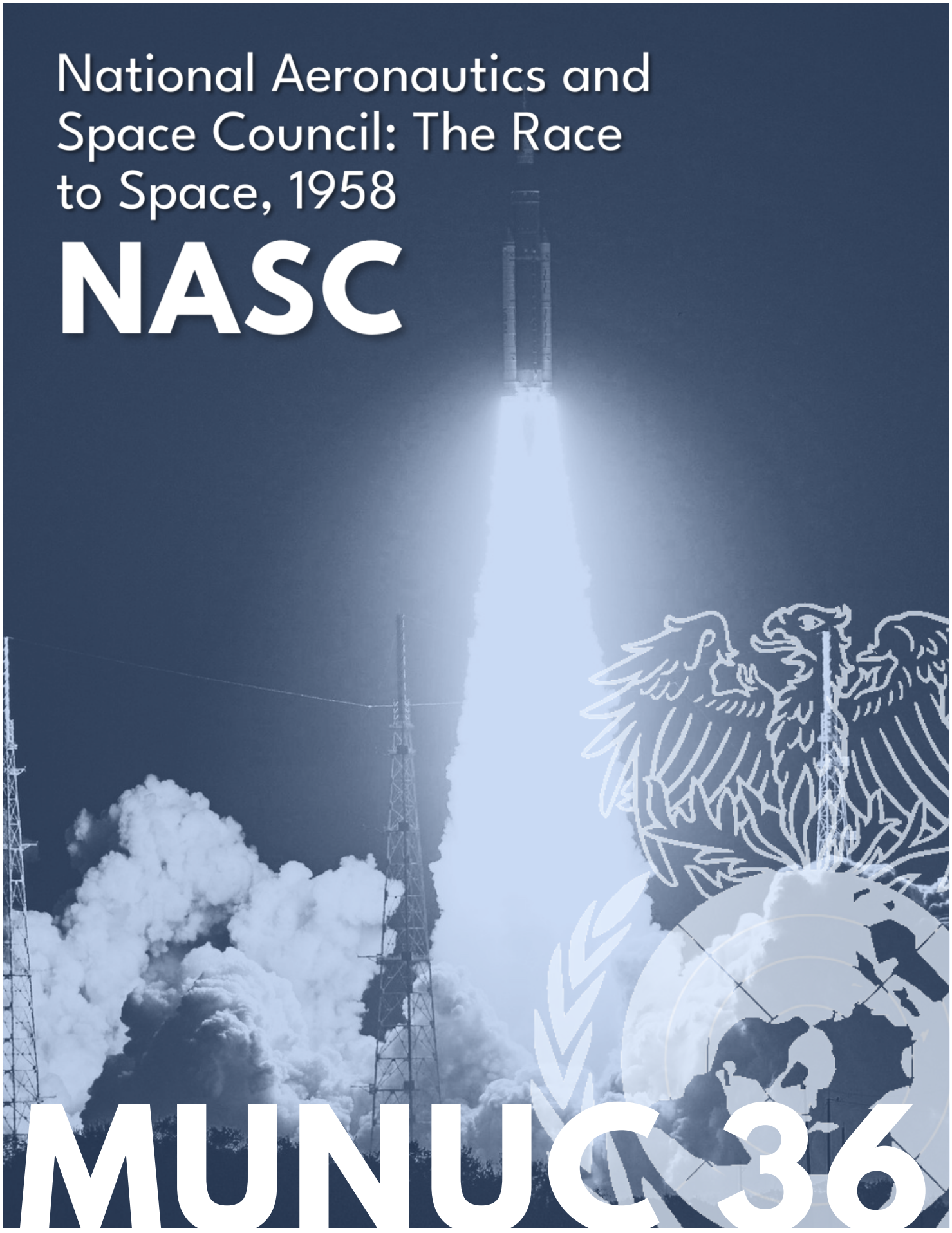
National Aeronautics and Space Council: The Race to Space, 1958

NASC



MUNUC 36

Model United Nations at the University of Chicago

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Chair Letter

Hello Delegates,

A super warm welcome for you all to MUNUC 36! My name is Serena Bernstein and I will be serving as your chair for the National Aeronautics and Space Council (NASC). I am a current third-year from right outside of Boston majoring in Public Policy with a minor in GIS (maps and spatial data).

After participating in MUN conferences all throughout high school, I knew I wanted to stick with MUN, but through running conferences instead of competing. This is my second year involved in MUNUC and I cannot wait to work with you all to try and win the Space Race. I'm sure all the geopolitical craziness and room for never-before-seen technological advancement will create a fun and amazing committee! Myself and the CD have put so much energy into this committee and we could not be more excited that you all are helping us bring it to life.

Beyond MUNUC, I am involved in a handful of other activities at UChicago. I work at the campus Hillel, run a humanitarian mapping organization called the Tobler Society, and help with research on the 77 Chicago neighborhoods. In my spare time, I love to run, hike, and participate in a global scavenger hunt called geocaching (fun fact: there is a geocache on the international space station!).

Before I leave you to read the rest of this hefty background guide, I want to emphasize the importance of respect in this committee. For much of committee, we'll be directly working against the Soviets and, later on, a variety of other countries. It is important that everyone remains respectful to all the other delegates on committee so that everyone can have a great experience. That being said, we look forward to all the plots and schemes we know you can bring to the table!

Lastly, make sure to read the background guide and please reach out via email if you have any questions!

Best,

Serena Bernstein

Chair

srbernstein@uchicago.edu

Crisis Director Letter

Hello Delegates,

A warm welcome to MUNUC 36! My name is Jose Vazquez, and I will be your crisis director for the National Aeronautics and Space Council (NASC). I am a third-year student born in Jalisco, Mexico, but I now live in Salt Lake City, Utah. I am majoring in Political Science with a minor in Germanic Studies and Education and Society — a strange combo, I know. Outside of the usual college life, I am a fan of reading, playing sports, and hanging out with my dog.

I have helped run Model UN conferences for my first two years in college but did so for our collegiate chapter — this will be my first year involved in MUNUC. I am extremely happy and excited to kick-off my introduction to this chapter with the Space Race, an idea that I and the chair find fits the right blend of innovative, approachable, challenging, and fun. We hope to offer a space (literally) that is open and welcoming which will allow you all to challenge yourselves and think dynamically.

This committee is an opportunity for you all to change one of the most important historical moments in the United States, and then become a statesperson with global interests in mind. But, before all that, this is an opportunity for you to make friends, develop personal skills, and have a fun time in an amazing city. To make this latter half possible, please remember to be mindful and respectful of both the subject matter and your fellow delegates.

Without further ado, welcome to NASC, enjoy the background guide, and reach out via email for any and all questions.

Best,

Jose Vazquez

Crisis Director

Josevazquez@uchicago.edu

Sensitivity Statement

The world has changed quite a bit since the era of the Cold War's Space Race, and while we want to see you all engage with this incredibly interesting and complex time in American history, maintaining historical accuracy cannot and will never be an excuse for any form of bigotry, be that racism, sexism, homophobia, etc.

We want to acknowledge some of the oppression and pervasive prejudices that existed during the era of the Space Race that continue to influence society today. The 1950s and 1960s was an era where influential figures, especially those who would have been involved in NASC, were primarily White males. Homosexuality would yet to be legalized for another fifty years, women faced extensive legal and social inequality, and White Protestantism was the norm in the United States. President Kennedy, who will make an appearance in this committee, faced backlash for his Catholic faith, not to mention the discrimination and prejudice that existed for other religious groups. Further, over the course of this committee, the Civil Rights Movement was taking place, finally granting Black Americans only a fraction of the rights they had been fighting for for so long. This is all to say that during the fight for civil rights, and in addressing the aforementioned groups along with many other marginalized peoples, discussions took on what we consider today to be offensive language. In this committee, we expect that delegates will hold debate and each other to the same standards of respect that exist today, in 2024.

Moreover, we want to discuss a topic that will be extensively covered in committee: the Cold War, the Soviet Union, and communism. One of the drivers of the Space Race was the "Red Scare," or anti-communist sentiments. As such, we understand that communism and the USSR may be mentioned and criticized in committee. That being said, we expect all critiques to remain civil and policy-oriented. We are not here to insult people.

Finally, it is worth mentioning that even though we will only be addressing Russian history during the Space Race, there is a good chance other eras of the Cold War will influence the flow of the committee. We recognize that in the Stalinist era, directly predating our committee, there were many actions taken by the Soviet Union that are considered unsavory and potentially genocidal. While we encourage delegates to think critically about different economic models and listen actively to delegates who may hold some communist sympathies, we strongly discourage the acceptance or glorification of the oppression undertaken by the Stalinist USSR.

