How did the research that was published in this journal impact your direction?

Publishing my research in *The Owl* had quite the impact on my academic future. While doing the research was exciting and informative, engaging with the academic community at Florida State and sharing my research with others really helped me make the most of my time at Florida State.

In light of various abusive attacks seen across the globe, some of which involve terrorist groups like that of 9/11 and the recent attacks on Paris - how do you think the US will respond to this in terms of space weaponry?

The increased weaponization of space is certainly being influenced by concerns with terrorism. The most apparent impact, I think, is the advancement of communication and surveillance satellite technology allowing for more rapid and precise responses to events in far away places. While communication and surveillance aren’t technically the weaponization of space, they certainly play a vital role in making it possible.
Have you gone on to further study this topic?

I haven’t done additional research on American presidential politics or international space law since publishing in *The Owl*. But I have incorporated historical analyses and aspects of international law in my current research.

What was the main reason you wanted to share your research in this journal?

I transferred to Florida State after attending community college and was planning on going to graduate school. I knew that being involved in research would look great on graduate school applications, but I wasn’t aware of all the opportunities that researching and working with *The Owl* would afford me.

Have you gone on to further study this topic?

I haven’t done additional research on American presidential politics or international space law since publishing in *The Owl*. But I have incorporated historical analyses and aspects of international law in my current research.

In your opinion, do the new findings about flowing water on Mars, findings that imply the possibility of life on Mars, change the way the international community will handle the legislation of outer space?

I don’t think the way international laws regarding space (or Mars) are created or managed will change. States that have the most to gain from attempting to create particular laws will try to do so, and states that have the most to lose from those laws will argue against them. States that don’t want to abide by international laws regarding Mars will weigh the risks of breaking those laws and act accordingly. Enforcing such laws could be impossible or incredibly costly.

What was your biggest take away from your undergraduate research experience?

I learned how important it is to take the initiative. Florida State offers so many opportunities for students to advance themselves professionally and showcase their talents, but you have to make the effort to seek out those opportunities.
INTERNATIONAL SECURITY IN SPACE: PRESIDENTIAL LEADERSHIP AND THE FUTURE OF OUTER SPACE

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Abstract:
This work juxtaposes the history and current state of America’s involvement in militarizing outer space against the peaceful ideals that frame the Outer Space Treaty of 1967, which was dramatically shaped by the United States and the space race mentality of the Cold War. This work seeks to shed light on the actual objectives and intentions of American outer space policies, past and present. Attention is focused on the influence of the office of the president and the prevailing attitudes towards the weaponization of space that seemingly contradict the peaceful ideals set forth in the Outer Space Treaty of 1967. By analyzing the early years of American space exploration, a distinct pattern of American exceptionalism can be seen. This pattern, when viewed in light of more recent American space policies that have consistently chipped away at the international agreements concerning the weaponization of outer space, clearly predicts the eventual withdrawal of the United States from the Outer Space Treaty in favor of strategically unilateral defensive posturing.
in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (Outer Space Treaty), was initiated by the United States in order to prevent the Soviets’ early leading position in the space race from evolving into a distinct military advantage. Regardless of the peaceful ideals set forth in the Outer Space Treaty, the Cold War mindset that fostered its creation was the compelling force behind the early space endeavors of the United States and perpetuated the notion of an arms race in outer space. This same mindset may be partly to blame for the “American exemptionalism” that has been the impetus for the slow, but steady, devolution of the Outer Space Treaty and the ideals that it espouses. American exemptionalism has been defined as the “ways in which the United States actually exempts itself from certain international law rules and agreements, even ones that it may have played a critical role in framing.” Despite being the initiator of the Outer Space Treaty, the United States is now by far the world’s leading power in space-based weapons and defense systems. Analyses of the international political climates surrounding key U.S. benchmarks in space exploration will show how early attempts to garner national pride have progressed to military posturing. The United States’ comprehensive weaponization of outer space and eventual withdrawal from the Outer Space Treaty can be predicted by examining more recent events and U.S. military policies.

