

Nationalism, Ideology, and the Cold War Space Race

Abstract:

One of the most enduring legacies of the Cold War period was the rivalry between the Soviet Union and the United States. This is especially true if one considers the 'Space Race,' of the mid 1950s-1960s, where each country tried to out-do the other in all manner of space technology. This paper, while acknowledging the importance held by military and scientific goals, argues that it was matters of nationalism and prestige that provided the biggest motivation for the creation of new space technologies during this time.

Two of the most enduring legacies of the early decades of the Cold War recognized today are the rivalries of the United States of America and Soviet Union, as well as the eventual space race between them, in which each side tried to outdo the other in spaceflight achievements. Many new technologies and feats saw their births in this early Cold War period: satellites and the refining of rockets to launch them, as well as the challenges that came with both sending a man into orbit and to the moon. However, the question as to why and how these achievements came about is perhaps more complex; was spaceflight technology driven by a scientific desire for more knowledge, military capabilities, or as a matter of national prestige? This paper aims to make a case for the latter. In a time where both the United States and the Soviet Union were pushing their own agendas onto the world -the United States trying to shape western Europe to be sympathetic to American freedom and capitalism, and the Soviets creating their sphere of influence in the East- matters of spaceflight and technology became mostly about trying to outdo their competitor.¹ In this paper I will argue that nationalism and ideology, along with the propaganda that came from them, were the primary motivating factors in the development of spaceflight technology during the early few decades of the Cold War between the United States and the Soviet Union. To this end, I will look at numerous space achievements: Sputnik, Yuri Gagarin's flight in space, and the Apollo 11 moon mission, as well as how these Cold War rivalries affected both the motives for developing technology and the teams of scientists, engineers, and designers who made them.

¹ Ronald E. Powaski, *The Cold War: The United States and the Soviet Union, 1917-1991* (Oxford: Oxford University Press, 1998), 95-96.

Before diving too far into this paper, it is first crucial to explain these national and ideological factors in the context of both the United States and the Soviet Union during this time of space exploration. By the beginning of the Cold War, the United States had assumed their position as leaders of the free, Western world, believing in the superiority of their Liberal institutions and their growing influence over Europe.² As Walter A. McDougall notes, the United States believed that the twentieth century belonged to them; a sort of “American Century” of greatness.³ United States President John F. Kennedy would repeat some of these same notions in his “Space Challenge” speech on September 13th 1962. In a very nationally uplifting speech, Kennedy emphasized a proud American past of “firsts” and accomplishments: Americans had been among the first nations to achieve an industrial revolution, modern inventions, and nuclear power, with Kennedy adding that they meant to lead the space age too.⁴ Praising the action and forward thinking nature of his country, Kennedy declared that the United States had not been built by a citizenship who feared the future, and that space would be “conquered” in this same way.⁵ Almost seeming to bring an element of fear in his speech, Kennedy remarked that the United States had the power to turn space into opportunities for great public knowledge...but only if they got there ahead of the Soviets.⁶ Viewed at in this context of fear, Kennedy’s speech can be seen as both a rallying call to action, as well as a definition of many of the American views towards their places in the burgeoning age of spaceflight.

² Walter A McDougall, ...*The Heavens and the Earth: A Political History of the Space Age* (New York: Basic Books, 1985), 7.

³ McDougall, ...*The Heavens and the Earth*, 7.

⁴ John F. Kennedy, “The Space Challenge, 13 September 1962,” Fordham University Internet Sourcebook, accessed November 30th 2018, <https://sourcebooks.fordham.edu/mod/1962JFK-space.asp>.

⁵ Kennedy, “The Space Challenge.”

⁶ Kennedy, “The Space Challenge.”

On the other hand, the Soviet Union had many of the same goals. In a public talk given by Soviet rocket designer Sergei Korolev in September 1955, Korolev outlined Soviet desires for “firsts,” much like Kennedy.⁷ Korolev’s goals included having the Soviets be the first to have their rockets fly higher, the first to successfully send a person into space, and the first to make an artificial satellite.⁸ He also claimed that the Soviets should be the first to travel in space.⁹ Additionally, after World War Two, there was also a mass effort to revive the works of past Russian intellectuals, forging a link between science and national identity.¹⁰ To this end, Soviet ideology can also be seen in Asif A. Siddiqi’s argument for technological utopianism, in which technology was equated with progress and the survival of one’s nation.¹¹ Communist ideology, therefore, was one desiring of technological advancement and supremacy over one’s rivals.¹²

