earth's States?”, *MJIL* (Nov. 2018), <http://www.mjilonline.org/are-the-non-appropriation-principle-and-the-current-regulatory-regime-governing-geostationary-orbit-equitable-for-all-of-earths-states/>.

³⁵⁸ Chicago Convention, art. I.

³⁵⁹ Bogotá Declaration, art. 4.

³⁶⁰ “Where is Space?”, *NOAA* (Feb. 22, 2016), <https://www.nesdis.noaa.gov/content/where-space>.

imperialism. As of July 2020, 2,666 active satellites were in orbit.³⁶¹ Of that number, 1,308 were registered in the United States, with China in second place with 356. No international regulations limit the number of satellites a single nation may have in orbit, allowing a small number of nations to occupy the increasingly limited area. Further, since May 2019, SpaceX has been developing a satellite constellation called Starlink, with the goal of creating global satellite internet access.³⁶² In total, the Starlink plans filed with the International Telecommunication Union project twenty launches of 1500 small satellites, which would “roughly triple the number put into orbit by humans in history so far.”³⁶³ This act of physically taking up the limited space in Earth’s orbit makes it difficult if not impossible for smaller nations without spacefaring capabilities to gain access to the purportedly “free” outer space. By doing this, world powers like the United States establish dependency.

Here, the satellite Panopticon takes on a new function. Rather than exerting control simply through the coercive power of surveillance, the Panopticon physically limits movement and freedom. Because of the limited space for satellites to orbit the Earth, the control of space and national enterprise is paramount. By policing the physical space, the United States exerts biopolitical domination over less developed nations. Foucault defines biopolitics as “an expansion of numerous and diverse techniques for achieving the subjugation of bodies and the control of populations.”³⁶⁴ In space, biopower operates differently than on Earth. The control of bodies is secondary to the physical control of space.

³⁶¹ Katharina Buchholz, “The Countries with the Most Satellites in Space,” *Statista* (Jul, 14, 2020), <https://www.statista.com/chart/17107/countries-with-the-most-satellites-in-space/#:~:text=While%20the%20U.S.%20is%20the,cooperations%20come%20in%20third%20place>.

³⁶² “SpaceX’s Starlink satellite megaconstellation launches in photos,” *Space.com* (Feb. 4, 2021), <https://www.space.com/spacex-starlink-satellite-megaconstellation-launch-photos.html>.

³⁶³ Mark Harris, “SpaceX plans to put more than 40,000 satellites in space,” *NewScientist* (Oct. 17, 2019), <https://www.newscientist.com/article/2220346-spacex-plans-to-put-more-than-40000-satellites-in-space/>.

³⁶⁴ Michel Foucault, *History of Sexuality*, vol. 1 (New York: Vintage Books, 1978), 140.

In 2021, global and domestic infrastructures rely on satellites to complete innumerable daily tasks. Without satellites, humans would not have working internet, communications, mapping data, banking, and other essential services.³⁶⁵ Thus, while outer space ought to operate as a global common for the safety, security, and advancement of all nations, when access to space is fundamentally limited so too is any nation's ability to be wholly sovereign.

The Bogotá Declaration attempted to re-write the imperial narrative, using the tenets of national appropriation to ensure the right to outer space. However, as black feminist theorist Audre Lorde famously wrote, “the master’s tools will never dismantle the master’s house.”³⁶⁶ While Lorde specifically addresses the subjugation of women, her observation is widely applicable. A system designed to be anti-woman, anti-gay, anti-color, she explains, will never be fertile ground for significant social change. The Bogotá Declaration serves as a reminder of the malleability of law to fit the motives of the powerful.

D. Private Industry—The New Robber Barons

Non-governmental entities play a complicated role in space policy. In the last four decades, no agreement has outlined the growing possibilities of non-state imperialism. Private industrialization is authorized “as long as it takes place under international law and specifically under the long standing but growing regime of international space law.”³⁶⁷ In September 1982, Space Services Inc. launched the first privately owned rocket.³⁶⁸ While commercial involvement in space is now the norm, it was certainly not contemplated in the

³⁶⁵ Marissa Martin, “Here Today, Gone Tomorrow: U.S. Satellite Dependency,” *International Policy Digest* (Mar. 18, 2020), <https://intpolicydigest.org/here-today-gone-tomorrow-u-s-satellite-dependency/>.

³⁶⁶ Audre Lord, *Sister Outsider*, 2nd ed. (CA: Crossing Press, 2007), 112.

³⁶⁷ Gbenga Oduntan, “Aspects of the International Legal Regime concerning Privatization and Commercialization of Space Activities,” *Georgetown Journal of International Affairs* 17, no. 1 (2016), 80.