Although outer space may seem like a unique arena for the conducting of international politics, it shares its defining features and governing principles with two earthly realms: Antarctica and the high seas. As the world’s lands were divided by the sovereign states of the Westphalian system, the high seas and the entirely unsettled Antarctic region remained outside of the territorial system that had taken form. It wasn’t until disputes over these areas began in the 20th century that the unique subset of modern international laws was established. The common aspect shared by outer space, Antarctica and the world’s oceans is a principle in modern law called the Common Heritage of Mankind. The main purpose of this principle, which is based on the five essential mandates that follow, is to ensure that regions shared by the world’s population remain perpetually untarnished. The first element dictates that common areas are to remain free from appropriation. No entity, government, corporation or peoples can lay claim to ownership of these areas. Secondly, management of these areas is to be shared by all people. This requires that those making decisions in regards to these regions act as representatives of all mankind.
rather than of their respective nations. Exploitation of shared areas is not specifically forbidden, however; the third element requires that these resources benefit all mankind and not solely the exploiting nation. The fourth element, which figures prominently in this paper, preserves these expanses exclusively for peaceful purposes. The installation of military bases and the conducting of weapons testing and other related activities are prohibited. Scientific research, according to the final element, is acceptable but the local ecologies are to remain undamaged - These five elements of the Common Heritage of Mankind principle ensure maximum benefit for the current generations, while preserving these benefits for all future generations as well. Although the Common Heritage of Mankind principle is espoused in the Outer Space Treaty, it seems that the intense competition of the Cold War overshadowed the peaceful and diplomatic intentions articulated therein. A closer look at the history of space exploration reveals possible ulterior motives for establishing outer space initiatives under such a regime and also explains certain ambiguities contained within its doctrines.

FOUNDING FATHERS OF OUTER SPACE EXPLORATION

The foundation of the United States’ space program was put into place under the leadership of President Dwight D. Eisenhower in the 1950s. Conventional wisdom of the time awarded great notoriety and influence to the first country to enter space. Eisenhower was determined to prevent communist regimes from gaining this advantage. He aimed to accomplish this while simultaneously renouncing the very idea of a “space race” between the U.S.S.R. and the United States, so as to lessen perceptions of aggression by the American military. In order to accomplish this dual task he relied on the guise of civilian research projects as cover stories for reconnaissance and the testing of rockets and satellites. Hiding his agenda’s true nature would not only ease tensions, but it would also allow the United States to quietly set a precedent for “freedom of space” without drawing world attention to the accomplishment. The establishment of this precedent was one of the main initiatives set forth by Eisenhower’s Technological Capabilities Panel (TCP), a group led by the president of the Massachusetts Institute of Technology. The TCP was put together to ascertain America’s ability to counter Soviet attacks using the latest technologies. Determining the Soviets’ military capabilities would require intelligence reconnaissance, but flying over the airspace of another country without permission violated international laws and was likely to be perceived as an act of aggression. However, up until that time, the term “airspace” had remained undefined, so Eisenhower’s team sought to establish the upper bounds of the Soviets’ airspace by launching a very small satellite that would orbit at a much higher
altitude than any air-craft that was available at the time. This satellite was designed simply to set the precedent for international airspace that would allow a larger intelligence satellite to fly over the region in the future.\textsuperscript{10} Despite this initiative, the American military was not able to produce a satellite as quickly as Eisenhower had hoped, so an alternate plan was created. In January 1956, hundreds of balloons equipped with photographic equipment were set to drift high over the Soviet Union as part of a scientific study of clouds. The balloons were rigged to to a much lower altitude at night so as not to provoke the Soviets into rapidly devising a high-altitude weapons system that could interrupt future American reconnaissance programs. Shortly after the launch, however, the Soviets held a press conference, displaying dozens of American spy balloons that had been shot down at night, and lambasted the supposedly peaceful program as a violation of their sovereignty.\textsuperscript{11}

