VTMUNC

est. 2024

The Space Race Crisis Committee

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Letter From the Secretariat

Dear Delegates of VTMUNC II,
We appreciate your participation and dedication to the premier Virginia Tech Model United Nations Conference's efforts to promote productive and civil discourse and conversation. Nevertheless, please be warned that some presentations, discussions, and or information found in the background guides may contain delicate or triggering material. At Virginia Tech, we prioritize fostering a safe and inclusive environment, so we want to ensure that you are prepared for the nature of the discussions to occur.
That being said, the following content areas may contain sensitive material:

1. **Conflict Zones & Human Rights Violations**: Some conversations may involve sensitive global problems including human rights violations, armed conflicts, and or other difficult themes.
2. **Sensitive Cultural or Religious Topics:** Some topics may raise sensitive cultural or religious issues for individuals.
3. **Violence and Trauma:** In their speeches or resolutions, delegates may reference incidents of violence, trauma, or abuse in real-world scenarios that may potentially be a sensitive topic to delegates in committee.
4. **Discussions about Discrimination and Marginalization:** Emotionally intense discussions concerning discrimination, marginalization, or inequity may arise during committee.

As you prepare for the conference, we encourage all of our delegates to approach these discussions with both respect and empathy for differing perspectives. If the content of these committees is something that you are uncomfortable with, we recommend that you take the appropriate steps to prioritize your well-being, such as seeking support from conference staff or Secretariat of VTMUNC II. Bound by the motto Ut Prosim (That I May Serve), we serve to ensure that we will promote constructive and respectful dialogue during committee sessions. As you prepare and participate in the conference, we promise that VTMUNC I will stay committed to creating a space where all your voices are heard and are welcome. Thank you for your compassion and cooperation to our goal of respectful and intellectual discourse for all. We hope that as you progress with our conference, you continue to bloom.

Sincerely,
Shriya Chemudupait, Secretary General of VTMUNC II
Anneli Sample, Under-Secretary General of General Assemblies of VTMUNC II
Holly Johnson, Under-Secretary General of Crisis Committees of VTMUNC II
Thomas Quinn2, Under-Secretary General of Specialized Agencies of VTMUNC II

Conference Guidelines

The first iteration of the Virginia Tech Model United Nations Conference, otherwise known as VTMUNC I, is committed to providing a safe and pleasurable experience for all delegates, advisors, and individuals involved with VTMUNC I. Although participating in Model UN is being involved in competitive activity, its fundamental purpose is to uphold and put into practice both the principles of diplomacy, collaboration, and cooperation. Any individual that violates the policies and procedures of VTMUNC I and the ideals of an open and inclusive environment will be subject to disciplinary action from the staff of VTMUNC I; disciplinary action may include a warning or being disqualified from receiving awards. Promoting an environment that is open to all by being safe, equitable, and exhilarating is our utmost priority. In order to ensure this, the following are prohibited:

1. Any pre-writing or working on committee content outside of VTMUNC I committee sessions (as described by the Schedule of Program).
2. Any speeches, directives, crisis arcs, or actions in committee that intend to create violence or promote a violent environment to a specific group of people, including mentions of sexual violence, graphic violence, and other behavior that is beyond committee guidelines.
3. Any hate speech, written documents, or behavior that uses language that is discriminatory and disrespectful, including but not limited to any language that is racist, sexist, homophobic, transphobic, xenophobic, antisemitic, Islamophobic, or language harmful to any specific group.
4. Any actions that are deliberate, both knowingly and intentionally, to bully, harass, or otherwise harmful behavior that may or has hurt other delegates' physical and or mental health.

Overview of Crisis Committees

As the wise and bright minds of the world engage with knowledge of the unknown, new and innovative ways of thinking start to dominate the world. Said ways of thinking make the world what it is today: a cocktail of organized chaos or, what we like to call it, organized crisis. Unlike any conventional committee in the Model UN Circuit, Crisis Committees are unique spaces of debate which consist of continuous cycles of debate filled with uncertainty and, in the process, crisis. Their procedure differs from the procedure that committees in the General Assembly manage, having no formal motions to open debate nor speaker's lists to depend on. This causes crisis committees to resort to 3 styles of debate, which are:

1. Round Robins are a style of debate in which each delegate has a stipulated amount of time to express their opinions/thoughts with respect to the current crisis situation. The delegate proposing the motion to round robin will have the right to stipulate the amount of time each delegate has to speak (equally). It is recommended that round robins be executed at the beginning of the committee or when there are major crisis updates throughout the committee.
2. Moderated Caucuses consist of a specific topic of discussion, a duration, and a speaking time per delegate. These will have chairs individually calling delegates to speak in the debate, be a default if the chair doesn't exercise a round robin motion, and managed in continuous rolling cycles throughout the debate.
3. Unmoderated Caucuses, on the other hand, are a style of debate which focuses more on free discussion and flow of debate between delegates without a necessity to conduct a motion to structure speech. Delegates will have full autonomy of how many times they speak in the unmoderated caucus and will be able to chat with other delegates relative to the topic being discussed.

Letter From the Chair

Dear Delegates,

Welcome to VTMUNC II and the Space Race Committee! I am beyond excited and honored to be serving as your chair for this committee. This committee holds a special place in my heart as this is a topic that both Vihaan and I are very passionate about. I am a sophomore studying Aerospace Engineering here at Virginia Tech. I live in Richmond, Virginia now, although I have lived across four countries and three U.S. states. Growing up with exposure to such diverse environments helped me naturally be an open and curious person, and this curiosity led me to pursue Model United Nations.

My journey with Model United Nations began in 2019 when I attended my first conference as an eighth-grader, severely underprepared for what was about to be one of the most transformative experiences of my life. Model UN has changed my life for the better, helping me acquire some of the most important skills of my life. Model United Nations isn't just learning about history, but building your future.