³⁶⁸ “Company Heritage,” *Space Services Inc.*, <https://www.spaceservicesinc.com/company-heritage/>.

early years of space flight. Absent the legal framework to address non-governmental interest in space, private industry has presented a complicated situation. For most spacefaring nations, commercial enterprises have operated under the control of government entities. In the United States, “NASA has categorized areas of commercial opportunity on the ISS and several of its other programs into three main groups: (a) users, (b) operations, and (c) new capability development.”³⁶⁹ In 2015, Congress passed the Commercial Space Launch Competitiveness Act (SPACE Act).³⁷⁰ The Act was designed to “promote the U.S. commercial space sector, and meet the United States obligations under international treaties.”³⁷¹ While the act required that all non-state enterprises operate, “in accordance with the applicable law, including the international obligations of the United States,” it remained notably silent on what these obligations were.³⁷²

In 2015, SpaceX launched the *Falcon 9* rocket at Cape Canaveral. The rocket was the first of its kind to deliver supplies to the ISS and safely return to Earth.³⁷³ This technological feat was just one step of many on the long road to Mars according to the company’s founder, Elon Musk.³⁷⁴ Musk has spent much of his illustrious career in technology publicly speaking about his desire to colonize Mars. The private ambitions of billionaires necessarily raise the question of legality. Lacking a legal framework, “the only way to secure exclusive possession

³⁶⁹ Oduntan, 80.

³⁷⁰ Spurring Private Aerospace Competitiveness and Entrepreneurship Act of 2015, Pub.L. No. 114-90, 129 Stat 704 (2015) (*hereinafter* SPACE Act).

³⁷¹ *Ibid.* § 108(a)(3).

³⁷² *Ibid.* §51302(a)(2), (3).

³⁷³ “Falcon 9,” *SpaceX* (2020) <https://spacex.com/falcon9>.

³⁷⁴ Melissa de Zwart, “Google in Space? How will space governance accommodate non-State actors?,” Unpublished Conference Paper, *4th Manfred Lachs International Conference on Conflicts in Space and the Rule of Law* (May 27-28, 2016), 2.

of property, including unmovable property, is force.”³⁷⁵ While all private companies are bound to the terms of international agreements, what will be said of the language in the Outer Space Treaty that only limits “national appropriation”?³⁷⁶ Is the action of an independent American company “national”? These questions have as yet remained unanswered.

The relationship between private actors and government activity in outer space has been further complicated by the reliance on commercial launch capability. In August 2011, NASA’s space shuttle program formally ended, placing the responsibility for government-sanctioned launches on private enterprise.³⁷⁷ On May 30, 2020, the SpaceX Crew Dragon spacecraft launched from the Kennedy Space Center in Florida carrying two NASA astronauts to the ISS.³⁷⁸ Speaking at the launch, President Trump declared that “[t]he United State has regained our place of prestige as the world leader.”³⁷⁹ As Trump delivered this statement, Americans around the country were protesting the death of George Floyd, an unarmed black man killed in police custody. Floyd’s death and the protests that followed took hold of the nation, making manifest “the ugliest of America’s fractures.”³⁸⁰ For the nation’s president to laud its prestige and international superiority in a moment so deeply emblematic of the nation’s failures speaks volumes about the inherent racism of American space policy.

³⁷⁵ Karl Leib, “State Sovereignty in Space: Current Models and Possible Futures,” *Astropolitics* 13, no. 1 (2015), 14.

³⁷⁶ OST, art. 2.

³⁷⁷ Robert Pearlman, “NASA’s Space Shuttle Program Officially Ends After Final Celebration,” *Space.com* (Sept. 1, 2011), <https://www.space.com/12804-nasa-space-shuttle-program-officially-ends.html>.

³⁷⁸ “NASA Astronauts Launch from America in Historic Test Flight of SpaceX Crew Dragon,” *NASA* (May 30, 2020), <https://www.nasa.gov/press-release/nasa-astronauts-launch-from-america-in-historic-test-flight-of-spacex-crew-dragon>.

³⁷⁹ Donald Trump, quoted in Kimberly D. McKinson, “Do Black Lives Matter in Outer Space?,” *Sapiens* (Sept. 30, 2011), <https://www.sapiens.org/culture/space-colonization-racism/>.

³⁸⁰ McKinson.