We know that this is a lot of information to take in, so please know that your dias will be there at all times to answer questions about Cold War era history and our plan to keep the committee productive and respectful. We want this experience to be a lot of fun, so if you have any concerns about another delegate's behavior or a topic we are covering in committee, please don't hesitate to come speak with one of the committee staff. Thank you for taking the time to read through this, and we look forward to seeing you in committee!

Committee Structure And Mechanics

Before Conference

Regardless of your experience with Model UN, we encourage you to visit the MUNUC website to familiarize yourself with the terminology often used during MUN conferences. The website also offers advice on how to improve your note-writing and speeches. This committee will not require you to submit a position paper, but it is important to think about your goals for this conference as it pertains to your standing as a part of a larger coalition and as an individual.

As this a Hybrid committee, you will experience two Model UN formats: the first three sessions being a traditional crisis committee handling the U.S. response to the Space Race, and the last two sessions taking the form of a General Assembly crafting the Outer Space Treaty.

During a crisis committee, you interact with two different elements—the frontroom and the backroom. The frontroom, much like in a General Assembly, allows you to form and pass resolution-like documents called "directives." However, these directives are much shorter and tend to respond directly to the crises presented to you. It is important to note that these directives also shape the crises presented to you later on. The distinguishing element—the backroom—is all about your individual goals with the character you are assigned. Delegates will send notes to the backroom which detail personal goals and how they want to accomplish them. Do not just ask for a resource to be given to you; instead, think about how you can create a story that will allow you to acquire these resources.

The second part of the committee is the General Assembly. GAs are characterized by coalition building—forming blocs to write a resolution and then voting on the finished product. Your treaty should think critically about its role as a foundational international law. This means thinking about how adaptable it is for future technological and scientific advancements, and its management of various international interests.

We want to reiterate that visiting the MUNUC website is highly recommended. You will acquaint yourself with the structures of both crisis and GA, leading to a better transition during the conference. And of course, you can always contact us in case of any questions.

Part One: The U.S. Response To The Space Race

The first part of the committee will be run as a continuous crisis addressing the Space Race. As the various members of the National Aeronautics and Space Council, you will encounter, and address, numerous scientific, political, and logistic obstacles. These obstacles will arise in updates or crisis breaks. Introduced by a rotating

cast of characters, the crisis breaks are responsive to what you do in the frontroom. The backroom will be notified every time a directive is passed, meaning your actions directly affect the crises that this committee will grapple with. Moreover, your individual notes will impact what challenges these characters announce, which is why it is important to prepare comprehensive objectives for yourself and the committee.

Your communication with the backroom through notes is part of what differentiates crisis and GA. Notepads will be made available to you at the beginning of the first session, and we encourage you to begin writing to the backroom soon after you receive your pad. These notes will be collected by one of our Assistant Chairs (ACs) on a rotating basis throughout the continuous crisis. If you are feeling lost or are not sure if your plan is feasible, feel free to ask the ACs for advice out of character. Most of the time, your notes will be from the perspective of your assigned character and directed toward any people that you need to be involved in your plan (secretary, politician, family, friend, etc.). In the beginning, it is important to amass resources and influence so that you can enact whatever plan you have. Ultimately, your goals should be to have your notes included in a crisis break, as this shows you are proactively guiding the committee. Just remember, your goals need to be realistically accomplished within the crisis sessions and should consider the historical context of the committee. The Space Race took place in the middle of the 20th century, so your actions should be limited to the available technology of the time.

Unlike GA, in a continuous crisis you will write directives, which are shorter than resolutions and typically between one to three pages. Directives take specific actions, and those that pass go into effect, so precise and careful wording is key. Keep in mind that the directives you pass in the first part of the committee will affect the International Outer Space Treaty you construct later in committee. Whichever people, groups, or nations are dominating space exploration by the end of the crisis will surely have a leg up going into the GA.

Part Two: Crafting The Outer Space Treaty

The second part of the committee will transition into a General Assembly session solely focused on crafting and passing an Outer Space Treaty. The United States is responsible for negotiating and crafting an Outer Space Treaty that they believe the rest of the United Nations countries will agree with. The assembled delegates of the NASC will lead the charge on this. This portion will take up the last two sessions of the conference. We recognize this is not a lot of time, so it will be imperative that you use the connections and resources built up during the previous crisis sessions to form a comprehensive treaty in time.

The central question for this treaty is how to create a foundational international law that will stand the test of time concerning issues around technological and scientific advancement and diplomacy. After the crisis sessions, you will have experienced the various issues surrounding space, including military activity, travel, business and government interests, and more, all of which should help you understand what a comprehensive treaty should answer. Delegates will receive real-time updates and feedback on their progress on the treaty via the backroom. Assistant Chairs (ACs) representing various countries will make demands or express disagreement with the proposed treaties, possibly outright rejecting them.

It is important to understand that we are not looking for you to replicate the current Outer Space Treaty—although this could be a helpful reference point to understand what a finished product could look like. By this point, you will have created an entire history from the crisis sessions that should be taken into account when crafting the Outer Space Treaty during the GA sessions. No more crisis elements will be available to you during the period of treaty debate, so your only goal should be to draft a treaty. Compromise accordingly—everyone has their own personal motives and philosophies that they would like to see reflected in the Treaty. Ultimately, a final treaty should be compatible with a wide range of differing interests. We are very excited to see what you come up with!

History Of The Committee

The National Aeronautics and Space Council (NASC), alongside the National Aeronautics and Space Administration (NASA), is the first concentrated effort by the United States Government to respond to the Space Race with coordination and energy. The NASC was established under the National Aeronautics and Space Act of 1958.[1] Before the Act of 1958, the United States' attempt at responding to the rapidly-growing space exploration pressure from the Soviet Union was piecemeal. With the launching of Sputnik 1 in October of 1957, the United States had little to show or respond with. The United States had initiated a satellite program earlier in the 1957 Geophysical Year called Project Vanguard.[2] However, the U.S. still could not compete with the ballistic missile technology of the Soviet Union. Rocket technology capable of reaching space was accruing under a military missile program.

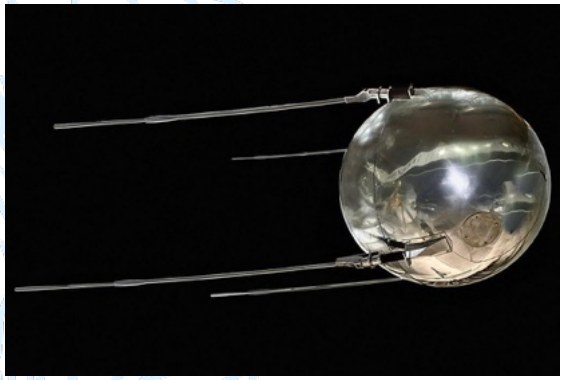


Photo of Sputnik 1.[3]

The military's handling of the missile program could not provide the necessary advances for a sound and long-range space program, as the direction of the program under the military was everywhere but space. Rather, the satellite program was geared towards spying, and the United States prioritized military security for operational ballistic missiles. President Eisenhower created a separate agency within the Pentagon called the Advanced Research Project Agency (ARPA) to handle all space projects.[4] That agency was short-lived due to the quick realization that it would be unable to advance the U.S. Space Program. With a space program in dire

[1] Shreve, Bradley G. "THE US, THE USSR, AND SPACE EXPLORATION, 1957-1963." *International Journal on World Peace* 20, no. 2 (2003): 67–83. http://www.jstor.org/stable/20753399.

[2] Ibid.

[3] Steve Jurvetson, *Sputnik 1*, November 3, 2021, photograph, https://www.flickr.com/photos/jurvetson/51653270064.

[4] "SPACE EXPLORATION."

need, President Eisenhower created a Scientific Advisory Committee.[5]

This committee, headed by Dr. James R. Killian, sought to determine the national objectives and requirements in space. The United States needed a long-term foundation that would advance science and technology. The committee recommended the creation of a civilian agency to solely conduct space exploration. The committee submitted its proposal to Congress, leading to the National Aeronautics and Space Act of 1958.[6]

A notable shift in U.S. space policy appears with the enactment of the Act of 1958: a shift from a militaristic approach to one that prioritizes peaceful scientific and technological advancement. Congress declared, "It is the policy of the United States that activities in space should be devoted to peaceful purposes for the benefit of all mankind."[7] All military operations were left to the Department of Defense and other military services. There was also an unprecedented amount of consolidation, as government agencies, the aerospace industry, and the scientific community were all brought together to form a national space program. Thus, with the introduction of the Act of 1958, delegates in this committee find themselves under an entirely new approach to space from the United States, with the NASC in the middle. The NASC, chaired by the President, was an advisory to the White House on space issues.[8]

The UN body that crafted the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, otherwise known as the Outer Space Treaty, also has its unique history and is monumental to the state of international law.[9] While the United States claimed to be pursuing peaceful aims with the enactment of the National Aeronautics and Space Act of 1958, the ensuing arms race between the United States and the Soviet Union proved the opposite of that. The international community took notice of these developments and worried about nuclear weapons and the potential for outer space to become exploited for military advantage. Many Western nations began to call for the United Nations to ban states from orbiting and stationing weapons of mass destruction in outer space. Around this time, two international committees were formed to encourage international scientific cooperation and the peaceful use of outer space: The Committee on Space Research (COSPAR) and

[5] Ibid.