Regardless of whether you have prior experience, or if this is your first conference, we are very excited to have you here. We acknowledge and appreciate the effort you have put in to prepare yourself for this conference, and we hope to leave you with something memorable and valuable after this experience. The nature of this committee will have you thinking on your feet and viewing the world from different perspectives. This committee consists of conquering the unknown, so I want you all to take risks. As you portray your assigned characters, we hope it reflects a side of you as well. We cannot wait to see you in February!

Best Regards, Tanishqa Gautam
tanishqa@vt.edu

Letter From the Crisis Director

Dear Delegates,

It is with great pleasure that I welcome you to the Space Race Committee! My name is Vihaan Ambre and I will be the Crisis Director for this committee. A little about me, I am a Senior here at Virginia Tech studying Computer Science and Political Science, with a minor in Science, Technology & Law. Although I now live in Raleigh, North Carolina, I'm originally from India and also lived in Latin America for about half my life. I've been involved with MUN since my freshman year of high school and I currently lead the Competitive Model UN team here at Virginia Tech as the Head Delegate and serve as President of MUN@VT. Additionally, I served as the Chair for the Camp Half-Blood committee during the inaugural VTMUNC I. If this is your first crisis committee, or if you have any confusion, don't be afraid to ask for help and clarification! My goal first and foremost as your CD is to see you perform at your best by the end of the weekend and if any bit of feedback can help you get there, I'm happy to oblige!

I am extremely excited to have the privilege of running this committee as I have been obsessed with space ever since I was a kid. Like Tanishqa, I too came into college intending to be an aerospace engineer, but I quickly realized that my interests lay less in engineering and more in the history of space exploration. The Space Race represents our personal interests and experiences. Tanishqa and I want this committee to be a mix of fun and competition. Embrace creativity, take risks, and let your personality shine through, that is a recipe for a great weekend of debate and discussion! If you have any questions, feel free to reach out to Tanishqa or I through our emails. We are here to make this experience enjoyable for you, and it starts with making sure you're prepared for what we hope will be a great experience.

Best, Vihaan Ambre

vambre9864@vt.edu

Glossary

Sputnik: The first artificial satellite launched by the Soviet Union in 1957, marking the start of the Space Race.

Space Race: The competition between the United States and the Soviet Union during the Cold War to further advance technology and contribute to space exploration.

NASA: The National Aeronautics and Space Administration, a U .S. agency established in 1958 to oversee space exploration.

Cold War: A period of political and military tension between the United States and the Soviet Union, characterized by ideological conflict and an arms race, which further led to a competition to reach space.

Wernher von Braun: A German rocket scientist who became a key figure in the U.S. space program after World War II.

Operation Paperclip: A U.S. program to recruit German scientists, including those involved in rocket technology after WWII.

Operation Osoaviakhim: A Soviet operation in 1946 to forcibly relocate Germanscientists and their families to work in the USSR.

Project Gemini: A U.S. space program that developed the necessary technology for the Apollo lunar missions.

Apollo Program: A U.S. space program initiated in 1961 with the goal of landing humans on the Moon and returning them safely to Earth.

V-2 Rocket: A missile developed during World War II by Germany which is considered the first long-range guided ballistic missile and became the blueprint for a lot of modern space exploration technology.

Karman Line: The internationally recognized boundary of space, located 100 kilometers above the surface of the Earth.

Valentina Tereshkova: The first woman to travel to space; from the Soviet Union.

International Geophysical Year (IGY): A scientific collaboration from 1957-1958 focusing on global research, including space exploration.

Saturn V Rocket: A heavy launch vehicle developed by NASA, greatly contributed to Apollo's mission of landing on the Moon.

Red Scare: A period of intense fear of communist influence in the United States, was worsened by the Cold War.

Explorer 1: The first U.S. satellite launched successfully in 1958 in response to the Soviet Union's Sputnik.

Juno I Rocket: A modified version of a Redstone rocket that launched Explorer 1, assisting with the U.S.'s first successful satellite launch.

Intercontinental Ballistic Missile: A long-range missile capable of delivering nuclear warheads, vital in the Cold War, and linked to early rocket technology.

National Advisory Committee for Aeronautics (NACA): The predecessor to NASA, conducted aeronautical research and laid the groundwork for the American space programs.

Fort Bliss and White Sands Province Ground: Key sites in the U.S. where German scientists worked on rocketry under Operation Paperclip.

Sergei Korolev: The lead Soviet rocket engineer who is known as the father of the Soviet space program.

Dual-Use Technology: Technology developed for civilian purposes that can also be modified to be used for military purposes.

Missile Gap: The fear during the Cold War that the Soviet Union had an upper hand over missile capabilities compared to the United States.

Committee Introduction

In the aftermath of World War II, the United States and the USSR sought a new frontier to assert their influence over: space. The battle is not only ideological but technological as well. The origins of this competition lay in the race to harness rocket technology- which had been significantly advanced by German scientists during the war. Both the United States and the Soviet Union intended to secure these scientists and their knowledge. By the late 1950's the race reached a critical point with the launch of Sputnik 1, the first artificial satellite by the Soviet Union. Shocking the American public and setting off the "Space Race", American space policy had to evolve to keep up, leading to the establishment of NASA.

This committee takes place in the summer of 1963, a pivotal moment in the Space Race. Vice President Lyndon B. Johnson has convened key figures from across the American space program—engineers, scientists, military leaders, policymakers, and public figures—to discuss the future of NASA and America's space exploration strategy. The stakes are high: Congress is increasingly skeptical of the costs associated with Apollo, technological challenges threaten project timelines, and the Soviets remain an enigmatic yet dangerous competitor. Public support for space exploration must be cultivated, the balance between military and civilian space efforts maintained, and the ultimate objective—landing a man on the Moon—realized.