As is the widely known narrative of the Cold War, the Soviet Union and the United States were locked into an intense rivalry, and in many cases it had to do with these ideological differences, combined with their own national pride. In his 1957 “Dynamic Peace” speech, United States Secretary of State John Foster Dulles had nothing positive to say in regard to the Soviets. Russia and its communist system held people in a state of misery and slavery, Dulles declared, while further emphasizing communism as “oppressive,” “reactionary,” and “unimaginative.”¹³ Furthermore, Dulles argued that the United States was unhappy with their

⁷ Asif A. Siddiqi, *The Red Rocket’s Glare: Spaceflight and the Soviet Imagination, 1857-1957* (Cambridge: Cambridge University Press, 2010), 290.

⁸ Siddiqi, *The Red Rocket’s Glare*, 290.

⁹ Siddiqi, *The Red Rocket’s Glare*, 290.

¹⁰ Siddiqi, *The Red Rocket’s Glare*, 295.

¹¹ Asif A. Siddiqi, “Competing Technologies, National(ist) Narratives, and Universal Claims Toward a Global History of Space Exploration,” *Technology and Culture* 51, no. 2 (2010): 431.

¹² McDougall, ...*The Heavens and the Earth*, 27.

¹³ John Foster Dulles, “Dynamic Peace, 1957,” Fordham University Internet Sourcebook, accessed November 30th 2018, <https://sourcebooks.fordham.edu/mod/1957Dulles-peace1.asp>.

need to stockpile weapons; they would not be “forced” to if they were not threatened by the “devious designs” of “international communism.”¹⁴ While President Kennedy’s speech a few years later was more of a rallying cry and a reaffirmation to the people of what made the United States a international power and a future leader in spaceflight technology, here Dulles seems to use his speech to decry everything he thought was wrong with the Soviet Union. According to Dulles, no one wanted to live under the harsh fist of communism, and he finished his speech by declaring that it was inevitable that communism would fail in face the faces of freedom and national unity.¹⁵ Put quite simply, it is clear that Dulles believed that the United States was a superior nation of freedom and peace, while communism was little more than a blight to be exterminated.

Conversely, it is of little surprise that the Soviet Union also believed themselves superior in the face of their American adversaries. When their projects succeeded, the accomplishments became just as much a matter of national pride as they were useful for showing off to the United States. For example, at the gala held in April 1961 in celebration of Yuri Gagarin, the first man launched into orbit, Soviet President Nikita Khrushchev mocked the Western powers that long believed Russians to be barbarians, savage “barefooted” people that were incapable of becoming an influential world power.¹⁶ The achievement was also touted as showing the downfalls of the capitalist system, as well as the shining virtues of communism; through their superiority, the Soviets had been the first to launch a man into orbit.¹⁷ As James Andrews

¹⁴ Dulles, “Dynamic Peace, 1957.”

¹⁵ Dulles, “Dynamic Peace, 1957.”

¹⁶ James T. Andrews, *Red Cosmos: K.E. Tsiolkovskii, Grandfather of Soviet Rocketry* (College Station: Texas A&M University Press, 2009), 1.

¹⁷ Andrews, *Red Cosmos*, 1.

argues, Khrushchev's boasts show the power of propaganda; in reality, Soviet dominance in space had come in part from studying texts around the world as well as from home, and Soviet scientists and engineers were able to synthesize it in a way that allowed for successful spaceflight.¹⁸ As Andrews' argument shows, propaganda became a useful tool in propagating a sense of national prestige, whether the merit was actually well deserved or otherwise.

While these factors of nationalism, ideology, and their resulting propaganda are by no means universal to all spaceflight development during this time, it is by looking through these lenses that we can see some of the primary motivating causes were in this turbulent time. By looking at these dichotomies between the two rivals, it is clear that neither the Soviet Union or the United States would allow the other to have mastery over spaceflight. In this context, I will argue how this notion of competition translated to this progress in spaceflight technology during the Cold War.

One of the first radical advancements in spaceflight technology came in the form of satellites, with Soviet satellite Sputnik being the first artificial object into orbit on October 4th, 1957.¹⁹ The origins of Sputnik came from, in part, the establishment of the International Geophysical Year (July 1st 1957-December 31st 1959), a science based event that had to do with the launching of satellites to make discoveries about the Earth.²⁰ However, what had been intended to be an international science project, so to say, quickly shifted into a race for international prestige.