Despite this embarrassing set-back, the plans for another reconnaissance mission were nearing completion. The U-2 spy plane, which was being portrayed as yet another civilian weather program, would fly over the Soviet Union a few months later at nearly 70000 feet, taking pictures of the landscape in search of military installations. It was quickly detected by the Soviets, but no objections of airspace violation were raised. Rather than reveal their inability to shoot down an object at that high an altitude, the Soviets remained silent and allowed the “civilian weather program” to continue without acknowledging the situation.\textsuperscript{12} This acquiescence was a promising sign for the future of Vanguard, America’s first satellite program. Because the U-2 civilian cover story was effective, despite the Soviets’ awareness of the espionage, the National Security Council declared that the Vanguard program should also be framed as a civilian project.\textsuperscript{13} This time it was the International Geophysical Year (IGY), modeled after two previous periods of concerted international research of the Earth’s polar regions, dubbed Polar Years, that would serve as the cover story for gathering intelligence using America’s first satellite.\textsuperscript{14} Despite the implied consent that would be given to the passage of international scientific satellites during the IGY, a legal adviser to the Department of State at the time stated, “The United States Government has not recognized any top or upper limit to its sovereignty.”\textsuperscript{15} In fact, he continued, the United States “has plainly asserted its complete and exclusive sovereignty over the airspace above its territory,” and did not forfeit any portion of its sovereignty “in the higher regions of space.”\textsuperscript{16} In addition, it was made clear to several Congressional committees that foreign satellites flying above American territory would not constitute precedence.\textsuperscript{17}

A great shock came in October 1957 when Sputnik I, the first satellite to enter space, was launched by the Soviet Union. The Americans had been beaten to outer space and, according to many, the political value of this feat was immense. About a month later, Sputnik 2, a much larger satellite
The space race was not off to a promising start for America. Immediately after the launch of the first Soviet satellite, Senator Lyndon B. Johnson, chairman of the Preparedness Investigation Subcommittee, organized an investigation to determine the best way for the U.S. to build a preeminent space program. Special committees had also been formed by the House of Representatives, the Department of Defense, Department of State, Bureau of the Budget, and the Executive Branch. All of these committees agreed that the creation of a new agency was needed to spearhead America's efforts in space exploration. It was also agreed that a civilian agency would better secure prestige for the United States, despite Eisenhower's contention that outer space remain under the domain of the Department of Defense. The National Aeronautics and Space Act of 1958, which effectively created the NASA space program, declared that “it is the policy of the United States that activities in space should be devoted to peaceful purposes for the benefit of all mankind.” Just a few weeks after the formation of NASA, Johnson proposed to the United Nations the creation of an Ad hoc Committee on the Peaceful Uses of Outer Space, saying:

[I]f nations proceed unilaterally.... we know that the advances into space may only mean adding a new dimension to warfare. If, however, we proceed along the orderly course of full cooperation we shall by the very fact of cooperation make the most substantial contribution yet made toward perfecting peace.

Several countries, most notably the U.S.S.R., initially opposed the committee, based on its call for majority voting; however, it was eventually agreed upon that decisions would be made by consensus. This new United Nations committee, created at the behest of the United States in 1958 and concerned with the protection of outer space from potential conflict, would be the setting for the eventual creation of the Outer Space Treaty in 1967. In just a few years, the realm of outer space had advanced from a propagandized goal among the Cold War superpowers to a supposedly peaceful realm supported by an international treaty. Despite the proclamation of outer space as a peaceful environment, however; Eisenhower’s silent merging of the military establishment with the scientific community would arguably become his legacy.

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community would arguably become his legacy. Indeed, his fare-well speech in 1961 warned against the very military-industrial complex that he helped to create in response to the Soviet threat of preeminence in space.

A vital element in keeping the peace is our military establishment. Our arms must be mighty, ready for instant action, so that no potential aggressor may be tempted to risk his own destruction. We have been compelled to create a permanent armaments industry of vast proportions… This conjunction of an immense military establishment and a large arms industry is new in the American experience… recognize the imperative need for this development. Yet we must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society. In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist. We must never let the weight of this combination endanger our liberties or democratic processes. We should take nothing for granted. Only an alert and knowledgeable citizenry can compel the proper meshing of the huge industrial and military machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together. Akin to, and largely responsible for the sweeping changes in our industrial-military posture, has been the technological revolution during recent decades.