Delegates in this committee will confront these challenges head-on. You must determine how best to secure the funding and public support needed to sustain NASA's ambitious programs, outpace the Soviets in the Space Race, and lay the foundation for America's long-term presence in space. In this era of uncertainty and opportunity, the future of space exploration rests in your hands.

Background Information

Origins of Rocketry & World War 2

Modern rocketry formally had its roots in the early 20th century. Inspired by works of science fiction, pioneers such as Konstantin Tsiolkovsky in Russia, Robert Goddard in the United States, and Hermann Oberth in Germany developed the framework that would later become a key component used in modern-day space exploration. However, these individuals all faced respite and ridicule from both scientific colleagues and the public alike, believing that traveling to space was not a realistic goal. However, it was during World War II that rockets transitioned from theoretical concepts to practical applications. Nazi Germany's V-2 rocket program, led by Wernher von Braun, represented the first long-range guided missile and a milestone in aerospace technology.

The Peenemünde Army Research Center was founded in 1937, on the island of "Usedom" on the Baltic Sea. This area was where the majority of the development of the German rocketry program occurred. Wernher von Braun served as the Technical Director during this time and the successes that the rocketry program was having led to increased interest by the Nazi party into the development of their rockets for the purposes of war. However, this period faced many ups and downs. The "V1" represented their first finished product, a pulsejet engine-powered cruising missile that would be deployed to bomb London and the rest of England. However, while this rocket achieved propulsion, it had a very short range, so this required the rocket scientists to figure out how to increase that range for more potential targets. Eventually, their findings culminated in the creation of the V2 rocket, a larger, heavier, but more powerful rocket, running on liquid propulsion.

The development of the V-2 rocket represented a significant leap in engineering and science, but it also exposed the immense resources required for such advancements. The program combined advancements in propulsion systems, guidance technology, and materials science to create a weapon capable of traveling at supersonic speeds. The very first man-made object to cross the border into space was a test rocket for the V2 prototype in the Peenemunde Army Research Facility on June 20th, 1944, known as test MW 18014. The rocket reached a max height of 176 kilometers, well above the 100 kilometers mark that would be defined as the start of space a few decades later as the Karman Line. Even though this marks the first time that humanity broke the space barrier, at the time it was nothing more than just a test of how the V2 rockets would function at such high altitudes and vacuums. The Germans knew they were ahead of their enemies, but they were not aware just how far away they were.

Other countries had attempted to develop their own rocketry technology, but none to the same success as the Germans. The United States, the United Kingdom, and the Soviet Union all had very minimal development in their rocketry capabilities throughout World War 2. The British focused on defensive artillery against the V2s while the Soviets created the Katyusha rocket launcher, but it was much more short-ranged as compared to the V2. In the United States, the Jet Propulsion Laboratory (JPL) developed the “Private” and the “WAC Corporal” rockets, but these were much smaller and experimental as compared to the V2s that the Germans were using. The

Americans even attempted to reverse engineer the V2 through Operation Hermes, but they would not make much progress until the post-war era.

It is important to note that an integral part of the German's superiority within rocketry during this era stemmed not just from their headstart and funding for research, but also from the slave labor of prisoners of Concentration camps in Nazi Germany. Prior to the complete takeover by the Nazi regime, von Braun, who is often seen as the face of the V2 program, was originally contracted to research liquid propulsion through a top-secret operation run by the German army. However, when the Nazis took over, the shift of focus towards the rearmament of German forces also meant more funding for the rocketry program, which von Braun was well aware of. While there is not much solid proof that many of the scientists involved with the rocketry program did or did not sympathize with the ideals of the Nazi party, through a combination of social and external governmental pressure, many of the top scientists in the rocket development program became active members of the Nazi party, including von Braun. Additionally, the majority of the manufacturing of parts came through the Mittelbau-Dora concentration camp, where over 10,000 prisoners were forced to work on the parts, allowing for rapid development and iteration of the design leading to the success. In comparison, other nations were only able to create smaller, expensive, experimental rockets that were unable to develop at the same rate. Thus while the development of the V2 rocket was fundamental to the rise of the space race, it did so with a very dark past.

Post WWII Space Race scramble (Growth of aerospace in America)

Through the reconstruction period of Europe, the people of most countries were focused on getting their bearings and achieving "normalcy" but the USSR and the United States came out as the top ideological and influential powers of the world. However, they both emerged on opposing ends of the ideological spectrum, with the United States emerging as the leader of the "Western Bloc" and the USSR as the leader of the "Eastern Bloc", representing capitalism versus communism, respectively. In this struggle for ideological dominance, both the United States and the Soviet Union recognized the strategic importance of German rocketry technology and expertise. As mentioned earlier, both the Americans and the Soviets had attempted to make their own long-range missiles but were not nearly as successful. The Germans had made massive advancements in technologies such as jet propulsion and radar, which the USA and the USSR intended to capitalize on for their own research. Additionally, the V2 rocket had shown that it was possible to cross the barrier into outer space, and as the global scale of the world war had begun establishing rather solid spheres of influence over land and water, the Americans and the Soviets sought control of a new frontier: space. The ability to reliably be in space provided the opportunity for these nations to develop both strategic and political strength over the other in the form of satellites and more. In the hopes of being able to continue their research into rocketry, as the war was coming to an end, the German scientists at Peenemunde decided to surrender themselves early to the Allied powers, of which the Soviets and the Americans both belonged during WWII. The scientists would then go on to be interrogated about their activities, exposing the dark side of their technological development. However, from here, there would be an all-out scramble to recruit as many scientists as possible to either side.