Space has consistently been shaped by utopic rhetoric, as if the act of reaching beyond Earth's atmosphere renders earthly problems like racism, colonialism, and gross inequality moot. In examining the seemingly incongruous realities of the SpaceX launch and the protests against George Floyd's tragic death, anthropologist Kimberly McKinson suggests that the two events are "undeniably tethered."³⁸¹ Examining Musk's motives for SpaceX, McKinson argues that "SpaceX's vision is one predicated on addressing future insecurity on Earth by creating and curating security for humans on Mars."³⁸² While Musk's vision anticipates the future downfall of planet Earth, for Black Americans, the insecurity and inhospitability are a present reality. Yet, Musk's vision of a colonial future on Mars likely does not contemplate the inclusion of the world's poor (and in reality anyone not incredibly wealthy) and largely non-white populations.

In fact, Musk has already come under fire for his tone deaf, if not blatantly racist, practices. In June 2020, the CEO announced that for SpaceX as well as at his car company, Tesla, "Juneteenth is henceforth considered a US holiday."³⁸³ At first, Musk was met with praise for recognizing the holiday that celebrates emancipation from slavery, however Musk clarified, "[i]t does require use of a paid-time-off day."³⁸⁴ The nominal and largely meaningless gesture proves emblematic of space policy in general; it is quick to pay lip service to equality yet hard pressed to make any effective change.

³⁸¹ McKinson.

³⁸² Ibid.

³⁸³ Elon Musk @elonmusk, Tweet (June 19, 2020), <https://twitter.com/elonmusk/status/1274025664492892160>.

³⁸⁴ Elon Musk, quoted in Marina Koren, "The SpaceX and Tesla CEO proudly announced the recognition of Juneteenth as a holiday, with one big caveat," *The Atlantic* (June 21, 2020), <https://www.theatlantic.com/science/archive/2020/06/elon-musk-juneteenth-spacex-tesla/613330/>.

Private control of outer space again threatens to replicate patterns of earthly subjugation. Concentrating space-faring capability in the hands of the wealthy elite—Elon Musk (SpaceX), Jeff Bezos (Blue Origin), and Sir Richard Branson (Virgin Galactic) to name a few—creates an outer space for the benefit of the privileged. Thus, “[t]heir endeavors to colonize Mars and their fantasies for the future of humankind must be understood in the context of the racialized histories of colonization on Earth.”³⁸⁵ Shrouded in a cloak of scientific objectivity, space exploration purports to be wholly above and separate from the racist realities of Earth. In reality, science is and never has been objective or free of racial bias. It is motivated by the desires of those who seek to benefit from one conclusion or another.

While private and governmental actors in outer space are, by definition, different, the role commercialized space plays in the understanding of a gendered and racialized space is a key element of the analysis. Jonathan Lim, legal scholar and project co-lead at Jus Ad Astra, a project focused on drafting a body of international humanitarian law for outer space, questions “whether space should continue to be considered as a global commons” in the face of growing commercialization and the dominance of the few nations with spacefaring capability.³⁸⁶ In the context of space policy, the Space Race takes on multiple meanings. While the term obviously denotes a period of global competition to achieve superiority in outer space, the term “race” not only describes literal competition to reach the heavens, but it is also a reminder of the clear racialization of outer space. Similarly, the double meaning of

³⁸⁵ McKinson.

³⁸⁶ Jonathan Lim and Jane Andrews, “Space for All Humanity: The Right of Equal Access to Space,” *Jus Ad Astra* (2021).

“space” is found in the clear territorialization that occurs in outer space. The act of literally taking up space yet again comes at the cost of non-white populations.

CHAPTER FIVE

SCIENCE FICTION AND EMPIRE: CREATING THE OTHER IN POPULAR CULTURE

“Remember, science fiction’s always been the kind of first level alert to think about things to come...Every science fiction movie I have ever seen, any one that’s worth its weight in celluloid, warns us about things that ultimately come true.”

-Steven Spielberg³⁸⁷

From the time humans looked up into the vast unknown, stories have been told of outer space. When Galileo Galilei suggested in 1609 that Earth may not in fact be the center of the universe, science fiction writing became a genre in its own right.³⁸⁸ Much of science fiction is a not fiction at all, but rather a fantastic projection of a lived reality. While it is no secret that culture is shaped by and reacts to the context in which it is created, it is easy to view fiction—and in particular science fiction—as a fanciful exploration of a non-existent world. As renowned science fiction critic Darko Suvin articulates: “[o]utside of a context that supplies the conditions of making sense, no text can be even read...Only the insertion of a text into a context makes it legible.”³⁸⁹ Despite its otherworldly setting, science fiction is steeped in the imperial realities of Earth. The unbelievability of space travel and aliens is made intelligible through the inscription of a recognizable model. Upon further examination, links between science fiction and reality are often solid, and some of these observations even pre-date the genre itself.