[6] Emme, Eugene M. "HISTORICAL ORIGINS OF N.A.S.A." *The Air Power Historian* 10, no. 1 (1963): 18–23. http://www.jstor.org/stable/44513209.

[7] Ibid.

[8] Ibid.

[9] Ibid.

The United Nations Committee on the Peaceful Uses of Outer Space (COPUOS).[10]

The international committee had already proven capable of working together to protect the interests of an unowned, remote area with the adoption of the Antarctic Treaty of 1959. The treaty was built on the recognition that it was in the interest of all nations to protect the resources and environment of Antarctica, thus prohibiting the use of military action and promoting the use of land for peaceful purposes. Countries were encouraged to contribute to scientific knowledge through cooperation and coordination in scientific investigation in Antarctica. Thus, Antarctica became a truly neutral and international space. In 1960, President Eisenhower proposed that the principles of this treaty be used for outer space and celestial bodies.[11]

By 1963, the United States, the United Kingdom, and the Soviet Union were advancing towards agreements aimed at limiting the use of nuclear weapons, finally ending in the Partial Test Ban Treaty, which among other things, prohibited nuclear explosions in space.[12] Four years later, after continuous debate and multiple treaties submitted, the UN General Assembly agreed upon the Outer Space Treaty. The Outer Space Treaty is the foundation for all space law that has come since then. The treaty, like the National Aeronautics and Space Act of 1958, places an emphasis on international cooperation and the advancement of science and technology, with solely humanitarian aims.[13]

History Of The Problem

Note on the history of this committee: As you read through this committee's history, you will find that there is historical context that occurs after the starting year of our committee, 1958. Its inclusion is done with the purpose of helping you to think of this era expansively. With a topic that can feel as large as space itself, providing additional historical context should allow you to think of all the ways the Space Race impacted the United States past 1958, possible challenges you might face during committee, or how to act proactively to shape the direction of the committee. While events happen at certain times in history, you should not think of these dates as inhibiting your ideas and goals (e.g just because one space launch happened at one time does not mean it has to happen at that time or at all in this committee).

[10] DeSimone, Bailey. "How the Antarctic Treaty of 1959 Influenced the Outer Space Treaty of 1967." The Library of Congress, January 28, 2022. https://blogs.loc.gov/law/2022/01/how-the-antarctic-treaty-of-1959-influenced-the-outer-space-treaty-of-1967/

[11] Ibid.

[12] Ibid.

[13] Ibid.

Humanity And Astronomy

The study of space, astronomy, is as old as antiquity. For over 4,000 years, humanity has been looking to the sky and wondering what lies beyond.[14] Early on in human history, during the Bronze Age, stone carvings were found depicting constellations. Later, during the Stone Age, monuments such as Stonehenge seemed to track celestial alignments, keeping in mind the Moon and Sun. However, more sophisticated astronomy came about in Mesopotamia. The Babylonians, who believed celestial events to be signs from the gods, kept intricate astronomical diaries, ever appointing bureaucrats to maintain these observations.[15]

Moving forward slightly, the Ancient Greeks persisted in this cosmic exploration, applying geometry to their study. Looking at solstices and eclipses, they estimated Earth's measurements along with the distances between the Earth, Moon, and Sun. Furthermore, they looked at the elliptical movement of the planets. This culminated in the well-known Ptolemaic model which kept the Earth at the center of the universe.[16] During the Middle Ages, many cultures drew from Ptolemeus' work. Ancient Islamic scholars perfected his measurements, European universities added more astronomy to their curricula, and Chinese astronomers made great advances studying meteors and asteroids.[17]

However, it wasn't until the mid-1500s when Nicolaus Copernicus introduced the Heliocentric model, stating that the Sun was placed at the center of the universe.[18] Great astronomers like Galileo used the Heliocentric model in their work a century later, yet their ideas remained heretic (contrary to the beliefs of the politically and intellectually influential Catholic Church). Over time, as Copernicus and Galileo's ideas became widely accepted, other scientists made developments used to this day. Two of the most well-known results of their work, Kepler's Laws of Planetary Motion and Newton's Laws of Gravitation, account for only a small fraction of the influential research of the 17th and 18th centuries.[19]

Depiction of Copernicus' Heliocentric model.[20]

[14] Evans, James, and Michael W. Friedlander. n.d. "Astronomy - Ancient, Celestial, Observations." Britannica. Accessed August 8, 2023. https://www.britannica.com/science/astronomy/History-of-astronomy.

[15] Ibid.

[16] Ibid.

[17] Ibid.

[18] Ibid.

[19] Ibid.

[20] *1661 Cellarius's chart illustrating Copernicus' heliocentric model of the universe*, photograph,

This foundational work eventually gave rise to astrophysics in the 1830s, thus incorporating the chemical and physical properties of the universe into study. These developments gave rise to the discovery of radioactivity in 1890 and, later, Einstein's Theory of General Relativity in 1915. The testing of this new theory, extensive study of cosmic nuclear energy, and gravitation were just some of the research topics being explored in the time leading up to the beginning of the Space Race.[21]

The Transition From World War II To The Cold War

The United States initially joined World War II because of the increasing acknowledgement that isolation sentiment would not suffice with an Axis power (led by Nazi Germany) that was shifting the balance of power and putting American security at risk. This was most profoundly felt as a result of the attack on Pearl Harbor that galvanized the nation into war.[22] As the United States joined the fight, it also became increasingly clear that the war demanded more than just manpower—scientific and technological advances were essential. Medicine advanced with all new techniques in blood transfusions, skin grafts, and trauma treatment; radar was developed, which then led to the microwave; computers, like the Electronic Numerical Integrator and Computer, had computing capabilities that had never been seen before.[23] As the tides of the war began to shift and victory seemed imminent for the Allied powers, the United States recognized that preparations needed to be made for the postwar world—a world in which the currently-allied United States and Soviet Union would become increasingly suspicious of each other, fueled by their ideological differences and the fear that one may threaten the other's national security. The war may have caused the achievement of many important technological and scientific feats, but the one that stands out is the atomic bomb. While the atomic bomb may have been created out of fear that the Nazis were creating one of their own, the United States became the first and only possessor of the bomb at the time.[24] The United States' decision to drop the bomb in both Hiroshima and Nagasaki put their global power on full display. But this same display of power pushed the Soviet Union to prove their own

https://picryl.com/media/1661-cellariuss-chart-illustrating-copernicus-heliocentric-model-of-the-universe-124710.

[21] "Astronomy - Ancient, Celestial, Observations."

[22] The National WWII Museum. n.d. "The Scientific and Technological Advances of World War II." The National WWII Museum. Accessed August 8, 2023. https://www.nationalww2museum.org/war/articles/scientific-and-technological-advances-world-war-ii.

[23] Ibid.

[24] Neufeld, Michael. 2023. "Project Paperclip and American Rocketry after World War II." National Air and Space Museum. https://airandspace.si.edu/stories/editorial/project-paperclip-and-american-rocketry-after-world-war-ii.

global superiority through showcasing technological superiority, thus starting an arms race and, ultimately, the Cold War.[25]

With the aim of advancing their own scientific development, both the United States and the Soviet Union embarked on the project of bringing German and Austrian engineers to their respective countries to help develop missile technology. In the United States, this endeavor was known as Project Overcast and later as Project Paperclip.[26] These engineers were initially only intended to stay a few months, long enough to help end the war in Japan, but the start of the Cold War meant that these engineers were kept on permanently. Many of these engineers were former Nazis, but this fact was consciously overlooked because of the more pervasive and growing fear of communists—Americans let the project get swept under the rug.[27]

One of the most famous engineers from Project Paperclip was Wernher von Braun. Von Braun had first risen to prominence due to his role in helping Nazi Germany develop V-2 missiles—a newly-developed missile that the Germans used to bomb Allied cities. Due to his experience, von Braun was brought over to the United States along with 120 other German scientists to assist in developing missiles.[28] By 1953, von Braun had helped develop America's first missile, the Redstone, and his name became widely known. America had tried to keep his Nazi history hidden, even classifying his related documents. However, these efforts to conceal his past were not entirely effective, as when his face was shown on *Time*'s 1958 cover (see the image on the left[29]), his past was slightly noted.[30] But, by this time, Sputnik 1 had already launched, and von Braun had become one of the most prominent endorsers of space exploration. He promised to land on the

[25] Ibid.

[26] Ibid.

[27] Ibid.