As John F. Kennedy took office, he did not appear to be as knowledgeable about or concerned with American space policy, despite the momentous happenings of the previous administration. The decisions made during his presidency however, would have a tremendous impact on the direction the U.S. space program would take. During his campaign, Kennedy was a staunch critic of the lead in the space race Eisenhower had given to the Soviets. This American disadvantage was exacerbated when the U.S.S.R. managed to send the first astronaut to outer space just three months into Kennedy’s presidential term. The failure of the Bay of Pigs invasion one week later did little to help prove Kennedy’s perceived track record against the Soviet Union. The president issued a memo to then-Vice President Lyndon B. Johnson calling for a monumental space feat that would not only serve as a political diversion from the blows to his early credibility but would also have unifying effect upon the general public:

Do we have a chance of beating the Soviets by putting a laboratory in space, or by a trip around the moon, or by a rocket to land on the moon, or by a rocket to go to the moon and back with a man? Is there any other space program which promises dramatic results in which we could win?

The same day that this memo was given to Johnson, Kennedy was
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quoted by reporters as saying, “If we can get to the moon before the Russians, we should.” Kennedy’s naming of Johnson as the new chairman of the President’s Space Council, along with Kennedy’s proclamation of a newly revived space race, firmly established America’s aggressive in space exploration that would persist throughout the 1960s. The official announcement of the Apollo program in May of 1961 meant that NASA would have to revise the long-range goals that were established during the Eisenhower administration. These orderly plans involved building a reusable spacecraft that would help make space operations more routine and the construction of a permanently inhabited space station. Only after these goals were accomplished did NASA intend on sending a man to the moon. Although Kennedy’s desire to demonstrate American superiority had little practical merit outside of its propaganda value, the Apollo missions would greatly increase the size, scope, and budget of NASA during the early 1960s. In 1965, the funding for NASA claimed 5.3 percent of the overall federal budget, a significant margin above the typical one percent for all NASA budgets since.

DETERIORATION OF THE COMMON HERITAGE OF MANKIND

President Ronald Reagan began the process of undermining the philosophical basis of the Common Heritage of Mankind principle when the United States became the only major power to vote against the U.N. Convention on the Law of the Sea due to the “deep seabed mining part of the convention [that did] not meet United States objectives.” Reagan’s focus on economics and market forces directly resulted in a departure from international cooperation that had continued for decades and promised to be the undoing of the Outer Space Treaty. His reinterpretation of the Anti-Ballistic Missile (ABM) Treaty of 1972 also served to fracture America’s record of international cooperation. The ABM Treaty was an essential U.S.-Soviet arms control policy during the Cold War that reinforced the model of mutual deterrence by prohibiting the construction by either country of defensive shields. The Strategic Defense Initiative, often referred to as the “Star Wars” program was an elaborate and costly program that stood in opposition to the ABM Treaty. This program, the largest peacetime defense project in U.S. history, was lauded by Reagan in the early 1980s and called for the extensive use of space weaponry. The administration’s argument for reinterpretation of the ABM Treaty hinged on semantics and was denigrated by the Senate Foreign Relations Committee as “the most flagrant abuse of the Constitution’s treaty power in 200 years of American history.” The Strategic Defense Initiative was eventually squelched by Congress and never materialized during Reagan’s Presidency.

Another distinct shift in U.S. policy came when President Bill
Clinton allowed the military testing of a Mid Infrared Advanced Chemical Laser against an active Air Force satellite. Although no treaties were in place to prevent anti-satellite war-fare, space-faring nations had been reluctant to develop systems that could jeopardize the sizeable global network of intelligence and private communication satellites. The testing of this laser was met with intense disapproval from Congress and Russian President Boris Yeltsin. Further reinterpretation of the ABM Treaty continued during the Clinton administration and included actual construction of defensive infrastructure, while the decision to utilize the foundation was “deferred to the next administration,” that of George W. Bush.