¹⁸ Andrews, *Red Cosmos*, 1.

¹⁹ Siddiqi, *The Red Rocket's Glare*, 356

²⁰ Dino A. Brugioni, *eyes in the sky: Eisenhower, the CIA, and Cold War Aerial Espionage*, ed. Doris G. Taylor (Annapolis, Maryland: Naval Institute Press, 2010), 135.

In 1955, United States President Eisenhower approved the launching of small satellites for the IGY.²¹ He did this in part because he recognized that being able to build satellites would help to define the United States' place in the world, and because the CIA had reported that the Soviets were seriously considering launching a satellite themselves.²² A debate emerged in the branches of the military over which rocket project should be used to launch the satellite: the Army's Redstone, developed by German engineer Werner von Braun, the Navy's Viking, or the Air Force's Atlas.²³ Despite disagreement, the project went with the Navy, and their Viking rocket was renamed Vanguard.²⁴

The Soviet Union was very much aware of United States intentions for the IGY, which affected how Sergei Korolev pitched his own satellite project to the government. His pitch can be seen as a reflection of this Cold War surge of nationalism, in that he moved the idea of international prestige to the center of his argument, something that Khrushchev could not really pass up.²⁵

While Sputnik many have had its origins in a science-based environment, the making of the satellites quickly became an affair comprised of flaunting one's successes and speeding up work for the coveted milestone of being the first. For example, the satellite was not the only important factor in this quest; the rockets used to launch them were just as important. When these launches succeeded, such as in the case of the Soviet Union, the results were quickly

²¹ Brugioni, *eyes in the sky*, 135.

²² Brugioni, *eyes in the sky*, xi, 135.

²³ Brugioni, *eyes in the sky*, 135.

²⁴ Brugioni, *eyes in the sky*, 135.

²⁵ Siddiqi, *Red Rocket's Glare*, 324-325.

publicized for the world to take note of, especially the United States.²⁶ Furthermore, the desire to be first was so strong that on hearing rumours of the planned United States satellite launch date, Korolev moved his own launch date up from mid-October to October 4th 1957.²⁷

When the Soviet Union did succeed in launching Sputnik, the United States' reaction was one of shock, many people of which considered it damaging to their national pride.²⁸ Having long considered the Soviet Union to be a backwards nation with little technical prowess, suddenly the United States found themselves in a position where they could not declare themselves on the cutting edge of technology.²⁹ This sense of shock would only be increasingly amplified when the United States' attempt to launch their satellite on December 6th 1957 ended in failure.³⁰ Furthermore, a sense of resentment within the Army, Navy, and Air Force can be implied, in that some people stated that if the United States had gone with the Army's Redstone rocket over the Navy's, they would have been first.³¹

For their part, the Soviets celebrated the achievement with public planetarium lectures and propaganda-heavy songs sung by children about Sputnik.³² Khrushchev, so enthused was he by the success of Sputnik, immediately asked Korolev if he could launch another the following month; Korolev did just that with his launch of Sputnik 2, accompanied by the dog Laika, to much Soviet fanfare.³³ Perhaps most importantly, Khrushchev used the launch of

²⁶ Siddiqi, *The Red Rocket's Glare*, 343-345.

²⁷ Siddiqi, *The Red Rocket's Glare*, 349.

²⁸ Powaski, *The Cold War*, 122-123.

²⁹ Powaski, *The Cold War*, 123.

³⁰ Powaski, *The Cold War*, 122-123.

³¹ Brugioni, *eyes in the sky*, 135-6.

³² Andrews, *Red Cosmos*, 95.

³³ Siddiqi, *The Red Rocket's Glare*, 360.

Sputnik to declare the success of communism over capitalism, drawing this achievement back into the fold of ideology and national prestige.³⁴ This was something that also resonated with the United States, as they were worried the perceived power of freedom and Liberalism would fail as a worldwide influence if they could not beat the Soviets.³⁵ Regardless, Sputnik was just the beginning of the race for national prestige.