[28] de la Graza, Alejandro. 2019. "How Historians Are Reckoning With the Former Nazi Who Launched America's Space Program." Time. https://time.com/5627637/nasa-nazi-von-braun/.

[29] James Vaughan, *Werner-von-Braun-TIME-Feb-17,-1958*, September 21, 2009, photograph, https://www.flickr.com/photos/x-ray_delta_one/3940922893.

[30] "How Historians Are Reckoning With the Former Nazi Who Launched America's Space Program."

moon, and he ultimately delivered, with his rockets putting the first man on the moon.[31] Von Braun's story is just one of many that can provide insight concerning the lengths to which the United States was willing to go to gain superiority in the Cold War and, later, the Space Race.

The Space Race: 1955–1960

In 1955, the Soviets announced their intent to launch an artificial satellite into space. While they were responding to a similar proclamation from the United States, neither nation had yet to complete this daunting task. Hence, the Space Race was afoot.[32] It would not be until 1957 that the Soviets would complete the first leg of the race by launching the first artificial satellite, Sputnik 1. Sputnik 1 sparked great concern in the United States; it passed over the U.S. numerous times during orbit, causing fear from both politicians and citizens alike that the Soviets had newfound nuclear and espionage capabilities.[33] All were stunned that the Soviet Union had made such quick advancement in technology and thought that bombings could be possible on the mainland. American citizens's trust in national defense was completely shaken, and they urged their government to act and respond.

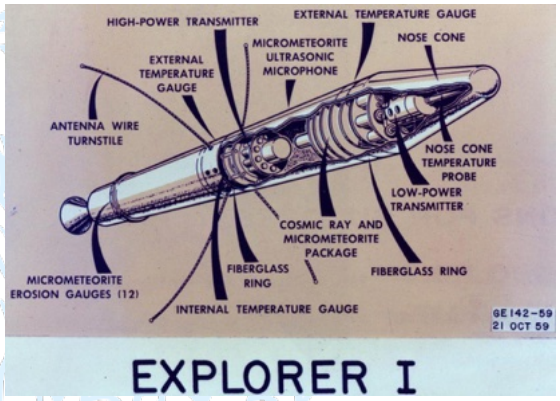


Diagram of the U.S.'s first satellite, Explorer 1.[34]

Before the United States could respond to the Soviet's first move, the USSR launched Sputnik 2, holding the first animal to ever go to space—a dog named Laika. While Laika sadly did not survive the journey due to stress, this event would set the stage for both of the nations' long term goals: to send men to space. In 1958, the U.S. finally launched its first satellite, Explorer 1. While the technological equipment on board led to the discovery of the Van Allen Radiation Belt, Explorer 1 was rather small and could not compare to the demonstrated technical progress of the Soviet Union.[35] Understandably, this disparity greatly concerned then President Dwight Eisenhower. On July 29, 1958, he signed the National Aeronautics and Space Act (NASA), creating an agency and committee

[31] Ibid.

[32] Royal Museums Greenwich. n.d. "Space Race Timeline." Royal Museums Greenwich. Accessed August 8, 2023. https://www.rmg.co.uk/stories/topics/space-race-timeline.

[33] Davis, Maddie. n.d. "The Space Race." UVA Miller Center. Accessed August 8, 2023. https://millercenter.org/the-presidency/educational-resources/space-race.

[34] *Jupiter-C, the first American Satellite, Explorer 1 Launcher*, October 21, 1959, illustration, https://picryl.com/media/early-rockets-e56ff5.

[35] "Space Race Timeline."

dedicated to space exploration.[36] The National Aeronautics and Space Administration (NASA) thus replaced the National Advisory Committee on Aeronautics (NACA).

The first major accomplishment following the creation of NASA was the launch of SCORE, the first communications satellite. This satellite captured the world's attention by broadcasting a Christmas message from President Eisenhower, which became the first broadcast of a human voice from space.[37] Following this achievement of the United States', the Soviets had achievements of their own. At the very beginning of 1959, the Soviets launched Luna 1, a spacecraft that nearly scraped the surface of the moon.[38] Though, not long after, the United States launched Explorer 6, the first weather satellite that captured the first images of Earth.[39] Only a month later, the Soviets launched Luna 2, which finally succeeded in hitting the moon—yet another unprecedented event.[40]

While 1960 was a much slower year in the Space Race, the USSR did have one major achievement: they successfully sent a variety of plants and animals to space. The two dogs sent, Belka and Strelka, along with a range of plants, returned from their trip alive.[41] We don't know if they saw any terrier-estrials, but we're sure it was an un-fur-gettable experience.

The Space Race: 1961–1969

John F. Kennedy argued during his presidential campaign in 1960, "Control of space will be decided in the next decade. If the Soviets control space, they can control the Earth, as in past centuries the nation that controlled the seas has dominated the continents."[42] The Space Race had become the most visible fight in the Cold War, with space exploration symbolizing more than just technological advancement. Space became the new frontier, and whoever could conquer it would show the world that they had the strength and vitality needed for an evolving world. Furthermore, space was also a serious matter of national security. For decades, the United States had felt no fear of a war on its territory, but nuclear war and space were whole new threats unlike any seen before. Although the United States' military was still considered to be the strongest at the time, many Americans took up Kennedy's call-to-arms. In response, he ushered in one of the biggest technological projects in peacetime. Unlike his predecessor, Eisenhower,

[36] "The Space Race."

[37] "Space Race Timeline."

[38] "The Space Race."

[39] "Space Race Timeline."

[40] History.com Editors. 2010. "The Space Race: Timeline, Cold War & Facts." History. https://www.history.com/topics/cold-war/space-race.

[41] "Space Race Timeline."

[42] Werth, Karsten. "A Surrogate for War—The U.S. Space Program in the 1960s." *Amerikastudien / American Studies* 49, no. 4 (2004): 563–87. http://www.jstor.org/stable/41158096.

Kennedy made space exploration a spectacle and gave the matter the utmost importance.

Americans and observers threw in their support for the space program for a variety of reasons. Some, like Wernher von Braun (see WWII to Cold War for more on him) saw space as an area where fighting could take place, while Earth would remain unaffected and peaceful.[43] If fighting were to happen, they reasoned, at least it was not going to be on Earth. Others viewed the effort as contributing to the containment of communism—a war on communism that did not require raising arms directly against the other side. A Democratic Senator from Indiana, J. Edward Roush, summarized the goal to reach the moon as "to go on the offensive in a peaceful way in this great battle in the Cold War."[44] A Republican Senator from Iowa, H.R. Gross, agreed, "In this Cold War fight with the communists, the new battlefield is space."[45] By 1961, daily newspapers and radio stations affiliated with the Associated Press voted the Space Race as the top story of the year.[46]

While American citizens and most politicians were fully on board with the Space Race, the United States' Space Program had not done much to warrant such enthusiasm. The Soviet Union had already launched many successful projects, and observers were calling on America to step up to the challenge. The U.S.'s moment came in 1962, when Astronaut John Glenn became the first man to orbit around the Earth aboard the Air Force Atlas ICBM (shown to the left[47]). An estimated 135 million television viewers watched the event.[48]

The Soviet Union followed up the event with victories like the first simultaneous flight of two space capsules and the first woman in space, Valentina Tereshkova, aboard the Vostok 6 mission in 1963.[49] However, these events did not deter the United States, as they continued to press on. John F. Kennedy famously said in a 1962 speech at Rice University, "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 our skills."[50] The entire nation was brought together

[43] Ibid.

[44] Ibid.

[45] Ibid.

[46] Ibid.

[47] Greg Goebel, *atlas, icbm, strategic, air, space, museum, Nebraska*, photograph, https://pixnio.com/objects/missiles-bombs/atlas-icbm-at-strategic-air-space-museum-nebraska.

[48] "A Surrogate for War."

[49] Ibid.

[50] Ibid.

and harnessed their collective efforts into this project.

But this social mobilization felt during the Space Race could be (and was) easily manipulatable. Politicians and government elites recognized the value of rhetoric that manifested a perpetual state of emergency. Pentagon strategists, weapons manufacturers, scientists, and engineers quickly made allies with military officials, members of Congress, and even the President's inner circle. Communism became the easy excuse for the decisions made by the government and the ever-present belief in "permanent preparedness" that required Americans to accept mobilizations and spending on space expenditures. By building up narratives, NASA was remarkably effective in building a vast space infrastructure and ballooning its budget from only 500 million dollars in 1960 to 5.2 billion dollars in 1965.[51] Apollo would cost roughly 25 billion dollars—yet it seemed that the United States was willing to spend whatever it took.[52]

Despite the budget the U.S. government allotted to their space program, the USSR was consistently achieving successes before their counterparts. Alexei Leonov would become the first human being to float freely in space by achieving a ten minute "space walk" in the spring of 1965.[53]

Soviet cosmonaut Alexei Leonov's berkut spacesuit (the style of suit used for the space walk).[54]

But, as Alexei was space walking, the political tides were changing in the U.S. By 1965, President Lyndon B. Johnson was now in office and faced increasing pressure from all sides as the Vietnam War was raging. Aside from the war, his focus was his aggressive plan to end poverty, known as the Great Society plan. Through these initiatives, Americans began to realize that they wanted to see their money spent closer to home. NASA's funds were cut, and President Johnson did not mention space once in his State of the Union address in 1966.[55] Despite the waning fervor in space, the U.S. Space Program still marched on with enough strength to push forward the Apollo Program. The Soviet Union was no longer pushing as many space

[51] Ibid.