On the Soviet side of things, they benefited heavily from the partition of Germany with the allied powers, as they received much of eastern Germany which housed most of the facilities involved with the development of V2 and rocketry technology. Thus, they were able to easily seize these facilities and the personnel working in them to integrate them in their own aerospace efforts. However, this doesn't mean that all the scientists went willingly. While the Soviets were able to easily recruit some scientists who held sympathies for the socialists and communists, they had to use force for the majority of scientists. The Soviets executed Operation Osoaviakhim on October 22, 1946, where they moved over 2500 German scientists, engineers, and technical workers across many fields and industries and their 4000 family members were taken, often at gunpoint, to work in the Soviet Union as a form of war reparations. Of these, over 200 scientists were already working on the rocketry division for the Soviet's lead technical director, Sergei Korolev, who would go on to be called the father of the Soviet space program. The logic behind this operation was to effectively transplant the systems the Germans had set up at Peenemunde and extract it all into Soviet hands and provide them an advantage in the information war. By bringing not only the scientists but their families as well, it reduced the likelihood that the kidnapped Germans would try to escape, so this operation could be kept within their control. After this however, much of the activities of the Soviet Union would take place behind the Iron Curtain, as the USSR aimed to get ahead of the Americans in the race to space.

The United States, however, took a much different approach. Espousing the ideals of freedom, they did not force any of the rocket scientists to come to the United States, but they did coerce them with funding and a relatively clean slate, as the scientists would have otherwise been left to fend for themselves in a war-torn and weak Germany, to be held accountable for any war crimes they may have been complicit with through the course of the war. Instead, the Americans offered a chance to start a new life with proper funding to continue their research into space exploration technology. This undertaking would be known as Operation Paperclip, where over 1,600 German scientists, engineers, and technicians would be brought over to the United States and given government jobs to help create American scientific advancements. However, the American government controversially decided to overlook the fact that many of the scientists that they had recruited had direct ties to the Nazi party, bringing forward the question of the ethics behind this secret operation. Leaders within the scientists, such as Wernher von Braun, preferred moving to the United States for what they saw as better working conditions and a fear of potential Soviet repression (many scientists and intellectuals had been killed or imprisoned a decade prior in the Great Purge of 1937). However, unlike the Soviets, who had also taken the scientists' families with them during their relocation, the United States did not offer this benefit immediately to all the scientists. The main focus of the operation was to extract the scientists as quickly as possible for the Germans' research and work, and unlike the Soviets, who had also rounded up the scientists' families during Operation Osoaviakhim, this meant that most scientists would have to leave their families behind, something which not every scientist was ready to do (many of these scientists would be the ones that would end up being kidnapped by the Soviets as mentioned above). Eventually, though, the American government would be able to relocate their families to join them in their secret testing facilities such as Fort Bliss, Texas and White Sands Proving Ground, New Mexico, where they worked on rocket development and testing.

Upon arriving in America, the German scientists were immediately put to work starting with the completion of Operation Hermes, or the reverse engineering of the V2 rockets. However, once this project was completed, the state of the U.S. rocketry program would be fragmented, as the Army, Navy, and Air Force all pursued their own independent rocketry programs with very little coordination. For example, the Army would continue to develop V-2 technology with von Braun's team, leading to the creation of the Redstone rockets, which were originally conceptualized as an evolved ballistic missile. The Navy would invest time and money into the Viking rocket program, a series of liquid-fuel rockets used to gather data for scientific experiments. The Air Force on the other hand, focused on the development of jet propulsion and missile systems, engineering a new era of aerial technology, working with entities such as the Jet Propulsion Laboratory, or JPL. However, the lack of a unified vision between the three branches of the military, which were the primary backers for the rocketry program (i.e. provided the projects and their scientists with funding) ended up slowing progress, as interservice rivalries began to pop up in rocket technology development. However, through it all, one entity became a consistent and crucial part of these efforts: the National Advisory Committee for Aeronautics, or NACA, a civilian agency that helped in institutionalizing all this aeronautical research.

Many of these early American rocket launches were used to run experiments with tools for atmospheric and space research. Projects like the Aerobee rockets (1947) carried instruments to study the upper atmosphere, gathering data on cosmic radiation and weather patterns. But even with the consistent amount of funding that these efforts were getting, many of the rocket scientists involved felt trapped by the military origins and motives behind this money, and there had not been much of a push towards pure space exploration, a concept which had inspired many of the scientists to go into their field in the first place. Wernher von Braun, who by the 1950s had achieved a level of normalcy in American life, would go on to spend the next few years helping popularize the concept of space exploration to the American public. He would publish many news articles, also working with influential figures such as Walt Disney to create television films about space exploration so as to reach even more people in the public and help pave the way to make space exploration a reality. Military funding would continue to be the dominant financial backing for rocketry projects, but these efforts sowed the seeds of public interest in space exploration, which could influence civilian agencies to provide more support for a space exploration program.

Sputnik and the Public Response

The turning point for space exploration would come during the International Geophysical Year (IGY) of 1957-1958. The IGY was a global scientific effort to study Earth's environment, including the upper atmosphere and space. Over 60 countries participated, including the United States and the Soviet Union. This marked a rare moment of international scientific collaboration between the opposing sides of the growing "Cold War". The IGY would end up becoming a framework for pushing boundaries in science, and as part of the IGY, both the Americans and the Soviets announced plans to launch artificial satellites, creating the first official race between the two nations to be the first to achieve success in space exploration.

Up to this point, while many of the American militaristic projects such as those of the Army had been kept top secret, much of the research-based rocketry projects had been rather transparent. The NACA had published much of its work on space technology and aeronautical research in scientific journals, accessible to the public around the world. Projects like the Navy's Viking rockets and jet propulsion experiments run by the Air Force had been openly discussed as scientific endeavors by politicians and the public alike. Even some aspects of the work done by Wernher von Braun's team for the army had become more publicized thanks to von Braun's outreach efforts. This meant that failures, such as early rocket tests, were visible and often widely publicized, leading to public criticism and embarrassment.