Bush’s Space Commission, chaired by Donald Rumsfeld, issued a report early in 2001 concluding that preemption in defense of US space systems was necessary. The decision to withdraw from the ABM Treaty was made shortly after the terrorist attacks on September 11, 2001. The American preoccupation with power, military strength, and preemptive action that followed these attacks led to a dramatic increase in acts of American exceptionalism. This is evidenced by the considerable increase in funding for space-based weapons systems that contradict the principles of the Outer Space Treaty. Based on this recent spending increase, it is not surprising that the United States refused to discuss space security at the 2002 U.N. Conference on Disarmament. Eric Javits, the U.S. ambassador to the conference, explained that, “there simply is no problem in outer space for arms control to solve.” The United States under Bush, also voted against two U.N. resolutions: the already-established resolution on the Prevention of an Arms Race in Outer Space and a new resolution put forth by Russia that would create increased transparency in regards to states’ space activities. The administration’s aggressive approach is most evident, however, in the U.S. National Space policy of 2006, which was released late on a Friday afternoon of a holiday weekend, an approach often used to suppress negative reactions. Although this new policy begins with a reference to the United States’ commitment to the use of space for “peaceful purposes,” it goes on to claim that defense and intelligence activities “in pursuit of national interests” are in harmony with this principle. Yet the fact that each state determines its own national interests, combined with broad wording such as this, seems to convey an overreaching declaration of authority. The policy goes on to proclaim the United States’ right to deny other countries from developing the means to compete in space. A separate publication from the Office of the Joint Chiefs of Staff asserts that the United States
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States must be able to protect its space assets and deny the use of space assets by its adversaries. The ambiguity of this statement leaves open the possibility that any space activity by any state may be deemed by the president of the United States as a threat to American interests. As a whole, the language of the Bush administration’s National Space Policy is vague at best. This is quite troubling as vagueness and matters of the law are not particularly compatible.

No substantive policy changes were made to the 2010 National Space Policy by the Obama administration. There was, however, a seemingly deliberate shift made towards a “less bellicose” tone by emphasizing the importance of international co-operation. This is an important first step towards repairing America’s status as a responsible leader in outer space. However, despite this shift in rhetoric, some, including Ben Basely-Walker of the Secure World Foundation, are convinced that an “overarching space arms control accord” is unlikely for the foreseeable future. Given this lack of actual legal reform, it is likely that the Obama administration’s space policy will, in effect, result in a continuation of the status quo.

RAMIFICATIONS OF AMERICAN EXEMPTIONALISM

As we learned during the first decade of space exploration, unclear laws, no matter how peaceable, can be manipulated in order to further aggressive agendas. Eisenhower capitalized on this in his attempts to define the U.S.S.R.’s territorial airspace and the “freedom of space” principle. Many years later, Presidents Bill Clinton and George W. Bush also tested the boundaries of international law with their weakening of and withdrawal from the ABM Treaty. Given America’s state of heightened tension following the September 11 terrorist attacks, eventual withdrawal from the Outer Space Treaty on the grounds of national security and protection of American assets seems likely. This would likely be quickened by a perceived act of aggression towards the United States by any of the growing number of space-faring countries.