[52] Ibid.

[53] Ibid.

[54] Craigboy, *Berkut spacesuit at Air and Space*, August 1, 2011, photograph, https://commons.wikimedia.org/wiki/File:Berkut_spacesuit_at_Air_and_Space.jpg.

[55] "A Surrogate for War."

achievements, and the United States seemed poised to win the race. There were some setbacks and fear, like when three astronauts died in 1967 during a ground rehearsal, or when the world's first space station (*Salyut*) was announced and seen as a possible national security threat.[56] However, the same fear that pushed Americans to support the space program and view it as an existential necessity was waning and nearly gone.

On June 20, 1969, the first men walked on the Moon during the Apollo 11 mission, and America's flag was placed on the Moon.[57] The astronauts declared that they had come in peace and that space could serve as a space for mutual coexistence (as was achieved in Antarctica, at around that same time). With this feat, the main goal of the Space Race was achieved, and the United States was the clear winner. It is worth noting that, ironically, Apollo 11 came at one of America's lowest points of support in space. Additionally, at this time, the Vietnam War was a disappointment and a failure for the United States—Americans were frustrated. Carl Sagan noted the irony of President Nixon and the Apollo 11 Astronauts signing a plaque that said, "We came in peace for all mankind," while America was dropping bombs in Vietnam.[58] By the end of the Space Race, the media was constantly reporting on scandals and attacking NASA while Americans grew more and more indifferent to space. On December 11, 1972, Apollo 17 was the last piloted spacecraft to reach the Moon, arguably marking the end of the golden age of space exploration.[59]

Statement Of The Problem

The Space Race Amid The Cold War

The Cold War demanded more from the U.S. than just the advancement of superior spaceflight capability. The Cold War, most importantly, pitted the United States and the Soviet Union against one another in numerous 'hot wars' in a struggle for supremacy. Political ideology and political and economic systems were all at stake. While the United States aims for the sky, they are juggling aiding various other countries in their fight against communism, as well. These wars were not only financially costly, but they were also costly in regards to lives, with tens of thousands of troops dying.[60] [61] Thus, the U.S. cannot solely focus on advancing the Space Race. The President (and the rest of the government) must ensure that the public remains happy with

[56] Ibid.

[57] Ibid.

[58] Ibid.

[59] Ibid.

[60] Harrison, Mark. 2018/2019. "The Cold War: Costs and Results." University of Warwick. https://warwick.ac.uk/fac/soc/economics/staff/mharrison/war_and_economy/13_cold_war_costs.pdf.

[61] Department of Veteran Affairs. n.d. "America's Wars." VA.gov. Accessed August 8, 2023. https://www.va.gov/opa/publications/factsheets/fs_americas_wars.pdf.

the U.S.' handling of the Cold War, without the risk of alienating their support and hindering their ability to act in the Space Race. Congress is also expecting progress and positive results, and, with their control over power of the purse, not providing the desired results could cause retaliation and a loss of funding for other projects.

A closer look at some of these wars will provide a clearer illustration of the various challenges the U.S. faced alongside the Space Race.

Korea (1950-1953)

The Korean War happened before the start of the Space Race, but it set the tone for the military involvement that the U.S. would be willing to carry out, the U.S.' priorities in global politics, and the constantly fluctuating support from the public towards U.S. activity in the Cold War. What was first supposed to be a peaceful example of cooperation between the U.S. and USSR to handle the division of Korea resulted in a deadly conflict. Gallup polls show the constantly shifting opinion of Americans relative to how the U.S. was performing and responding to the Soviets' actions and, ultimately, the status of events. It is also important to note that Americans were unsure of what role the United States should play in and with the United Nations.[62]

[62]Crabtree, Steve. 2003. "The Gallup Brain: Americans and the Korean War." Gallup News. https://news.gallup.com/poll/7741/gallup-brain-americans-korean-war.aspx.

Cuba

The Korean War may have introduced the United States to the conflicts it would expect to see for decades to come, but it did not demand the same sense of immediacy and fear as events in Cuba did during this time. The Cuban Revolution brought communism to the doorstep of the U.S., and was a constant reminder to Americans and the government of the situation they now found themselves in. In response to this perceived threat, John F. Kennedy tried to depose Fidel Castro by initiating the Bay of Pigs Invasion in 1961. The mission was a failure and ultimately helped strengthen Castro's position as he proceeded to further ally with the Soviet Union.[63] Events further escalated during the Cuban Missile Crisis of 1962. Although JFK was able to de-escalate the situation and bring an end to the fear of nuclear warfare at the moment, Cuba continued to be a source of anxiety. However, this period also brought a reevaluation of the nuclear arms race and the roles that the United States and the Soviet Union had as global powers. Throughout the committee, delegates will be reminded that the Space Race was not just intrinsically about getting a man on the moon—the U.S. and USSR were both committed to advancing their nuclear arms cache.

[63]Office of the Historian. n.d. "Milestones: 1961–1968 - Office of the Historian." Department of State. Accessed August 8, 2023. https://history.state.gov/milestones/1961-1968/bay-of-pigs.

Thus, handling the nuclear problem goes hand-in-hand with the race to space.

Vietnam (1955-1975)

As one of the longest wars the U.S. was involved in, Vietnam was a constant source of conflict and controversy back home. With the largest loss of American soldiers in any war outside the Civil War and the two World Wars, the misinformation the government provided, and the reluctance of admitting defeat, the committee will be constantly reminded of the impact the war has back at home. This is the time for counterculture and anti-war activists that left significant marks on the American way of life.[64]

Anti-Vietnam War protest by veterans in Washington, DC.[65]

Espionage, Distrust, And Propaganda

With the Cold War underway, the USSR and USA set out to thwart each other's plans of growing global power, gaining intelligence, and disrupting policy. Much of the initial push for the Space Race, especially by Eisenhower, was with the goal of reconnaissance through satellite observation that the U.S. had not yet developed. By the time Sputnik 1 launched, the U.S. was aware of the importance of non-military satellites for gathering information on the ground and set out to quickly catch up with the USSR and develop their satellites.

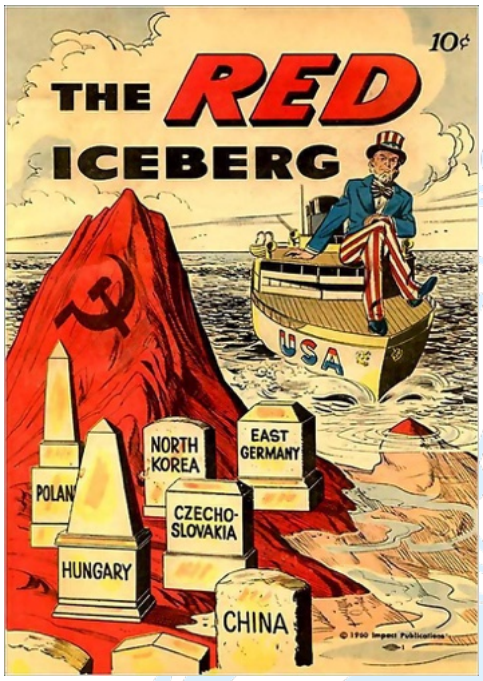
But satellite reconnaissance was only part of the espionage happening. There were also multiple cases of spies infiltrating all levels of government from both the U.S. and the USSR. Several spies were identified in the U.S., like Klaus Fuchs and Theodore Hall, who were crucial in providing the Soviet Union with confidential information that aided their advancement in the arms race.[66] The Space Race also had its fair share of spies; coworkers who seemed like trusted friends would wind up being secret spies pledged to the communist cause.[67]

[64] "America's Wars."

[65] Frank Wolfe, *Public Reactions: The March on the Pentagon*, October 21, 1967, photograph, Johnson White House Photographs, National Archives, Washington, DC, https://catalog.archives.gov/id/192604.

[66] The National WWII Museum. n.d. "Cold Conflict." The National WWII Museum. Accessed August 8, 2023. https://www.nationalww2museum.org/war/articles/cold-conflict.

[67] Castellano, Joseph A. 2008. "Rocket Science and Russian Spies." American Scientist.