³⁸⁷ Steven Spielberg, Interview with Alec Cawthorne, *BBC* (Jun. 28, 2002), http://www.bbc.co.uk/films/2002/06/28/steven_spielberg_minority_report_interview.shtml

³⁸⁸ Patricia Kerslake, *Science Fiction and Empire* (UK: Liverpool University Press, 2007), 105.

³⁸⁹ Darko Suvin, “Narrative Logic, Ideological Domination, and the Range of Science Fiction: A Hypothesis with a Historical Text,” *Science Fiction Studies* 9 (1982), 1.

In 1882, First Lieutenant of the Twelfth Infantry George Wilson wrote an article titled “How Shall the American Savage be Civilized?”³⁹⁰ Wilson identified three paths (white) Americans can take: 1) “exterminate the savages,” 2) “let them alone,” or 3) “accept them as dependents of the government.”³⁹¹ While Wilson laid out these three options, it was clear that he believed the only viable method was extermination. The root of Wilson’s argument was simple—“colonize or be colonized.”³⁹² In large part, Wilson’s fear provided the basis for most of science fiction. Whether telling the story of intrepid earthlings venturing into space, or of aliens attacking Earth, that fear remains ever-present. Further, “[w]hile the science fiction industry purports to be ‘new,’ to use as a vehicle for its tenor the most advanced sciences and technologies...its ‘new’ is nonetheless delimited by the ranges and productions of the human imagination.”³⁹³ Thus, science fiction may be seen as merely a mapping of the past and present onto the future. The justification of colonization both on Earth and in outer space relies on the “us versus them” mentality. Whether portrayed as aliens or savages, constructions of the “other” provide the backbone of both science fiction and imperial history.

While science fiction is an unfairly broad term that encompasses a vast array of sub-genres, the narratives that draw upon the frontier myth almost exclusively take place in outer space. The narrative of the frontier is almost comically replicated in the exotic and uncharted realm of outer space “as the heroes of these stories moved into and occupied allegedly empty spaces, it was again the story of the advance of civilization in the struggle

³⁹⁰ George Wilson, “How Can the American Savage be Civilized?,” *Atlantic Monthly* vol. 50 (1882).

³⁹¹ *Ibid.*

³⁹² Greg Grewell, “Colonizing the Universe: Science Fictions Then, Now, and in the (Imagined) Future,” *Rocky Mountain Review of Language and Literature* vol. 55:2 (2001), 25.

³⁹³ *Ibid.*, 26.

with a new wilderness, with Indigenous aliens, and cruel villains.”³⁹⁴ The literally infinite and unknown depths of outer space fall in line with the expansionist rhetoric that underscored frontierism on Earth.

Thematically, stories about outer space painted humans as exploring pioneers of the universe. In the outer space frontier, Gary Wolfe argues, the constant tension between the rugged, individualist agrarianism of the frontier and the ever-developing urban centers was resolved in the world of science fiction. This futuristic world married frontierism with technology, offering readers “both the machine and the wilderness.”³⁹⁵ Ray Bradbury’s classic novel *The Martian Chronicles* paints a picture of the “wild west” in space.³⁹⁶ While Martians replace the trope of the Native American, the same concerns of the frontier—of the savagery of the indigenous population and the duty of humanity to civilize—plague the humans as they grapple with the new world in outer space.

Often regarded as the Golden Age of Science Fiction, the late 1930s through the 1950s witnessed an outpouring of science fiction literature, film, and television.³⁹⁷ Historians tend to agree that the Golden Age began in 1938 after John W. Campbell, Jr. became the editor of *Astounding*.³⁹⁸ As a predominantly male-driven field, science fiction draws upon many patriarchal elements. Much like non-fiction expansionism on Earth, “the desirability of empire and power over ‘lesser’ beings,” presents a racialized and gendered view of outer

³⁹⁴ Smith, 148.

³⁹⁵ Gary Wolf, quoted in Carl Abbot, *Frontiers Past and Future: Science Fiction and the American West* (KS: University of Kansas Press, 2006), 28.

³⁹⁶ Ray Bradbury, *The Martian Chronicles* (NY: Doubleday, 1950).

³⁹⁷ “Golden Age of SF,” *The Encyclopedia of Science Fiction*, http://www.sf-encyclopedia.com/entry/golden_age_of_sf (Nov. 2, 2020).

³⁹⁸ The science fiction magazine was originally named *Astounding Stories of Super-Science*, however it has endured several name changes.

space.³⁹⁹ In particular, the golden age of science fiction, “was a time when men were still men and women were pleasantly ornamental, when the alien Other was considered a threat and when new planets were there to be conquered.”⁴⁰⁰ For American writers in particular, the prospect of empire on Earth and in space seemed ripe.