Withdrawal from the treaty would not be difficult. The Vienna Convention on the Law of Treaties details the circumstances under which treaties are applicable and declares that the relevant conditions under which each treaty is ratified are key to the consent of states to be compelled by that particular treaty. If these conditions drastically change, the states’ obligations to adhere to the treaty may also change. To this end, there were no weapons in outer space when the Outer Space Treaty was put into effect in 1967. The simple fact that space weapons were not in use at the time but have since been developed could be viewed as a basis on which to defect from the treaty. Use of this convenient escape clause is not even necessary given the fact that, in the case of conflicting laws, some law prevail over others. The inherent right to self-defense, for example, is a
peremptory norm that simply cannot be violated under international law and therefore prevails over any treaty.\textsuperscript{68} The Bush administration's creative use of preemptive self-defense put forth by Rumsfeld's Space Commission, an approach that relies on “strategic unilateralism and selective multilateralism”\textsuperscript{69} while avoiding conformity to any international treaties that may be deemed too constrictive, is characteristic of American exemptionalism.\textsuperscript{70} Eisenhower’s attempts to establish precedence by flying satellites over the U.S.S.R. while denying the same precedence to the Soviets during the IGY are earlier examples of American self-exemption. These dangerous double standards only serve to weaken the system of international laws created in large part by the United States in order to safeguard American interests.\textsuperscript{71}

By isolating itself from and ignoring the system of international laws that it helped to create American credibility is diminished and the ability to guard American interests is hampered. Only by heeding the warning of Eisenhower’s farewell address will the military-industrial complex be prevented from “endanger[ing] our liberties or democratic processes.”\textsuperscript{72} According to one current theory, customary international law is less restrictive to state actions than it is derived from the status quo.\textsuperscript{73} This implies that the future of outer space lies in the adherence by all space-faring nations to the peaceful principles established by the Common Heritage of Mankind principle. In order for this doctrine to become an accepted part of international law, it needs to be reexamined and placed within a more concise legal framework.\textsuperscript{74} In addition, a strengthened, authoritative third-party mechanism responsible for assuring compliance, rather than the current self-enforcement model, would be required.\textsuperscript{75} Only through the stated revisions to the language of the Outer Space Treaty of 1967 and persistent, cooperative presidential leadership will the United States be able to avoid the disaster that would certainly result were it to either continue introducing weapons into outer space or withdraw from the treaty altogether.
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5 Ibid, 191-192


8 Ibid, 163

9 Ibid, 162-165

10 Ibid, 167

11 Ibid, 171-172

12 Ibid, 173

13 Ibid, 173


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16 Ibid, 127
17 Ibid, 126-128
18 Day “Cover Stories and Hidden Agendas,” 184
19 Galloway, “Organizing the United States Government for Outer Space,” 309
20 Galloway, “Organizing the United States Government for Outer Space,” 315
21 Ibid, 315
22 Day “Cover Stories and Hidden Agendas,” 186
23 Galloway, “Organizing the United States Government for Outer Space,” 315
24 Callahan and Greenstein, “The Reluctant Racer,” 37
27 Ibid, 319
28 Ibid, 321
29 Day, “Cover Stories and Hidden Agendas,” 190
30 Ibid, 191
31 John C. McAdams, “Eisenhower’s Farewell Address to the Nation,” http://mcadams.posc.mu.edu/ike.htm
33 Michael R. Beschloss, “Kennedy and the Decision to Go to the Moon,” Spaceflight and the Myth of Presidential Leadership, ed. Roger D. Launius and Howard E. McCurdy (Urbana: Board of Trustees of the University of Illinois, 1997), 56
34 Ibid, 56
36 Ibid, 57
37 Ibid, 57
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38 Launius, “Kennedy’s Space Policy Reconsidered,” 21

39 Ibid, 21

40 Ibid, 22-23

41 Ibid, 23


44 Ibid, 69


51 Hyten, “A Sea of Peace or a Theater of War?” 81


53 Hyten, “A Sea of Peace or a Theater of War?” 79

54 Moltz, “The Past, Present, and Future of Space Security,” 190

55 Ibid, 191

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Present, and Future of Space Security,” 191

57 Ibid, 191


59 Ibid, 33-34

60 Ibid, 34

61 Ibid, 33-34

62 Ibid, 33-34


64 Ibid.


66 Ibid, 876

67 Ibid, 878

68 Ibid, 878


72 McAdams, “Eisenhower’s Farewell Address to the Nation”


74 Joyner, “Legal Implications of the Concept of the Common Heritage of Mankind,” 198

75 Goldsmith and Posner. *The Limits of International Law*. 83-84