The increasing tension of the Cold War, the rise of espionage, and the activity of the Communist Party of the United States of America led to outright fear of communism and the rise of distrust and propaganda (see an example above).[68] Delegates will have to balance a highly volatile scene—a scene where many decisions are made based on fear rather than fact, but that are nevertheless popular and demanded. There is also no guarantee that the very people the committee works with are to be trusted and that information does not leak. All that is assured is that emotions run high at this point, and all decisions made will affect the progress made in space.

A Race For Scientific Prowess

When the Soviet Union launched Sputnik 1, the first artificial satellite, in 1957, the United States was deeply concerned. Sputnik's launch via an intercontinental ballistic missile represented the possibility that the Soviets could use this new and advanced technology for international nuclear warfare. Further, the satellites might be used to gather covert intelligence. However, the launch of Sputnik was also a symbolic problem: space was considered the next frontier, and the United States prided itself on its historic tradition of exploration. Losing ground to the Soviets, their Cold War adversaries, could not stand.[69]

The first problem the committee will be dealing with is how to address Sputnik and the Soviets. Addressing this issue should begin with the committee's organization of its own representative body, the NASC, which was created incorporating the better known NASA in 1958 by then President Dwight Eisenhower. NASC tied together the scientific might of the nation along with various levels of international security. Groups like the Air Force and the Central Intelligence Agency (CIA) were not only crucial for advancing the Race to Space, but also for spying on the Soviets.[70] Between all these different roles, the height of the Space Race saw around 375,000 people employed for the project

https://www.americanscientist.org/article/rocket-science-and-russian-spies.

[68] James Vaughan, *1960 ... iceberg threat !*, January 7, 2010, photograph, https://www.flickr.com/photos/x-ray_delta_one/4255230047.

[69] "The Space Race: Timeline, Cold War & Facts."

[70] "Cold Conflict."

(this number is comparable to the entire population of Wyoming at the time of this committee!).[71]

This leads to the next set of issues that the committee will need to address. Once NASC has been created and its organizational structure defined, there will be the issue of technological advancement balanced with funding and safety. Further, any spying will need to be covert and well-organized, and all technology will need to progress in the proper sequence. Once delegates have been able to launch satellites, they can think about sending animals into space, then people, then the possibility of lunar exploration. But this will come with many issues. For example, testing issues like the 1967 failed launch test of Apollo killed three astronauts. These tragedies are avoidable; and not only do they threaten American lives and make the United States look bad to the Soviets, but also result in the loss of trust from the American people. Further, just the Apollo mission alone cost the United States 280 billion dollars in today's money.[72] Clearly, delegates will need to consider how to fund these projects and if it's even reasonable to take money away from other Cold War issues, or even just general American welfare.

Balancing International Interests

If the United States is utilizing such extensive funds and manpower in the Space Race, it is worth asking: should they work with other nations? Doing so could advance their cause, but also sacrifice international security or American principles. For example, during the Space Race, the Americans employed former Nazi Scientists. Additionally, some countries aided the United States, notable examples being Lichtenstein and Switzerland.[73] [74] However, during this time, the United States was also commanding a secret operation called Corona, which utilized satellite technology to spy on the Soviets.[75] The delegates may receive requests from many other nations or choose to reach out to other nations for help, but they will need to weigh if this extra help is worth the risk.

Lastly, delegates will need to keep in mind that the committee will end with the creation of an International Space Treaty. Depending on which countries they work with during the Space Race

[71]The Planetary Society. n.d. "How much did the Apollo program cost?" The Planetary Society. Accessed August 8, 2023. https://www.planetary.org/space-policy/cost-of-apollo.

[72]"How much did the Apollo program cost?"

[73]Embassy of the principality of Liechtenstein. n.d. "Liechtenstein's Contribution to the Apollo 11 Moon Landing | Embassy of the Principality of Liechtenstein in Washington, D.C." Embassy of Liechtenstein. Accessed August 8, 2023. https://www.liechtensteinusa.org/index.php/article/liechtensteins-contribution-to-the-apollo-11-moon-landing.

[74]Atmani, Mehdi. 2019. "Switzerland's role in the first moon landing." House of Switzerland. https://houseofswitzerland.org/swissstories/history/switzerlands-role-first-moon-landing.

[75]"The Space Race: Timeline, Cold War & Facts."

and which countries they ignore or even work against, later diplomatic proceedings could become easier or more complicated.

Character Biographies

Edward C. Welsh, Space Advisor to United States Senator

Edward Welsh, an economist from New Jersey, is one of the figures who has great potential to be at the center of the Space Race. He is currently an advisor for Senator Stuart Symington on space-related matters, but, in the eyes of his peers, he seems to be shaping up for greater leadership and involvement in NASC. His training in economics has taught him two things: first, that all aspects of an issue must be addressed thoroughly, and second, that protecting one's own interests (or in this case, the nation's interests) is contingent on acting quickly and with vigor. Therefore, going into this committee, he believes the country's space policy should be approached in a multi-faceted manner, giving equal consideration to scientific, technical, economic, and national security needs—exactly what is not going on with the Soviet's space program. To Welsh, time is of the essence.

Senator Stuart Symington, United States Senator from Missouri and Former Secretary of the Air Force

Stuart Symington, a former businessman, began his foray into the political sphere after he joined the Truman administration in 1945. He became the Secretary of the Air Force in 1950 and, during his time in NASC, served as a United States Senator from Missouri starting in 1953. As a Senator, Symington has been a member of both the Armed Services and Aeronautical and Space Sciences Committees. He is said to be looking to launch a Presidential primary bid in 1960. With his expertise in both committees, he bolsters and promotes the idea of a "missile gap," claiming the United States lags technologically behind the Soviet Union. Though more hawkish in his promotion of the Space Race, Symington is a staunch opponent of McCarthyism and the Vietnam War, earning him the nickname "Sanctimonious Stu" from opponents.

Dr. T. Keith Glennan, Administrator of NASA

Dr. Glennan earned his degree in electrical engineering from the Sheffield Scientific School of Yale University in 1927. With this education, he entered the world of sound motion pictures, working as a studio manager for Paramount Pictures. In WWII, he would become much more active in civic life; he served in various positions like Chair of the Board of the Institute for Defense Analysis and member of the Board of the National Science Foundation and the Council on Financial Aid to Education. In 1958, he became the first Administrator of the National Aeronautics and Space Administration. As Administrator, Glennan is looking to secure NASA's primacy in the federal government for the execution of all space activities except

reconnaissance satellites, ballistic missiles, and a few other space-related projects, most of which are still in the study stage under the control of the Department of Defense.

Hugh L. Dryden, Deputy Director of NASA

After working in an advisory capacity for the Air Force during WWII, Hugh L. Dryden began what would be a long career in American aerospace research and leadership. Starting in 1946, Dryden became the Director of Aeronautical Research for the National Advisory Committee for Aeronautics (NACA), NASA's predecessor. During his time at NACA, he worked on many rocket-related projects, while also serving on numerous governmental advisory committees, including the President's Scientific Advisory Committee. Furthermore, until 1956, he was the editor of the Journal of the Institute of Aeronautical Sciences. Once NASA was established in 1958, he transitioned over to the position of being Deputy Director of NASA. As Deputy Director, one of his major goals is to coordinate the sharing of satellite information and other data exchange between the United States and Soviet Union.

Senator Albert Gore Sr., United States Senator from Tennessee

By the age of twenty-nine, Mr. Gore had left local Tennessee politics and began serving in the House of Representatives as a Representative from Tennessee. During these early years as a representative, Gore could be described as a hawk, justifiably warning the American people of the Germans and calling for war. He later resigned his seat to serve in the army during World War II. Post-war, in 1952, Gore won an open Senate seat and has just been reelected for a second term. But now, Gore's rhetoric on war is much different. Where he was pro-war before WWII, Gore now gives many speeches staunchly against any war against Communism or any involvement in Vietnam. This rhetoric, along with a changing Southern political landscape, has led to Gore Sr. being seen as an environmentalist and war dove. Instead of war, could space be an outlet for competing in a nonviolent way?

Katherine Johnson, NASA Aerospace Technologist

Katherine is a monumental figure for her role in both the Black Civil Rights Movement and NASA. After graduating from West Virginia State College with the highest honors in math, she was selected as one of only three Black students to study at West Virginia University as they began to integrate the school. However, she did not finish the program. Regardless, in 1952 she joined the all-Black West Area Computing section at the National Advisory Committee for Aeronautics' (NACA's) Langley Laboratory, headed by Dorothy Vaughan. She worked on projects like analyzing data from flight tests, but she would become much more active with NACA, later NASA, when Sputnik 1 was launched. (Fun fact: her answer to what her greatest contribution to space was the calculations that helped sync Project Apollo's Lunar Module with the

lunar-orbiting Command and Service Module.) She comes into committee ready to work on new projects with plenty of experience (especially relating to flight trajectory), as she has authored or coauthored many research reports.