SCIENCE FICTION AND ‘THE OTHER’

Often, science fiction writing assumes a future in which race is obsolete. In the face of planetary transition, aliens, and Armageddon, many writers created a seemingly “colorblind” discourse that ignored the racialized world around them. The dominant discourse emerged out of a world dominated by white, primarily male writers that blossomed from nineteenth-century literature, including Mary Shelley’s *Frankenstein* and H.G. Wells’ *Time Machine*, among others.⁴⁰¹ The world of gothic fantasy and futuristic utopias gave rise to an era of technologically and scientifically interested writers, who responded to the modernizing world around them.

As science fiction introduced foreign worlds and alien species, the characterization of the Other, as a dialectic construct between what is ideal and “everything else,” became apparent. In her 1975 essay “American SF and the Other,” Ursula Le Guin wrote:

From a social point of view most SF has been incredibly regressive and unimaginative. All those Galactic Empires, taken straight from the British Empire of 1880. All those planets — with 80 trillion miles between them! — conceived of as warring nation-states, or as colonies to be exploited, or to be nudged by the benevolent Imperium of Earth towards self-development — the White Man’s Burden all over again.⁴⁰²

³⁹⁹ Kerslake, 107-108.

⁴⁰⁰ Kerslake, 108.

⁴⁰¹ Lisa Yaszek, “Afrofuturism, science fiction, and the history of the future,” *Socialism and Democracy* 20, no. 3 (2006), 45.

⁴⁰² Ursula K. Le Guin, “American SF and the Other,” *Science Fiction Studies* 2, no. 3 (1975), 209.

For Le Guin, the Other in science fiction could take many forms: “This being can be different from you in its sex; or in its annual income; or in its way of speaking and dressing and doing things; or in the color of its skin, or the number of its legs and heads. In other words, there is the sexual Alien, and the social Alien, and the cultural Alien, and finally the racial Alien.”⁴⁰³

Tokenism in science fiction presents the reader or viewer with a non-white, sometimes non-male character but often gives little to no explanation of the role Otherness plays in that character’s identity. On the original *Star Wars* trilogy, Lando Calrissian, played by Billy Dee Williams, is a black smuggler amongst an almost entirely white or obviously alien cast, yet no mention of his obviously different skin color is mentioned. Similarly, *Star Wars: The Force Awakens* (2015) introduced John Boyega’s character, Finn, a former storm trooper who leads the rebellion to victory. In both instances, the character’s blackness is irrelevant, and while to some degree, the focus on the character’s race may evince a degree of inclusion, the very reality that there are but a handful of named characters in the series that are human and black is problematic.⁴⁰⁴ This is not to mention the franchise’s history of criticism for “tone-deaf use of caricature, especially the nods to blackface minstrelsy in Jar Jar Binks,” a Gungan from the planet Naboo.⁴⁰⁵ When Jar Jar Binks first appeared on screen in 1999 in *Episode I: The Phantom Menace*, the critique of racial caricature was almost immediate. Michael Dyson, professor of African-American studies at Columbia University, stated in a CNN interview, “I immediately knew that there were some stereotypical elements to this character that suggested black culture. The way he spoke, the way he walked... Even

⁴⁰³ Ibid.

⁴⁰⁴ It should be noted that there are several other black human characters including Mace Windu and Saw Gerrera in the *Star Wars* franchise, yet race is never addressed in the films.

⁴⁰⁵ Noah Berlatsky, “*Star Wars* and the 4 Ways Science Fiction Handles Race,” *The Atlantic* (Mar. 25, 2014), <https://www.theatlantic.com/entertainment/archive/2014/03/-em-star-wars-em-and-the-4-ways-science-fiction-handles-race/359507/>.

when he said "meesa," taken very quickly, it could (sound) like "massa, massa."⁴⁰⁶ The response from Lucasfilm promised that "[t]here is nothing in 'Star Wars' that is racially motivated. 'Star Wars' is a fantasy movie set in a galaxy far, far away. To dissect this movie as if it has some direct reference to the world we know today is absurd."⁴⁰⁷ The assertion that fantasy fundamentally cannot place a mirror to reality operates as a tool for many white science fiction writers to re-write imperial narratives in outer space without earthly constraints. Far from the entirely fictional fantasy it purports to be, *Star Wars* draws upon distinct and identifiable historical elements including nods to Japanese samurai via Jedi culture and the empire as an homage to Nazi Germany.⁴⁰⁸

In fact, while the *Star Wars* narrative positions the Empire against the Rebellion, Professor J. Andrew Denman suggests that this is not a critique of colonialism but rather a re-imagining of the American colonial struggle against Britain.⁴⁰⁹ Where the empire is the British monarchy, "the undisciplined, free-spirited rebels become the heroes — thus aligning *Star Wars* with thematic elements from the American Western even amid the trappings of British imperialist narratives."⁴¹⁰ What is clear is that while *Star Wars* may tell a fictionalized story, it is by no means 'fantasy.'