The second of these major events comes again from the Soviet Union with the April 12th, 1961 launch of Yuri Gagarin into orbit, making him the first man in space.³⁶ Dubbed by McDougall as the “second Sputnik,” due to its widespread impact, the launch was again considered proof of superior Soviet technological strength.³⁷ The launch also had several ideological implications. First, as McDougall notes, the capsule that carried Gagarin was named “Vostok,” meaning “upward flow,” and was possibly suggested to illustrate the rising nature of communism and humanity.³⁸ Secondly, the success of the launch and keeping a man alive in space was touted as another example of the “scientific, social, economic, and moral superiority of the Socialist system.”³⁹ Lastly, likely as a piece of Soviet propaganda, Gagarin himself said that he had greeted the people of Africa as he flew over them, saying that he saw the poor people “struggling to break the chains of imperialism.”⁴⁰ The message in that statement seems to be clear: while the Soviets soared overhead, those in a Liberal or Western system remained stuck, whether it was the West themselves or their overseas empires.

³⁴ Siddiqi, *The Red Rocket's Glare*, 357.

³⁵ McDougall, ...*The Heavens and the Earth*, 7.

³⁶ McDougall, ...*The Heavens and the Earth*, 243.

³⁷ McDougall, ...*The Heavens and the Earth*, 244.

³⁸ McDougall, ...*The Heavens and the Earth*, 244-245.

³⁹ McDougall, ...*The Heavens and the Earth*, 244.

⁴⁰ McDougall, ...*The Heavens and the Earth*, 246.

In any case, the Soviet Union celebrated with radio announcements and patriotic songs, leaving the United States to once again wonder where they had gone wrong.⁴¹ On the one hand, the launch played out much like Sputnik had; the Soviets scheduled their launch before the United States, who were still stuck in testing phases in late March.⁴² Due to the United States and NASA's decision to make an additional test flight to ensure the safety of their astronaut, Alan Shephard, Korolev was able to sneak the launch of Gagarin, flying in a modified ICMB, before NASA's launch.⁴³ While this once again speaks to the confidence of the Soviets and their technology capacity over the United States, many of the questions that President Kennedy would later ask of his scientists and engineers would concern national prestige.⁴⁴ Kennedy wanted to know if there was any place in which Americans had an edge over the Soviets; if Americans could get to the moon before the Soviets -whether it was orbiting around it or making a landing- and generally what the state of NASA was in regards to how quickly they were moving.⁴⁵ Again, United States newspapers broadcasted these fears and disappointments to the masses; Gagarin's flight had cost the nation in international prestige, leaving many convinced that the future of spaceflight belonged to the Russians.⁴⁶

Lastly, we'll look at an American achievement here: the first walk on the moon by American astronauts Neil Armstrong and Edwin 'Buzz' Aldrin (with a third, Michael Collins

⁴¹ United Press International, "187-MILE HEIGHT: Yuri Gagarin, a Major Makes the Flight in 5-Ton Vehicle," *New York Times*, April 12th 1961. <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/115341492/28DFD00B5FCF4046PQ/2?accountid=14474>.

⁴² McDougall, ...*The Heavens and the Earth*, 243.

⁴³ McDougall, ...*The Heavens and the Earth*, 243.

⁴⁴ McDougall, ...*The Heavens and the Earth*, 243.

⁴⁵ McDougall, ...*The Heavens and the Earth*, 318.

⁴⁶ McDougall, ...*The Heavens and the Earth*, 317.

remaining on board the craft) in July 1969 under the Apollo 11 project.⁴⁷ Plans had been in motion for this project for nearly a decade; newspapers reported as early as May 1961, shortly after Gagarin's flight, that NASA could have men in space by 1970 at the latest.⁴⁸ They did not know in the early 1960s if they could beat the Soviets for sure, but much like their earlier endeavours, NASA and the United States decided it was worth a try, stating that it would be worth it to beat the Soviets to the moon.⁴⁹ The project, dubbed Apollo 11, had many supporters; people believed that if they could pull it off, it would show America's hard work, "can-do" attitude, and the superiority of their own technology.⁵⁰

To achieve this historic first, President Kennedy and his advisors realized that it would almost demand a restructuring of American society: resources in education would have to be ramped up, as well as a shift in spending and economics.⁵¹ A project this large would not be cheap and required a huge commitment, drawing on different branches of the nation.⁵²

As McDougall argues, Kennedy was thinking about prestige, not cost.⁵³ Being fed reports from people in his circle, Kennedy was inundated with opinions stating that the Soviets led the United States in prestige, the United States was not seen as an effective world leader and because of that other countries would likely start aligning themselves with the Soviets, and the

⁴⁷ Matthew D. Tribbe, *No requiem for the space age: the Apollo moon landings and American culture* (Oxfordshire, England: Oxford University Press, 2014), xi.