In contrast, the Soviet rocketry programs were kept under strict secrecy. In true Soviet fashion, all operations were centralized and managed by the central government, with tight control over information. For example, many of the German scientists who were brought over to the Soviet Union during Osoaviakhim were made to live under constant surveillance. All their communications and movements were restricted, and many were made to live in isolated "science cities", compounds that were designed to limit external contact. This level of secrecy was so intense that even the Soviet public and most of the scientists in the country were unaware of the full extent of the countries' space capabilities. Compared to the Americans, test launches were conducted in isolated areas, meaning that all launches, including failures, were kept secret from the public. Meanwhile, scientists like Sergei Korolev, who would go on to be considered the father of the Soviet space program (and effectively Wernher von Braun's counterpart), were kept anonymous even from those working directly on rocketry and space projects for security reasons.

All of this is to say, that when on October 4th, 1957, the USSR announced the successful launch of the satellite Sputnik 1 into orbit, it all came as a massive shock to the entire world, and especially to the Americans, who had no prior indication that the Soviets were anywhere close to achieving this milestone of the first artificial satellite to orbit Earth. Over its 1440 orbits, the 184 lb satellite would routinely send out radio pulses, detectable even by amateur radio operators. Sputnik's launch and simple capabilities emphasized a crucial aspect in the difference in approaches in the space race. While the Americans had been framing its space efforts as scientific and peaceful (further seen by their decision to announce their launch during the IGY), the Soviets intended to use their achievements in Space as a form of propaganda; to project to the public a perceived technological and ideological superiority as compared to the West.

The success of the Sputnik launch also brought in potential militaristic concerns. The rocket on which Sputnik was launched as a payload, the R-7, was developed as an intercontinental ballistic missile, or an ICBM. In actuality, the space capabilities that allowed for the launch of Sputnik were rather an extension of their military priorities. This created a fear of a “missile gap” of which it seemed to the public that the United States was falling behind in their own development of missile and rocket technology. However, before the United States would be able to launch anything in response to Sputnik 1, the USSR was able to launch Sputnik 2 on November 3rd, 1957, carrying the first live animal into orbit, Laika the dog, which would prove to be another major success in both the achievements and the data that the second satellite allowed them to gather. However one sees it, the launch of Sputnik 1 and Sputnik 2 had shifted the focus of rocketry from its primarily military applications towards more scientific exploration and human spaceflight. The USSR had officially started the Space Race, and it was now time for the Americans to make their move and respond.

American Response

As part of the IGY, the American effort had intended to use the Navy’s Vanguard rocket for their satellite launch. Compared to the Soviets, who only announced their launch after the success of their satellite, the Americans had widely publicized its launch of the Vanguard TV3, their response to Sputnik. Unfortunately, on December 6th, 1957, the Vanguard TV3 would proceed to explode on the launch pad, providing a damaging blow to American morale and further stoking the flames of the American public’s fear of a technologically superior USSR.

However, there was one many who knew that all of this history could have played out very differently: Wernher von Braun. Von Braun knew that the United States could have beaten Sputnik by almost a year; the Redstone missiles that his team had developed for the army already had the potential to be adapted for satellite launches before Sputnik. The Jupiter-C rocket, which was a modified Redstone, had already shown that it had the capabilities to go to space in 1956, while the Vanguard rocket was still in development and untested in orbital launches in 1957. The main reason why the Vanguard rocket was chosen was because its research focused creation could be presented as more civilian led and more of a non-military effort. The Jupiter-C rocket, in contrast, was developed by the Army for militaristic purposes (similar to the Soviet R-7 that took Sputnik to space). The US government, under President Dwight Eisenhower, wanted to avoid the perception of militarizing space and escalating tensions with the USSR, so they avoided the Jupiter-C. Additionally, the decision making process within the American government surrounding rocketry programs was slow and all over the place thanks to the rivalries of the military branches over control of their respective programs, causing inefficiencies and delays. There was also an air of complacency as up until Sputnik 1 launched, the Americans were under the impression that the Soviets were nowhere close to a launch. But following the failure of the Vanguard TV3, von Braun's team was given the chance to prove what they already knew. The Army funded team was made to accelerate the development of the Explorer satellite program. Eventually, on January 31, 1958, Explorer 1 successfully launched on Juno 1, a modified Jupiter-C rocket, marking the first American object to orbit the Earth. While the Americans were proud of their great accomplishment, they were also well aware of the fact that they had come second in this race, and changes were necessary to mitigate the issues that lost them the race in the first place.

President Eisenhower recognized the need for a centralized agency to oversee and unify the nation's civilian and military space programs. The failure of the Vanguard project and the success of Explorer 1 had highlighted the disparity between the independent programs. This led to the creation of the National Aeronautics and Space Administration, or NASA on October 1st, 1958. NASA effectively absorbed NACA, which had been acting as its less powerful precursor for half a century. Additionally, other programs and facilities, such as the Army Ballistic Missile

Agency were also integrated into NASA, creating a more centralized approach to American space efforts. This meant that Wernher von Braun was also able to move from making weapons to developing rockets for space exploration. But while NASA's mission was primarily civilian, it kept working closely with the military to share technology and resources.

Over the next 3 years, both the USSR and the United States would work on their satellite programs, creating a series of lunar and solar probes and taking wins over each other. Eventually, on April 12th, 1961, the Soviet Yuri Gagarin would be the first person to travel to outer space on Vostok 1, marking another major win for the USSR in the space race. But this time, NASA would not be too far behind, as they had been working on Project Mercury since 1958. Less than a month after Gagarin's flight, the United States would successfully launch Alan Shepard on the Freedom 7 on May 5th, 1961. NASA's creation marked the transition from America's reactive efforts against the Soviets to creating proactive space exploration programs.