This analysis of science fiction is by no means an all-encompassing analysis of all science fiction, nor is all science fiction a product of the imperial scheme. Indeed, many science fiction writers have attempted to use the human/other dichotomy to challenge

⁴⁰⁶ Michael Dyson, quoted in Michael Okwu, "Jar Jar jarring," *CNN* (Jun. 14, 1999), <http://edition.cnn.com/SHOWBIZ/Movies/9906/09/jar.jar/>.

⁴⁰⁷ Ibid.

⁴⁰⁸ J. Andrew Denman, "Star Wars is colonial fantasy: How our future imaginings are limited by our past," *The Conversation* (Dec. 13, 2017), <https://theconversation.com/star-wars-is-colonial-fantasy-how-our-future-imaginings-are-limited-by-our-past-88752>.

⁴⁰⁹ Ibid.

⁴¹⁰ Ibid.

dominant narratives. In Phillip K. Dicks' *Do Androids Dream of Electric Sheep?*, the differences between human and android—and a symbolic difference between white and non-white people—are “presented less as absolutes than as profiling tools for law enforcement.”⁴¹¹ However, the cultural representation of outer space as is shown through much of mainstream science fiction often employs a distinct understanding of outer space that operates within an imperial framework. This is indicative of a large phenomenon of inscribing earthly narratives onto outer space in a way that re-entrenches it in the broader imperial discourse.

SCIENCE FICTION AS RESISTANCE

Just as science fiction has been utilized to perpetuate the imperialist realities of Earth, it has also been a tool of the resistance. W.E.B. Du Bois's 1920 short story “The Comet” tells the story of a black man and a white woman who are the only survivors of a comet landing in New York City.⁴¹² Faced with the reality that they may be the last two people on Earth, the woman abandons her prejudice in favor of the possibility of repopulating the planet.⁴¹³ Yet, as the pair come to realize the comet only impacted New York and the world beyond remains unharmed, the prospect of equality vanishes. According screenwriter Ytasha Womack, “[i]n Du Bois' analogy, race imbalances were so entrenched that only catastrophe could bring equity.”⁴¹⁴ In large part, “The Comet” presents a commentary on the very present racism in twentieth century America. The “speculative fiction” of Du Bois and other black science

⁴¹¹ Berlansky.

⁴¹² W.E.B. Du Bois, “The Comet,” in *Dark Matter*, ed. Sheree R. Thomas (2000), 5-18.

⁴¹³ Ibid.

⁴¹⁴ Ytasha Womack, *Afrofuturism: The World of Black Sci-Fi and Fantasy Culture* (NY: Lawrence Hill Books, 2013), 86.

fiction writers premised on the imagination and reimagination of black realities provided the basis for Afrofuturism decades later.

Afrofuturism describes a mode of expression associated with the African Diaspora. Mark Dery first coined the term itself to address the development of cyber and technoculture in relation to the black identity and experience. The movement “emerged as a means to understand the transformation of African peoples as they dealt with the oppressive forces of discrimination, the complexities of modern urban life and postmodernity.”⁴¹⁵ Furthermore, the aesthetic of Afrofuturism “establishes a counter-narrative and undermines or delegitimizes the power of the Leviathan, the Eurocentric social contract that institutionalizes and maintains the power of the elite and limits the ability of the people to collectively imagine or prepare for an alternative future.”⁴¹⁶ Grounded in the ahistorical realities of the African Diaspora—in the fact that many people of color could not trace their roots due to the violence and inhumanity of the slave trade—Dery asks, “[c]an a community whose past has been deliberately rubbed out, and whose energies have subsequently been consumed by the search for legible traces of history, imagine possible futures?”⁴¹⁷ The difference for Dery, and the Afrofuturist writers who embodied his philosophy, is that Afrofuturism is derived from black culture. It is not merely a black author writing science fiction, but rather it is a black author writing a uniquely black story.

In contrast to the seemingly homogenous humanity of white masculine twentieth-century science fiction, Afrofuturism creates a platform for intersectional discourse.

⁴¹⁵ Reynaldo Anderson & John Jennings, “Afrofuturism: The Digital Turn and the Visual Art of Kanye West,” in *The Cultural Impact of Kanye West*, ed. Julius Bailey (Palgrave Macmillan: 2014), 35.

⁴¹⁶ *Ibid.*

⁴¹⁷ Mark Dery, “Black to the Future: Interviews with Samuel R. Delany, Greg Tate and Tricia Rose,” in *Flame Wars: The Discourse of Cyberculture*, edited by Mark Dery (NC: Duke University Press, 1994), 180.