⁴⁸ John G. Norris, "U.S. to Race Russia to Moon: Will Accelerate Space Program Run by Civilians," *The Washington Post*, May 20, 1961, <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/141306785/44D5640C1BEB4A5APQ/7?accountid=14474>.

⁴⁹ Norris, "U.S. to Race Russia to Moon."

⁵⁰ Tribbe, *No requiem for the space age*, 4.

⁵¹ McDougall, ...*The Heavens and the Earth*, 318-319.

⁵² McDougall, ...*The Heavens and the Earth*, 318-319.

⁵³ McDougall, ...*The Heavens and the Earth*, 319.

assertion that the United States had the technology and the manpower to get to the moon, but they had not marshalled their resources successfully as of yet.⁵⁴ Future President Lyndon B. Johnson even declared that failing to master space meant failing in the Cold War.⁵⁵ “In the eyes of the world, first in space means first, period; second in space is second in everything,” Johnson said, leaving no doubt as to what the stakes were in the race to the moon.⁵⁶ Lastly, that the space landing craft to be used was eventually named the “Eagle,” after the country’s national bird, highlights the implications that this race to the moon entailed.⁵⁷

Upon the successful flight and landing of Apollo and the astronauts in 1969, the immediate outpour of support was huge, seemingly cementing Apollo’s national legacy. Right away, one United States senator declared that the United States was the master of the universe, and that there was nowhere in space they could not go.⁵⁸ While we know today that this is not necessarily true for the time being, the success of Apollo did not stop plans from being made to send unmanned space flights around our solar system; there were even tentative plans to establish a permanent moon base for exploration.⁵⁹ On Earth, the flight inspired everything from songs to plans for moon monuments, reservations for commercial

⁵⁴ McDougall, ...*The Heavens and the Earth*, 319-320.

⁵⁵ McDougall, ...*The Heavens and the Earth*, 320.

⁵⁶ McDougall, ...*The Heavens and the Earth*, 320.

⁵⁷ John Noble Wilford, “Astronauts Confident of Moon Landing: Apollo Crew Appears Calm 11 Days Before the Mission,” *The New York Times*, July 6th, 1969, <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/118528039/fulltextPDF/DF4B8FD35D7544BBPQ/19?accountid=14474>.

⁵⁸ Tribbe, *No requiem for the space age*, 3.

⁵⁹ Jonathon Spivak, “After Apollo 11: Moon Landing Success Is Sure to Spur Planning For New Space Feats,” *The Wall Street Journal*, July 22nd 1969, <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/133376390/fulltextPDF/F7912A5952E8472DPQ/10?accountid=14474>.

moon flights, to toy models.⁶⁰ Thomas R. Linden of the *Los Angeles Times* even reported that three babies in Los Angeles County had been named after the astronauts-“Neil Edwin,” “Edwin Neil,” and “Apolla.”⁶¹ Treated like national heroes, the three astronauts were invited to a presidential dinner in May, while there were proposals to name roadways and other buildings after them.⁶² Linden describes this period as people having ‘Moon Fever,’ and this description really does not seem far off from the truth, especially as people were calling Apollo 11 ‘America’s Greatest Space Triumph.’⁶³

In relation to these spaceflight achievements, with the focus on national prestige and the resulting rivalry this entailed, these technological accomplishments were taking on more of a national importance rather than the individual importance of a scientist or particular scientific field. A good, if perhaps slightly dated, example to explain what I mean can be seen by looking at individuals like the Englishman Isaac Newton (1642-1727). Often considered one of or *the* greatest scientist (natural philosopher) who ever lived, Newton was a pioneer in mathematics, physics, and optics, wrote numerous books (his 1689 *Principia* being especially important), was considered far more influential than many of his peers, including Robert Boyle and Robert Hooke, and had a dedicated following of admirers and disciples even long after he died.⁶⁴ The difference here is that, while Newton’s work was immeasurably important to many scientific

⁶⁰ Thomas R. Linden, “Successful Flight of Apollo 11 Spreads ‘Moon Fever’ on Earth: Monuments, Songs, Drinks, and Even Babies Get Into Act to Commemorate Astronauts’ Landing on Lunar Surface,” *Los Angeles Times*, August 24 1969, <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/156237403/fulltextPDF/F7912A5952E8472DPQ/8?accountid=14474>.