With the success of Project Mercury, both the space programs turned their sights towards the next major milestone: the first man on the moon. To this end, President John F. Kennedy and NASA authorized the Apollo program, the manned lunar program, which consequently began Project Gemini as well to develop the technology and space travel techniques needed to land and return astronauts from the Moon. Additionally, to meet the increased demands for this endeavor, supporting infrastructure was authorized for NASA, such as the creation of the mission control centers, such as the Integrated Mission Control Center, or *Houston.* Finally, Wernher von Braun and his team of rocket scientists began developing the Saturn family of rockets, which would theoretically be powerful enough to send the necessary payload required for a manned mission to the moon. While all of this is being perfected on the ground level for Apollo, the Gemini program has so far presented the perfect opportunity for America to catch up and overtake the

Soviet Union in the Space Race, with the skills and discoveries being made having the potential to open future doors for more complex goals within space exploration.

Current Situation

It is now the summer of 1963, and President JFK has assigned VP Johnson to gather some of the most involved individuals of the American Space program, as well as some outside voices that could potentially provide alternative perspectives in this board's decision making. Things are starting to ramp up in the project timeline for both Project Gemini and the Apollo program, as in less than a year, Project Gemini will conduct its first of numerous flights which could push the boundaries of what humanity is capable of doing in space. The Apollo program remains the centerpiece of the space program, but significant technical and logistical challenges lie ahead. The Saturn V rocket, the spacecraft, and mission control are all still under development. NASA is receiving much pushback from a growing number of members of Congress, claiming that this mission is not necessary in the grand scheme of things and that the funding for it could be rerouted to something more impactful on the life of the average American. The President has publicly committed to landing a man on the Moon by the end of the decade, but this has done more harm than good as the tight timeline has created much pressure on the space agency.

Additionally, the space race is not just about exploration; it is deeply tied to national security and the Cold War. Many of the technologies being developed for NASA have dual-use potential in military applications. This board must make decisions that carefully balance its civilian identity while relying on its military partnerships for funding and expertise.

The success of NASA, and the American space program as a whole, depends heavily on public support, and efforts need to be made to educate the American people about the value of space exploration. This board needs to agree on the best ways to spark the American enthusiasm for space travel and use it to create a more well-informed population to increase support of the space program.

Finally, this board needs to consider how it wants to move forward regarding the Soviet space program. Valentina Tereshkova has just become the first woman in space, but other than when we hear about their successes, American intelligence knows virtually nothing about what the Soviets are up to. The last thing this board wants is for another Sputnik crisis situation, as it could spark a renewed Red Scare. The lunar mission is the perfect way to demonstrate American technological and ideological superiority, but we can't do so unless the space program is properly set up to succeed with the Apollo program.

Questions to Consider

1. What strategies should NASA employ to garner public enthusiasm and support for space exploration?
2. Should NASA focus more on peaceful exploration or prioritize military applications to outpace the Soviets?
3. Is landing a man on the Moon by the end of the decade a realistic and worthwhile objective, given the tight timeline and high costs?

Character Dossier

Robert S. McNamara- Secretary of Defense

After he graduated from UCLA Berkeley for his undergraduate degree and then Harvard for his MBA, McNamara became the youngest and highest-paid assistant professor at Harvard in 1940 when he returned to work there for a few years. Robert McNamara entered WW2 as a captain in the Air Force and left as a decorated Lieutenant Colonel. After the war, Henry Ford II hired a group of ten chosen men to help reform the Ford Motor Company. McNamara was a part of this selective group for years, at the forefront of industrial innovation until he became the president of Ford in 1960. He was then called up by JFK to discuss the position of Secretary of Defense. McNamara became a valued member of JFK's cabinet and he was commonly consulted by the president for advice. Robert S. McNamara has risen through the ranks of every organization he's a part of, and his vigor, experiences, and most importantly, connections can ensure he remains affluent.

Dean Rusk- Secretary of State

Dean Rusk grew up in Atlanta Georgia where his poor upbringing and Calvinist values shaped his character. A dedicated student, he attended Davidson College and became a Rhodes Scholar, studying international relations at Oxford University. His experiences witnessing global tensions in the 1930s and serving as a colonel in World War II reinforced his beliefs in the importance of international cooperation and military service and showed his capacity to lead. After the war, Rusk joined the State Department, contributing to key initiatives like the Marshall Plan and advocating for the division of Korea at the 38th parallel.

Rusk later served as Assistant Secretary of State for Far Eastern Affairs, where he supported U.S. involvement in the Korean War and French efforts in Indochina, emphasizing containment of communism. He then became president of the Rockefeller Foundation. Known for his loyalty and belief in the "American Dream," Rusk remained a prominent yet polarizing figure in U.S. diplomacy. Rusk is always willing to fight for his beliefs, his tenacity and military connections could serve him well in the future.

Wernher von Braun- Director of the Marshall Space Flight Center

Born in modern-day Germany, Von Braun was an infamous scientist developing rocket technology under the Nazi regime until the US made its controversial decision to recruit him into working for the Department of Defense. Vons Brauns initial time in the army consisted of training soldiers in missiles and rockets before he upgraded from scrounging for funding at Fort

Bliss to leading research in Huntsville Alabama where he created the first Western ballistic missile and satellite. Von Braus has always had the dream of exploring space and with his transfer to the newly formed NASA, he is in a great position to make those dreams come true.