According to Afrofuturist scholar, Alondra Nelson, “Afrofuturism is a feminist movement” that works to make an egalitarian environment not just for women but also for all systemically disadvantaged populations.⁴¹⁸ Citing similar roots, many Afrofuturist feminists find similarities in the origin of sexism, racism, and classism, which “otherize” populations. Furthermore, the specific utilization of science fiction by female authors, artists, and musicians blurs the line between the “masculine genre dealing with ‘hard’ science” and “the ‘soft’ feminine genre of fantasy, driven by the supra-rational and putatively antiscientific principles of magic.”⁴¹⁹ These depictions within Afrofuturism address historic tropes of womanhood as well as the larger black experience that shape its effectiveness among a modern audience. Contrasting the “anti-racial” world of much white science fiction, many artists and writers who identify as Afrofuturists embrace the recurring images of the black female to combat erasure of their identity in a world that assumes post-slavery also implies post-racism.

Singer and self-described Afrofuturist Janelle Monáe repeatedly draws upon science fiction elements in her music. Monáe’s 2010 album *ArchAndroid* bears a clear link in title alone to science fiction.⁴²⁰ The *ArchAndroid* tells the story of ultimate freedom in the form of Monáe’s alter ego Cindi Mayweather, “a silver metallic dipped android sent to free the citizens of Metropolis from the Great Divide, a secret society using time travel to suppress freedom and love throughout the ages.”⁴²¹ The album was produced with a short film titled

⁴¹⁸ Alondra Nelson, quoted in Womack, 108.

⁴¹⁹ Madhu Duby, “Becoming Animal in Black Women’s Science Fiction,” in *Afro-Future Females: Black Writers Chart Science Fiction’s Newest New-Wave Trajectory*, ed. Marleen S. Barr (Columbus: Ohio State University Press), 32.

⁴²⁰ Janelle Monáe, *The ArchAndroid*, Recorded Album, produced by the *Wondaland Arts Society and Bad Boy Records*, 2010.

⁴²¹ Womack, 147.

“Many Moons,” set in the futuristic dystopia of Metropolis. Commenting on the theme of bodily degradation prevalent in fashion culture, “Many Moons” depicts a fashion show in which Monáe plays each of the models literally for sale at the Annual Android Auction. While the film denotes an otherworldly time and place, the pointed reference to slave auctions of centuries prior engages familiar tropes of both black existence and womanhood.

In large part, the fact that science fiction has so closely mirror lived realities of the past and present is what has allowed this subjugation to be palatable. Yet, just as popular culture has been a site for oppression, so too may it be a site for resistance. In contrast to the seemingly homogenous humanity of white masculine science fiction, Afrofuturism seeks to create a platform for intersectional discourse. In large part, Afrofuturists seek to imagine a technological future where people of color thrive. As part of a much larger and infinitely diverse site of resistance, Afrofuturism offers just one small example of the attempts of creators to push back on dominant narratives. While there are undeniable trends in *some* aspects of science fiction, primarily in regard to otherization through racialization of fictional characters, this should not be viewed in absolute terms. Rather, it is yet another outlet for expansionist rhetoric and the power of this myth to become firmly rooted in the American psyche.

CONCLUSION

Throughout the nation, and the world, sit physical reminders of the greater process of imperialism. In downtown Honolulu, between Richards Street and Punchbowl Street, stands the only palace on American soil.⁴²² Built between 1879 and 1882, Iolani Palace boasted impressive technological advancements, installing electricity four years before the White House.⁴²³ However, the palace also serves as a physical reminder of the monarchy overthrown by American imperialism. As the site of the 1893 overthrow of Queen Lili'uokalani, the palace highlights Hawai'i's tumultuous history of abuse with the United States.⁴²⁴ The clash of Hawaiian culture and foreign influence began at the first interaction between Native Hawaiians and British explorer Captain James Cook in 1778.⁴²⁵ Catalyzing the deluge of foreign traders, missionaries, and businessmen, Cook's short time in Hawai'i irreparably changed the nation's landscape. By the end of the nineteenth century and despite the opposition of the vast majority of Hawaiians, the Hawaiian monarchy had fallen victim to the overwhelming power of the US government.⁴²⁶ Throughout Hawai'i's tumultuous history, the clash of Native Hawaiian culture and American "ideals" has illuminated the devastating impact imperialism has had on BIPOC peoples.