Mary Jackson, NASA Aerospace Engineer

Originally from Virginia, Mary Jackson began her career as a bookkeeper at a national Catholic community center. Her work in space technology began in 1951, when she was recruited to work for the National Advisory Committee on Aeronautics (NACA). Working under Dorothy Vaughan, Jackson was a research mathematician or "computer" in the segregated West Area Computing section in the Langley Research Center. However, after accepting work at the Supersonic Pressure Tunnel in 1953, Jackson decided to go back to school to become an engineer. By 1958, she became NASA's first Black female engineer, advancing scientific research and opportunities for fellow scientists. She is active in multiple different research divisions, primarily focusing on aerodynamics, and is helping women and minority researchers advance their careers by advising them on education and promotional opportunities.

Dorothy Vaughan, NASA Supervisor

In 1943, right in the midst of World War II, Dorothy arrived at the Langley Memorial Aeronautical Laboratory, working in the segregated "West Area Computing" unit where all of the workers were Black female mathematicians. By 1949, the computing unit had been involved in many operations at Langley, and Dorothy was promoted to lead the group as the first Black supervisor for NACA. Beyond the numerous contributions Dorothy has had in mathematical space calculations, she has had a great impact in advocating for the other women she worked with, arguing for their promotion and pay raise. Her team has now integrated into the newly formed NASA program. She comes into the committee with ample experience in aeronautics-related mathematics and a belief that technology will soon play a major role in mathematical calculations. To her, it is better to start preparing for these new tools in advance. (Fun fact: by the time she retired in 1971, she helped many other women in the field like Mary Jackson and Katherine Johnson enter the U.S. Space Program).

Jerrie Cobb, Pilot and Manager for Aero Design and Engineering Company

Born in Oklahoma with a father working as a pilot, Jerrie Cobb took to aviation at a young age. By the age of twelve, she could fly a plane, and by eighteen, she had her commercial license (this license requires a great deal of hours in the sky, demonstrating Cobb's familiarity with flight). By 1959, she was the pilot and manager for the Aero Design and Engineering Company, making her one of only a few women executives in aviation. Cobb's experience flying many types of aircraft with many hours spent in the sky makes her input

invaluable. She comes to committee with a determination to put women in space alongside their male counterparts. She also believes in the importance of proper evaluation before candidates are sent into space.

Congressman George P. Miller, Chair of the House Committee on Science and Aeronautics

Congressman Miller was born in San Francisco and would stay in the region for years, graduating from Saint Mary's College of California in 1912 with a degree in civil engineering. He worked as a civil engineer for many years until he entered political life as a volunteer in the drive to end Prohibition. After his local involvement in politics, he would be elected as a House Democrat for California for fourteen consecutive terms and became Chair of the Committee on Science and Aeronautics. He is well aware of the effect that the spectacle, the "race" aspect of the Space Race, has on the American people, but simultaneously argues that the Space Race is much more than just a show. According to Miller, it is not just about proving America's prestige—the American effort should be grounded in scientific investigation. As chairman, Miller is closely involved in many NASA projects and is an advocate for the programs within the government.

Alan Shepard, Aircraft Readiness Officer

Shepard graduated from the United States Naval Academy in 1944 and from the Naval Test Pilot School in 1951. He made use of his education by beginning his naval career in the Pacific Ocean during World War II and later becoming a pilot, logging more than 8,000 flying hours. More specifically, Shepard became a test pilot instructor and is currently an Aircraft Readiness Officer. Shepard is eager to develop the necessary technology to put humans in space and may even be willing to go himself, if given the chance. He does not believe in throwing caution to the wind, however, and puts great importance on safety and developing the best versions of technology possible.

John Glenn, Fighter Design Specialist at the Naval Bureau of Aeronautics

Glenn has been involved with the military for a significant part of his life. Glenn entered the Naval Aviation Cadet Program in March 1942, and, after graduating, was commissioned in the Marine Corps in 1943. He flew 59 combat missions during WWII. Afterwards, he became a flight instructor until he once again served in Korea for 63 missions. Recognized as a prolific pilot (with more than 9,000 flying hours, plus the title of "test pilot"), he is a prime candidate for being sent into space. Glenn just completed Project Bullet (involving supersonic transcontinental flight) last year but is now stuck at a desk job in the Bureau of Aeronautics. He places a heavy emphasis on bolstering the sentiments of the American public, protecting the environment, and developing technology to further innovation in flight. His experience as a test pilot will also prove useful for both consultation and anything else related to humans in space. If becoming an astronaut doesn't work, he may have a shot at running for public office—just anything to escape his desk.

Senator Clinton P. Anderson, United States Senator from New Mexico

After finding himself in Albuquerque, New Mexico, in a bout against tuberculosis, Anderson would quickly find himself immersed in the local political scene. He held positions like the Executive Secretary of the New Mexico Public Health Association, Chairman of the New Mexico Democratic Party, and State Treasurer. Anderson would then join Congress as a House Representative from New Mexico in 1940, and by 1948, he went on to the Senate. As a Senator, he has been an ardent supporter of the U.S. Space Program as it mounts in importance. Not only does Anderson influence policy relating to space exploration, but he also holds a lot of sway on the budget of said projects. Anderson will go to extreme lengths to secure funding for space-related activities.

Senator Barry Goldwater, United States Senator from Arizona

While Barry Goldwater began his public service as an Air Force Major General in WWII, he is much better known as a soldier of conservatism during the middle part of the 20th century. An Arizona native, Goldwater has served as a Senator from Arizona since 1953. Despite his youth, it is possible that the Presidency is already on his mind. So far in office, he has rejected the legacy of the New Deal and been staunchly anti-communist and labor union, but he has also heavily involved himself with the Space Race. While fairly removed from the technical work of the Space Race, Goldwater recognizes its importance in fighting communist powers and spends much of his energy advocating to advance the Race. Furthermore, Goldwater looks to remove the Space Race from civilian hands and instead put it into the hands of the military, specifically allocating more funding to the Air Force.

Senator Karl Mundt, United States Senator from South Dakota

Karl Mundt is someone you want on your team. A Representative from South Dakota from 1939 to 1948 and a Senator from South Dakota since 1948, Mundt has so far had a career of exercising much political influence. The leader of the South Dakota Republican Party, which held outsized power in the national legislature, it was generally agreed that if the Republicans wanted to get something done, they would need Mundt on their side. While not presently considered as one of the driving forces in the Space Race, Mundt knows how to capitalize on the Space Race to advance his goals. He has utilized the increased funding for technology to fund his own projects and understands how the Space Race aligns with his fiercely anti-communist foreign agenda. Karl Mundt will be sure to remind delegates to look at the bigger picture: what else is going on in the domestic sphere and what the influence of the Space Race will be on said sphere.

Senator Margaret Chase Smith, United States Senator from Maine

One of the most prominent political forces behind the Space Race, James E. Webb was quoted saying there would never have been a man on the moon if not for Margaret Chase Smith. Originally a Republican Representative from Maine (from 1940 to 1949) and later a Senator from Maine (starting in 1949), Chase Smith broke grounds as the first woman to represent Maine in either position. Though a moderate Republican, Chase Smith is known as someone who is not afraid to butt heads. In 1950, she was the first Republican to criticize McCarthyism, earning her many foes. Moreover, she is not known to be shy when it comes to advocating to take military action she deems effective (especially against the Soviets). She is a staunch supporter of the Space Race and will do what she can to contribute extensively to its success.

Senator Henry M. "Scoop" Jackson, United States Senator from Washington

By the time Henry Jackson reached seventy-one years old, he held the record for the longest service in Congress. He has had an illustrious career in the halls of Congress as one of the most influential politicians in terms of foreign policy impact. As a Congressman, he has had success crafting legislation that benefits his region, the Pacific Northwest. But it has been his time as a Senator that has allowed Scoop to truly make an impact. He served on the Joint Atomic Energy Committee, becoming an early advocate for the use of atomic energy for military and civilian use. His role on the Permanent Subcommittee on Investigations placed him in the midst of the McCarthy trials, where he shone on the national stage as fair and impartial. He is an ardent anti-communist, pitting him against the USSR (he is particularly active in determining Cold War strategy), and thus causing him to advocate for involvement in the Vietnam War. Jackson is one of the biggest supporters of increased spending on defense. He is also seen as the key figure in getting foreign policy legislation to pass, and could potentially have the Presidency in his future.

Chris Kraft, NASA Flight Operation Specialist

The name of Chris Kraft may not be all too familiar, but much of the early history of NASA, and what NASA is today, is inseparable from the legacy of Chris Kraft. Kraft has a gift for speaking and is a natural leader; when Kraft speaks, people listen. In 1945, Kraft joined NACA, the predecessor to NASA, researching aircraft design flaws. Kraft joined NASA in 1958 after NACA integrated into the program. In this new role, Kraft is determined to get a man on the moon, and he thinks he is the man to be in charge of getting them there (even if he gets an ulcer in the process). It also couldn't hurt to earn some favor from the American public along the way (could there be a Time Magazine cover in his future?).