James E. Webb- NASA Administrator

James E. Webb had a long and varied career in public service, beginning as a secretary to U.S. Representative Edward W. Pou during the New Deal era and later assisting attorney Oliver Max Gardner. He worked at Sperry Gyroscope from 1936 to 1944, where he helped the company grow into a major supplier of navigation equipment for World War II. Webb also served in the Marine Corps during the war, leading radar programs for planned operations in Japan. Following the war, Webb became director of the Bureau of the Budget under President Truman. Later, as Undersecretary of State, he played a key role in reorganizing the department and supporting strategic military policies during the early Cold War.

In 1961, Webb became NASA's administrator. During his tenure, NASA transformed into a cohesive organization, advancing not only human spaceflight but also planetary exploration programs like Mariner and Pioneer. Webb's efforts ensured sustained Congressional support for Apollo and established the Manned Spacecraft Center in Houston. Webb's leadership and advocacy for science and exploration have the potential to leave a lasting mark on history.

Hugh L. Dryden- NASA Deputy Administrator

Born in Pocomoke City, Maryland. Dryden showed his capabilities from an early age, he graduated high school at 14 and attended John Hopkins on scholarship before becoming the youngest person ever to receive a doctorate from said college. He then began aerodynamic work pre-WW2 that influenced the creation of the P-52 Mustang while during the war, he worked in weapons development for the Air Force. Post WW2, Dryden became the director of Aeronautical Research for the NACA, which was the precursor to NASA. After the NACA became NASA, Dryden took the role of deputy director in the new agency. Dryden's extensive experience in not only aerodynamic sciences but in administration as well has him well-placed to be an important player in the space race.

George E. Mueller- Associate Administrator for Manned Space Flight at NASA

Born in St Louis, Missouri. George Mueller went to Purdue University before getting his doctorate from Ohio State. Mueller's early career was in researching orthicon technology with Bell Labs and during WW2, his focus switched to radar research. After the war, he got involved with missile research and testing before his famous role with NASA came. Hailed as "NASA's most brilliant and fearless manager", Mueller was critical to organizing the structure of NASA and changing test run policies. Mueller's determination to get things done and make things efficient is a vital asset to NASA in this upcoming crisis.

Edward R. Murrow- Head of the United States Information Agency

Edward R. Murrow was born in North Carolina and attended Washington State University, he grew up impoverished in a log cabin without plumbing or electricity. His first major career was working as the director of European Affairs for CBS. As tensions in Europe heated up, he formed a team of war reporters called the "Murrow Boys". Once WW2 broke out, Murrow followed the action, doing daily live reports from London in the midst of air raids and then reporting from mainland Europe later in the war. Murrow's wartime broadcasts were instrumental in raising morale across the allied nations by bringing the war to American radio. After the war ended, Murrow turned down an offer to run the BBC and instead took an executive position running CBS. After his time running CBS, Murrow left the company to join JFK's administration as the head of the Information Agency. Murrow has a unique set of skills compared to the other government officials involved in this space race, his ability to work with the public, stay calm in a crisis, and undaunting determination to spread information will be invaluable to moving forward in this political cold war battlefield.

Alan Shepard- First American in space and Chief of the Astronaut Office

Alan Shepard was born in New Hampshire and graduated from Annapolis Navy Academy. Shepard was a naval aviator in World War 2 and saw combat multiple times, he also served in Korea, and he then ended his service as a flight instructor. Shepherd's NASA career began with him volunteering to go to space, after grueling testing and preparation, he and 6 others were chosen out of 32. Shepard cared deeply about the mission and his dream came true when he became the first American to go to space. After his return, he became chief of the Astronaut office. Alan Shepard's fierce patriotism, loyalty, and popularity with the people give him room to bring glory to his country once more.

Jerome Wiesner- Special Assistant to the President for Science and Technology

Jerome Weisner was born in Detroit, Michigan. He received his BS and MS from the University of Michigan and later received his Doctor of Philosophy in electrical engineering from UM. Wiesner's professional career began at the Massachusetts Institute of Technology Radiation Laboratory, working on microwave radar development. He became the leader of "Project Cadillac", which worked toward great developments of the AWAC system. After World War II, he worked at MIT as a professor of electrical engineering from 1946 up until 1961, when he was appointed as the chair of the President's Science Advisory Committee by President Kennedy.

Margaret Hamilton- Software engineer for the Apollo Guidance Computer

Hamilton was born in Paoli, Indiana, and graduated from the University of Michigan with BA in mathematics and a minor in philosophy. After completing her degree, Hamilton had initially planned on enrolling in graduate study to further study abstract mathematics at Brandeis University, however, she joined Edward Norton Lorenz in the meteorology department at MIT. She developed software to predict weather and programming on the LGP-30 and the PDP-1 computers. After leaving the meteorology department, she worked on the SAGE project at the MIT Lincoln Lab. She wrote the software for the prototype AN/FSQ-7 computer, which was later used by the U.S. Air Force for their further projects. She also helped further advance satellite tracking software. After discovering the Apollo Project, she joined it, becoming the first programmer, and later a candidate for the lead developer for Apollo flight software.

Katherine Johnson- Mathematician responsible for orbital mechanics

Katherine Johnson was born in White Sulphur Springs, West Virginia and displayed exceptional mathematical abilities from an early age. She graduated from West Virginia State College at the age of 18, studying mathematics and French. She began her career joining the National Advisory Committee for Aeronautics (NACA), which later became NASA. At NASA, she worked as a "human computer", developing orbital mechanics calculations for space missions. Her work mainly consisted of reading the data from the plane's black boxes and carrying out other precise mathematical tasks. Due to her assertive and outgoing personality, combined with her incredible mathematical skills, Katherine earned her way into an all-male flight research team. She further got included in editorial meetings, where no woman had gone before. She specialized in topics such as gust alleviation for aircraft.