⁶¹ Linden, “Successful Flight of Apollo 11 Spreads ‘Moon Fever’ on Earth.”

⁶² Linden, “Successful Flight of Apollo 11 Spreads ‘Moon Fever’ on Earth.”

⁶³ Linden, “Successful Flight of Apollo 11 Spreads ‘Moon Fever’ on Earth.”

⁶⁴ Betty Jo Teeter Dobbs and Margaret C. Jacob, *Newton and the Culture of Newtonianism* (Amherst, New York: Humanity Books, 1995), 1-2.

fields, Newton was not, to my knowledge, consumed by the English government; they did not take his achievements and declare them to be great English national achievements, all the while losing who Newton was as a person. Newton retained his importance to science as an individual, and we recognize this fact to this day.

This distinction, however, starts to blur when one looks at how nationalism affected the Cold War. For example, if we look back to Khrushchev at the celebratory gala in honor of Yuri Gagarin's orbits in space, Khrushchev celebrates it as a national achievement, and does not make particular mentions of the scientists, engineers, or workers who actually contributed to the project.⁶⁵ What does Khrushchev mean when he lauded the launch as a national triumph? Was it Khrushchev who spent long days and nights with Soviet engineers, puzzling over rocket designs and trying to solve any arising problems? Not likely. If it was a truly national achievement, then where was the revolving door of Soviet citizens making their contributions, whether it was building the rocket, fueling it, or overseeing operations and countdowns in the control booth? Obviously, the percentage of Soviets who actually worked on the rocket and Gagarin's launch was relatively small in comparison to the Soviet Union's population, yet Khrushchev still boasted of it as a national, Soviet Union-wide accomplishment.

The Soviet Union was far from alone in this. John Wilford, a journalist for the *Chicago Tribune*, wrote on the ten-year anniversary of Sputnik's launch in 1967 about its legacy for both the United States and Soviet Union.⁶⁶ Wilford listed many of the Soviet's achievements,

⁶⁵ Andrews, *Red Cosmos*, 1.

⁶⁶ John Noble Wilford, "Sputnik Blasts Russia Ahead in the Space Race," *Chicago Tribune*, October 4th 1967, <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/169940747/fulltextPDF/152C5F9A4D841D6PQ/8?accountid=14474>.

including being the first to launch an animal into space, the first to take pictures of the hidden side of the moon, and being the first and only nation to launch a woman into space, on top of having the first person into space period.⁶⁷ However, Wilford confidently declared that nothing the Soviets had done was good enough to beat the scientific achievements recently made by the United States.⁶⁸ Again, this is an example of putting the nation forward as a whole; scientists and engineers undoubtedly had the largest hand in making these discoveries, yet they were being folded into this national conscious. Interestingly enough, given that this article came from an independent newspaper, it was not government propaganda or rallying. Regular civilians were projecting this same attitude of national pride to their peers, showing just how diffused was this motivating factor.

There were exceptions to this, of course: a handful of scientists were given individual recognition. The United States had Werner von Braun, a German rocket engineer; at the height of his public career in the 1950s, he was appearing in *Colliers* magazine advocating for the benefits of space travel to Western and American audiences.⁶⁹ For the Soviet Union, one of their most prolific figures was Sergei Korolev, who was first introduced to this paper giving his speech about making the Soviets first into space.⁷⁰ However, despite not being actively patriotic or militaristic -as McDougall notes, the primary motivating factor for each was their dream of spaceflight- they were still incorporated into these national achievements.⁷¹ This can be seen by merely looking at the examples I just mentioned: von Braun was given a public platform in a

⁶⁷ Wilford, "Sputnik Blasts Russia Ahead in the Space Race."

⁶⁸ Wilford, "Sputnik Blasts Russia Ahead in the Space Race."

⁶⁹ Michael J. Neufeld, *Von Braun: Dreamer of Space, Engineer of War* (New York: Vintage Books, 2007), 6.

⁷⁰ Siddiqi, *The Red Rocket's Glare*, 290.

⁷¹ McDougall, ...*The Heavens and the Earth*, 20.

magazine to show the futures and benefits of spaceflight, while Korolev gave public talks declaring that the Russian people should be the pioneers of space. They may not have had the same goals as their governments, but these men were still being used by them in a way that suited national purposes.