Likewise, the four decades of clinical syphilis trials of the Tuskegee Institute are emblematic of the intersection between science and racism that has remained prevalent

⁴²² "Electric Lighting of Kingdom of Hawaii in 1888 Receives Global Recognition as an IEEE Milestone," *Iolani Palace* (May 2, 2018), <https://www.iolanipalace.org/2018/05/02/electric-lighting-kingdom-hawaii-1888-receives-global-recognition-ieee-milestone/>.

⁴²³ *Id.*

⁴²⁴ Troy J.H. Andrade, "American Overthrow." *Hawaii Bar Journal* 4, no. 4 (2018).

⁴²⁵ Eric K. Yamamoto & Ashley Kai'ao Obrey, "Reframing Redress: A 'Social Healing Through Justice' Approach to United States-Native Hawaiian and Japan-Ainu Reconciliation Initiatives," *Asian American Law Journal* 16, no. 5 (2010), 42.

⁴²⁶ Andrade, 4.

throughout African Diasporic history. In his 1994 essay, “Black to the Future,” Mark Dery stated that Black Americans are “in a very real sense, the descendants of alien abductees,” whose bodies are all too often impacted by the tech of “branding, forced sterilization, the Tuskegee experiment, or tasers.”⁴²⁷ Space technology, much like earthly advancement before it, continues to subjugate black narratives. Margot Lee Shetterly’s 2016 book *Hidden Figures* brought into public light the erasure of black female mathematicians working for NASA during the Space Race.⁴²⁸ Despite the integral role that black women including Katherine Johnson, Dorothy Vaughan, and Mary Jackson played in NASA’s success, the racism and sexism rampant within America’s own borders kept their names in a vault of secrecy. It was impossible for many Americans to fathom the reality that anyone other than white (American) men could get the nation to the moon. For segregationists, “racial integration and Communism were one and the same and posed the same kind of threat to traditional American values.”⁴²⁹ As the antithesis to the hegemonic masculinity idealized in American—and more broadly Western—society, these women were erased, their work taken without recognition.

As part of a larger narrative born of the frontier myth and the manifest destiny roots of American expansionism, the racialized and gendered realities of American space policy are magnified. The driving force of this imperial project lies in its continuity. No matter the president or the political party, the frontier mentality remains a dogma that is so distinctly American that it becomes virtually unidentifiable. In his first inaugural address on March 4,

⁴²⁷ Dery, 180.

⁴²⁸ Margot Lee Shetterly, *Hidden Figures: The American Dream and the Untold Story of the Black Women Mathematicians Who Helped Win the Space Race* (NY: Harper Collins, 2016).

⁴²⁹ *Ibid.*, 169.

1801, Thomas Jefferson described America as “the world’s best hope.”⁴³⁰ Jefferson’s pithy statement is emblematic of a centuries-old belief that the nature of American policy is inherently just, inherently necessary, and inherently benevolent. In over two centuries, the rhetoric has remained largely unchanged. Liberated from Britain’s colonial control, the nation loudly called for the right to self-determination and freedom from imperialist forces. Yet throughout American history, the United States has continually reinforced the reality that it is, and has always been, an empire. Since the 1890s—and far earlier in its conquest of North America—the United States “has been a consciously and steadily expanding nation,” projecting its power outward beyond the physical boundaries of the state itself.⁴³¹ Operating on the belief that it is “the world’s best hope,” American foreign policy is defined by a belief in the singular righteousness of American values.

Mapping the ebb and flow of American space policy through distinct historical moments, from the Cold War, the 1990s, and now into the post 9/11-era, it is clear that while US space policy has experienced several alterations, it is and always has been the production of a powerful and dangerous empire. From the early conception of space as a panopticon, exerting control through the power of surveillance, to the benevolent soft power of international cooperation, and finally through the modern practice of taking up physical space, these practices remain indicative of expansionist interests. The key piece in understanding the drive of expansionism is understanding the power of historical mythmaking. Through myth, ideologies are framed as inevitabilities rather than as cultural

⁴³⁰ Thomas Jefferson, First Inaugural Address (Mar. 4, 1801), https://avalon.law.yale.edu/19th_century/jefinau1.asp.

⁴³¹ William Appleman Williams, “The Frontier Thesis and American Foreign Policy,” *Pacific History Review* 24, no. 4 (1955), 379.

constructions. What was first the impetus to expand to the western part of North America evolved into the need to expand throughout the globe and finally to expand into outer space. The function of the frontier myth is to imbue Americans with a sense of exceptionalism so deeply ingrained in their conception of national identity that it appears inextricable. Ultimately, the imperial project in space will look similar but not wholly the same as it does on Earth. Big boats are replaced by spaceships. Kings replaced by billionaires and their loyal government backers. Flags once planted in the soil are replaced by satellites. Yet the vision of white masculine superiority remains spatially stationary.

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