Gene Kranz- NASA Flight Director (Mission Control)

Gene Kranz was born in Toledo, Ohio, and graduated from Parks College of St. Louis University with a degree in aeronautical engineering. Kranz had been interested in space at a young age. In high school, he authored a thesis titled *The Design and Possibilities of Interplanetary Rocket,* proposing a single-stage rocket to the Moon. After finishing college, he became a second lieutenant in the U.S. Air Force Reserve. After receiving his wings, he was sent to South Korea to patrol operations around the Korean DMZ. Upon returning, he worked on testing Air-to-Ground missiles for the U.S. Air Force. After completing his research, he joined the Langley Research Center, assisting in Mission Controls procedures. His famous mantra, "Failure is not an option," epitomized his approach to problem-solving and leadership.

Joseph Shea- Apollo Program Manager

Joseph Shea was born in the Bronx, New York, and graduated from the Massachusetts Institute of Technology with a doctorate in mechanical engineering. Shea joined NASA to oversee the Apollo Program as its Manager during its formative years. He played a critical role in the development of the Saturn V rocket and the Command and Lunar Modules. Known for his intellect and technical expertise, Shea was a tireless advocate for rigorous testing and safety protocols.

Arthur C. Clarke- Science fiction writer and futurist

Arthur C. Clarke was born in Minehead, England, and studied mathematics and physics at King's College London. Clarke is best known for his visionary science fiction, including 2001: A Space Odyssey, and his predictions about space exploration, satellite communications, and technology. He served in the Royal Air Force during World War II, working on radar technology, and later proposed the concept of geostationary satellites, which became the foundation of modern communication systems. Clarke's imaginative works inspired generations of scientists and engineers, making him a cultural and intellectual icon of the space age.

William Pickering- Director of Jet Propulsion Laboratory

William Pickering was born in Wellington, New Zealand, and moved to the United States to study electrical engineering at Caltech. As the director of JPL, Pickering oversaw the development of America's first satellite, Explorer 1, which marked the country's entry into the space race. Under his leadership, JPL became a hub for robotic space exploration, managing missions such as Mariner, Pioneer, and Voyager. Pickering's dedication to scientific discovery and his ability to lead complex, cutting-edge projects earned him a reputation as a visionary in the field of space exploration.

Jack Parsons- Rocket propulsion engineer

Jack Parsons was born in Los Angeles, California, and was a self-taught chemist and engineer with a passion for rocketry. He co-founded the Jet Propulsion Laboratory (JPL) and the Aerojet Engineering Corporation. Parsons was instrumental in developing solid rocket fuel and advancing the field of propulsion, which later became critical for both military applications and space exploration. Despite his controversial personal life, his technical contributions to rocketry laid the groundwork for America's ascent into space.

George Miller- US House Rep from California and Chair of the House Science Committee

George Miller, born in Richmond, California, was an influential U.S. congressman with a deep commitment to science and technology policy. As Chair of the House Science Committee, Miller advocated for increased funding for NASA and the development of STEM education programs. His efforts ensured bipartisan support for the Apollo program and the continued advancement of space exploration during the Cold War.

Clark Clifford- Chair of the President's Intelligence Advisory Board

Clark Clifford was born in Fort Scott, Kansas, and earned his law degree from Washington University in St. Louis. A trusted advisor to multiple U.S. presidents, Clifford played a key role in shaping Cold War strategy. As Chair of the President's Intelligence Advisory Board, he provided critical insights on the geopolitical implications of the space race. His ability to navigate complex political landscapes made him a vital figure in advancing U.S. leadership in space.

Neil Armstrong- Astronaut and First Man to walk on the moon

Neil Armstrong was born in Wapakoneta, Ohio, and earned a degree in aeronautical engineering from Purdue University. A decorated Navy pilot and experienced test pilot, Armstrong joined NASA's astronaut program in 1962. Armstrong's composure, technical expertise, and humility made him a symbol of American ingenuity and courage.

Walter Cronkite- Journalist and broadcaster famous for reporting on the space race

Walter Cronkite, born in St. Joseph, Missouri, and educated at the University of Texas, was a pioneering broadcast journalist. As the anchor of CBS Evening News, Cronkite became the trusted voice of America, delivering clear and engaging reports on the space race. His passionate coverage of the Apollo missions brought the excitement of space exploration into millions of homes, helping to galvanize public support for NASA. Known as "the most trusted man in America," Cronkite's reporting played a significant role in fostering national pride during the Cold War.

James Van Allen- Physicist who discovered Van Allen radiation belts

James Van Allen was born in Mount Pleasant, Iowa, and earned his Ph.D. in physics from the University of Iowa. A pioneering space scientist, Van Allen's work was instrumental in early space exploration efforts. He designed instruments for the first U.S. satellite, Explorer 1, which led to the discovery of the Van Allen radiation belts—two regions of charged particles trapped by Earth's magnetic field. This groundbreaking finding marked a major milestone in our understanding of the Earth's magnetosphere. Van Allen's innovative approach to scientific instrumentation.

Frederick C. Durant III- Assistant Director of Astronautics at the Smithsonian Institution

Frederick C. Durant III was born in Philadelphia, Pennsylvania, and earned his degree in chemical engineering from Lehigh University. A leading figure in the promotion and documentation of astronautics, Durant served as Assistant Director of the National Air and Space

Museum at the Smithsonian Institution. He was instrumental in curating exhibits that celebrated the achievements of space exploration and preserving its history for future generations.

Curtis LeMay- Chief of Staff of the US Air Force

Curtis LeMay was born in Columbus, Ohio, and graduated from Ohio State University with a degree in civil engineering before embarking on a distinguished military career. Known for his strategic mind and operational expertise, LeMay became the Chief of Staff of the U.S. Air Force during the early years of the space race. He was a staunch advocate for the militarization of space and played a significant role in fostering collaboration between the Air Force and NASA. LeMay's leadership and focus on technological innovation ensured that the U.S. remained at the forefront of aerospace development.

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