On the one hand, science and engineering has become increasingly more complicated than it was in Newton's day and there is no doubt that entire teams are needed to design and build rockets, or to make plans to successfully reach the moon. Naming every man and woman involved in these processes would be a task; no one is going to sit in front of their radios or televisions while an excited broadcaster rattles off the thousands of names of every individual who made the Apollo Moon landing possible. On the other hand, however, these teams of engineers and scientists can be seen as being increasingly brought into a collective, national fold. Their achievements, being used in the ongoing Cold War rivalry, suddenly carried much more significance to their countries as a whole, and became not just calls for celebration, but opportunities to show what the country was achieving.

If there is one motivator that has yet to be meaningfully addressed in this paper, it is scientific advancement for the sake of scientific advancement. After all, would not scientific progress and the broadening of knowledge about earth and our solar system be as valuable and noble a goal as any other, worth time and government or military funding? The answer to this question is complicated; while the acquisition of knowledge was certainly a motivating factor, especially for the United States, it also did not receive primary importance, and could, as will be argued, rolled up in the quest for national prestige.

An example of this divide is suggested by merely looking at the allocated funding. In his piece for *The New York Times*, John W. Finney wrote in May 1958 that \$210,000,000 was being granted for space research programs in the United States: \$138,000,000 of which was given to the development of space weapons and defense while projects dedicated to science were given a grant of \$72,000,000, only about a third of the total budget.⁷² Even just by crudely comparing numbers, we can see that national security purposes outweighed the pursuit of scientific knowledge for a time in the United States. Furthermore, in the previously discussed “The Space Challenge” speech, Kennedy also remarked on the budget for space, saying that it had only grown in years past, and, in 1962, was set to reach about 5.4 billion dollars a year.⁷³ Of the associated costs, Kennedy staunchly declared that “we must pay what needs to be paid.”⁷⁴ This seems like awfully strong language if Kennedy’s goal was solely space exploration. Carrying notes of urgency, Kennedy’s words likely had to do with his aforementioned desire to beat the Soviets into space, both to be the first nation decidedly in space, and to keep space out of Soviet hands.⁷⁵

A better way to look at this issue would be to return to Siddiqi’s argument on technological utopianism, in that technological progress is linked to national factors and the thriving of one’s nation.⁷⁶ These notions were present in both the United States and the Soviet Union. The Soviet Union believed in the power of technology to transform the nation, believing

⁷² John W Finney, “U.S. Lags in Space Race 8 Months After Sputnik 1.” *The New York Times*. May 25th, 1958. ProQuest Historical Newspapers. <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/114477460/1DB7416C9197409APQ/1?accountid=14474>

⁷³ Kennedy, “The Space Challenge.”

⁷⁴ Kennedy, “The Space Challenge.”

⁷⁵ Kennedy, “The Space Challenge.”

⁷⁶ Siddiqi, “Competing Technologies,” 427, 430-431.

that if Russia was to prevail in Europe, it needed technological superiority.⁷⁷ For the United States, they also forged a link between national identity and technology, in this case, spaceflight, to prove themselves the better nation.⁷⁸

So, while these and other technologies I did not discuss were products of science and military goals (satellites for the IGY, for example), what was most important, as I have argued, was how these technologies made each country look in relation to each other and the wider world. Looking at nationalism and space flight this way, we can see that there were many factors that made up this idea. Were purely scientific or military aims a motivator for spaceflight technology during the Cold War? Absolutely. However, when they were achieved, they were rolled into a nationalist narrative, ultimately making prestige and progress the most important factors.

These tensions between the Soviets and Americans in spaceflight would not endure with the same intensity later into the Cold War. Doing away with these staunchly nationalistic motives, cooperation started to become the name of the game in the mid-1970s and beyond; the Apollo-Soyuz joint test flight in 1975 being an example of this.⁷⁹ However, this was not the case for the early years of the Cold War. In a time when national prestige and proving the superiority of one's ideology mattered, spaceflight became the battleground this war was waged on. The Soviet's launches of both Sputnik and the first man into orbit were used to highlight Soviet superiority, just as the Apollo mission was celebrated as a national achievement

⁷⁷ McDougall, ...*The Heavens and the Earth*, 21-22.

⁷⁸ Siddiqi, "Competing Technologies," 429.

⁷⁹ Powaski, *The Cold War*, 198.

for the United States; the thinkers behind these as well would also be pulled into the national fold. To end, while other factors like science did play a role, nationalism and ideological factors would be the crucial motivators in this battle for space superiority. As many of these examples show for this early Cold War period, even when an event did not appear to immediately be about national prestige, it was always about national prestige.