James Webb, Former Under Secretary of State and Oklahoma Oilman

James Webb, a North Carolina native (and the namesake of today's famous Webb Telescope), has the potential to play an essential role in the Space Race. His role as a pilot in the Marine Corp during WWII

gives him useful experience on military strategy that other politicians may not have. Webb served as the Under Secretary of State from 1949 to 1952, during which he gained experience relating to administration (one of his first tasks was reorganizing the whole department) and advocating for funding. Although he is wary of directly confronting the Soviets militarily, he is not against increasing the defense budget or investing in weapons research. While Webb largely retreated from politics and currently works for Kerr-McGee Oil Corporation, he is still active on the Draper Committee (formally known as the President's Committee to Study the United States Military Assistance Program). Webb is well-respected in Washington, D.C., focused on integration, and is always ready to use his connections to achieve the goals he has in mind. If you're aiming for organization and smooth-talking, Webb's your guy. Similarly, if you're looking for a bigger fan of telescopes, it would be hard to find one.

Robert F. Kennedy, Chief Counsel to the U.S. Senate's McClellan Committee

Born into the Kennedy family, Robert, most commonly known as Bobby, was immersed in political life. In 1952, he had a short stint as Assistant Counsel for the Senate Permanent Subcommittee on Investigations headed by Joseph McCarthy. He then left the committee, but rejoined in 1954. Domestically, he places great importance on furthering civil rights and voting rights for Black Americans and reducing the growth of crime. For foreign policy, he advocates for more peaceful solutions (especially those avoiding the use of nuclear weapons) and emphasizes human rights as central to U.S. foreign policy (which he pushes in Latin America). That search for peace is ever so vital in talks of space. Further, as a key member of the McClellan Committee on Labor Relations, RFK will be sure to advocate for the rights of the many mechanics, technicians, and other members of the Space Race labor force.

William Randolph Lovelace II, Chairman of the NASA Special Advisory Committee on the Life Sciences

After receiving his medical degree from Harvard University in 1934, William Randolph Lovelace II knew he wanted to pursue his passion for aviation. After becoming a flight surgeon and First Lieutenant in the Army Corps Medical Reserve in 1938, he began a career of aeromedical research. Early career projects included the creation of high-altitude oxygen masks and research to promote women's participation in spaceflight. While Lovelace started his work for the government in 1951 as part of the Armed Forces Medical Policy Council, he worked for many years before his involvement with the Space Race. First researching the effects of nuclear shockwaves and high altitudes, it wasn't until 1958 that Lovelace was appointed as the chairman for the NASA Special Advisory Committee on the Life Sciences. He will be essential in deciding the astronauts

chosen for activities in space and elements of the astronaut training program. He is widely seen as a pioneer in the field of space medicine.

Vice Admiral John H. Sides, Director of the Weapons Systems Evaluation Group

As American space exploration had a shaky start, Sides' work in developing America's missile program has been vital in not only technological advancement, but also in maintaining American morale. His work on guided missiles began in 1947 when he became the Deputy to the Assistant Chief of Naval Operations for Guided Missiles. From there, he began his ten-year stint in the Navy, leading their guided missiles program and earning him the reputation and title as the "father" of the Navy's guided missile program. Finally, in 1957, he was called back to D.C. where he led the Pentagon's Weapons Systems Evaluation Group. During his time here, the USSR successfully launched Sputnik, shifting a lot of attention on President Eisenhower's decision to focus on long-range missiles rather than satellite development. Sides became a major supporter of Eisenhower and argued that the race for long-range weapon systems was more important than getting the first satellite into space.

Hermann Bondi, Secretary of the Royal Astronomical Society

Hermann Bondi, one of the few non-Americans on the committee, probably won't have access to any top secret American intelligence, but is nevertheless an essential ally for NASC. An Austrian-British mathematician and cosmologist, Bondi is famous for creating the "steady-state model" and contributing to the Theory of General Relativity. Currently, he is a professor at King's College London and the Secretary of the Royal Astronomical Society. He is also dedicated to space research and international intellectual cooperation. Prior to the creation of the International Space Treaty, Bondi will play an important role in making sure American delegates remember the Space Race is a multi-nation international effort.

Robert Gilruth, Pilotless Aircraft Specialist

After earning his Bachelor of Science in aerospace engineering in 1935 and Master of Science in 1936, Gilruth joined NACA. As a junior engineer, he was assigned to a new project related to the flying and handling qualities of airplanes. Making great strides in the field, he published a summary of his work, which became one of the premier manuals for aircraft designs and operators. He has continued his time at NACA by researching and developing technological advancements in aircraft engineering, and he has been extensively involved in the shift from NACA to NASA. By October 2058, Sputnik had shocked the world and called for the most qualified Americans, like Gilruth, to lead the U.S. Space Program. His ample experience will make his opinion valuable as the U.S. ventures further into the Space Race.

Colonel Samuel C. Phillips, Director of the Minuteman Intercontinental Ballistic Missile Program

Like many members of this committee, Samuel C. Phillips began his career in the Air Force. Colonel Phillips received a plethora of military and aerospace experience via his time fighting in World War II, and later leading various missile deployment programs. In this role, he seeks to improve management and efficiency. He also is a proponent of bringing in Air Force personnel to fill management positions, along with instituting common procedures, terminology, and documentation in order to prevent oversights that could potentially lead to failure. Along with design reviews and change control, Philips supports daily check-ins as the standard, such that there is no room for a loss of faith from the public or government. Colonel Phillips is the true embodiment of "safety first", while still prioritizing military-like efficiency and the public will.

Major General John B. Medaris, Head of the Army Ordnance Missile Command

As his title implies, Medaris was very involved in the military, enlisting in both World Wars and the Korean War. After the Korean War armistice in July of 1953, Medaris shifted his focus to something new: guided missiles. In 1956, Medaris became an outspoken Commander advocating for the launch of seven new U.S. satellites, but was forbidden from doing so. Medaris's will and urgency was heightened when Sputnik 1 launched and the U.S. had nothing to counter with, yet officials still did not allow for satellite launches. It would take Sputnik 2 for U.S. officials to cave and allow for Medaris to prepare, but not execute, a satellite launch. In 1958, the Pentagon finally allowed Medaris to launch a satellite with a military rocket. The Juno launch system was assembled and successful, leading to America's first satellite transmitting from orbit. Medaris became the Head of the Army Ordnance Missile Command on March 31, 1958, giving him full control of the American Ballistic Missile Agency and thus leading to more satellite and rocket development. He comes into committee with extensive experience with, and knowledge about, guided missiles and satellites (but also a hope to retire soon—he has already tried multiple times).

Pierre Victor Auger, Director of the UNESCO Department of Mathematical and Natural Sciences

Pierre Victor Auger, one of the few non-Americans on the committee, may not be privy to all the secret American intelligence, but he nevertheless remains an essential ally. A French physicist from Paris, Auger is famous for the "Auger Effect" and many other discoveries over the course of his career, where he specialized in atomic, nuclear, and cosmic-ray physics. Since 1948, Auger has served as the Director of the UNESCO Department of Mathematical and Natural Sciences. Auger is devoted to encouraging international cooperation between scientists of different nations, thus bringing into committee both his physical knowledge and desire to further science worldwide. Prior to the creation of the International Space Treaty,

Auger will play an important role in making sure American delegates remember the Space Race is a multi-nation international effort.

George Mueller, Program Director of the Pioneer Program

George Mueller has been interested in science fiction, aviation, and technological innovation since his childhood (and is known today as "the father of the space shuttle"). During WWII, he started his work on radar technology in the famed Bell Labs and continued after the War's end. In 1957, he joined Ramo-Woodridge Labs and has been active in the Electrical and Mechanical Laboratories. Furthermore, he is one of the directors of the Pioneer Program, heading research and development. His experience with radar technology has great potential to be useful for this program. While many are doubtful of his "all-out testing" strategy (testing machinery all at once in space rather than part by part), he believes in its efficacy. He comes to committee with a focus on organization (making the case for multiple other specified branches) and innovation.

Neil Armstrong, Experimental Research Test Pilot

Neil Armstrong has had quite the career (and is now regarded as one of the most famous participants in the Space Race). Originally studying as an aeronautical engineer, Armstrong postponed his education to fight in the Korean War, flying from aircraft carriers. However, following his education, Armstrong went on to work for the National Advisory Committee on Aeronautics' High Speed Flight station, run by the Air Force. He has a strong reputation as a fearless test pilot. Due to this experience, he has great interest in running and participating in exploratory human space flight programs.

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