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Bibliography

- Andrews, James T. *Red Cosmos: K.E. Tsiolkovskii, Grandfather of Soviet Rocketry*. College Station: Texas A&M University Press, 2009.
- Brugioni, Dino A. *eyes in the sky: Eisenhower, The CIA, and Cold War Aerial Espionage*. Edited by Doris G. Taylor. Annapolis, Maryland: Naval Institute Press, 2010.
- Dobbs, Betty Jo Teeter and Margaret C. Jacob. *Newton and the Culture of Newtonianism*. Amherst, New York: Humanity Books, 1995.
- Dulles, John Foster. "Dynamic Peace, 1957." *Fordham University Internet Sourcebooks*. Accessed November 30th 2018. <https://sourcebooks.fordham.edu/mod/1957Dulles-peace1.asp>
- Finney, John W. "U.S. Lags in Space Race 8 Months After Sputnik 1." *The New York Times*. May 25th, 1958. Accessed December 4th 2018. From ProQuest Historical Newspapers. <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/114477460/1DB7416C9197409APQ/1?accountid=14474>
- Kennedy, John F. "The Space Challenge, September 13th, 1962." *Fordham University Internet Sourcebooks*. Accessed November 30th 2018. <https://sourcebooks.fordham.edu/mod/1962JFK-space.asp>
- Linden, Thomas R. "Successful Flight of Apollo 11 Spreads 'Moon Fever' on Earth: Monuments, Songs, Drinks, and Even Babies Get Into Act to Commemorate Astronauts' Landing on Lunar Surface." *Los Angeles Times*. August 24th 1969. Accessed December 6th 2018. From ProQuest Historical Newspapers. <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/156237403/fulltextPDF/F7912A5952E8472DPQ/8?accountid=14474>
- McDougall, Walter A. *...The Heavens and the Earth: A Political History of the Space Age*. New York: Basic Books, Inc., 1985.
- Neufeld, Michael J. *Von Braun: Dreamer of Space, Engineer of War*. New York: Vintage Books, 2007.
- Norris, John G. "U.S. to Race Russians to the Moon: Will Accelerate Space Program Run By Civilians." *The Washington Post*. May 20th, 1961. From ProQuest Historical Newspapers. <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/141306785/44D5640C1BEB4A5APQ/7?accountid=14474>
- Powaski, Ronald E. *The Cold War: The United States and the Soviet Union, 1917-1991*. Oxford: Oxford University Press, 1998.

- Siddiqi, Asif A. "Competing Technologies, National(ist) Narratives, and Universal Claims Toward a Global History of Space Exploration." In *Technology and Culture* 51, no. 2 (2010): 425-443.
- Siddiqi, Asif A. *The Red Rockets' Glare: Spaceflight and the Soviet Imagination, 1857-1957*. Cambridge: Cambridge University Press, 2010.
- Spivak, Jonathon, "After Apollo 11: Moon Landing Success Is Sure to Spur Planning For New Space Feats." *The Wall Street Journal*. July 22nd 1969. Accessed December 6th 2018. From ProQuest Historical Newspapers. <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/133376390/fulltextPDF/F7912A5952E8472DPQ/10?accountid=14474>
- Tribbe, Matthew D. *No requiem for the space age: the Apollo moon landings and American culture*. Oxfordshire, England: Oxford University Press, 2014. Ebook.
- United Press International. "187-MILE HEIGH: Yuri Gagarin, a Major Makes the Flight in 5-Ton Vehicle." *The New York Times*. April 12th 1961. Accessed December 6, 2018. From ProQuest Historical Newspapers. <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/115341492/28DFD00B5FCF4046PQ/2?accountid=14474>.
- Wilford, John Noble. "Astronauts Confident of Moon Landing: Apollo Crew Appears Calm 11 Days Before the Mission." *The New York Times*. July 6th 1969. Accessed December 6, 2018. From ProQuest Historical Newspapers. <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/118528039/fulltextPDF/DF4B8FD35D7544BBPQ/19?accountid=14474>
- Wilford, John Noble. "Sputnik Blasts Russia Ahead in Space Race." *Chicago Tribune*. October 4th, 1967. Accessed December 4th 2018. From ProQuest Historical Newspapers. <https://search-proquest-com.login.ezproxy.library.ualberta.ca/news/docview/169940747/fulltextPDF/152C5F9A4D841D6PQ/8?accountid=14474>