Space Race 1958

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Table of Contents

Letter from the CD	2
Sensitivity Statement	3
Background	7
Chartering a Space Agency - Specialized GA Portion	11
Questions to Consider for Specialized GA Portion	15
The Space Race - Crisis Portion	16
The Crisis	23
Questions to Consider	25
Character Dossier U E	26
Bibliography	31

Letter from the CD

Welcome to MUNE XIV! I'm Hugo Rosen, a sophomore at Emory studying History, and I'm excited to be your Crisis Director for Space Race 1958! I come from Washington, D.C., where I frequently visit the Capitol's public galleries and watch the very Congressional rumblings and debates to which you will be subject throughout this committee! I love to backpack, run, go to the gym, read science fiction, and explore those areas of Emory not marked by blue signs (how often do you think about the spaces between a building's walls?).

From Ra, Egypt's sun god, to Copernicus's theory of heliocentrism in the 16th century, we have always looked to the stars for scientific, philosophical, and religious inspiration. During the 20th century, fueled by the desire for knowledge, profit, and strategic advancement (more on this later), pioneers around the world created televisions, plastics, computers, and, perhaps most consequentially, spaceships. For the first time in history, we left our planet and touched the universe beyond, stepping into what most societies had always viewed as the realm of Gods. Though undoubtedly "a giant leap for mankind," the early years of space exploration were fraught with conflict. America's moon landing, one of our nation's proudest achievements, earned funding and relevance through its relation to objectives of power and influence in the Cold War.

In this committee, delegates should be creative and thorough. Imagine how history could have gone differently, and then enact that vision. Feel free to embrace aliens, advanced technology, etc. Bring in the outlandish and far out, so long as it is backed up by solid reasoning. Assume nothing, attempt everything, and have a great MUNE XIV!

Sensitivity Statement

The study of history is critical to understanding the modern world. When engaging with history, we must treat the past with seriousness and respect. World War II, the Cold War, and NASA's history each involve difficult topics and conversations. Thus, when discussing the past in committee, we ask that you take historical events seriously and not make light of that which, though it happened long ago, affected many people and shaped our modern world. We also ask that delegates also adhere to 21st century moral standards, refraining from any engagement with genocide, colonialisation, exploitation of people etc.

You are expected to maintain decorum throughout the committee and treat these issues with the seriousness they require. Any appeal to or use of discrimination and harassment will not be tolerated. Undiplomatic behavior towards fellow delegates, including bullying, personal insults, and harassment, will also not be tolerated.

MUNE seeks to maintain a fair and balanced environment that allows delegates to shine and showcase their talents. As such, using pre-writing or similarly deceptive tactics like using AI to write working papers in our committee, will not be tolerated by the dais or MUNE as an organization. Plagiarism of any kind is unacceptable at MUNE.

If at any point you feel uncomfortable with the content or dynamics of this committee, we encourage you to reach out to the Chair, Crisis Director, or Secretariat. We are committed to

making this space intellectually rigorous, creatively engaging, and above all, safe and respectful for all participants.



Committee Structure

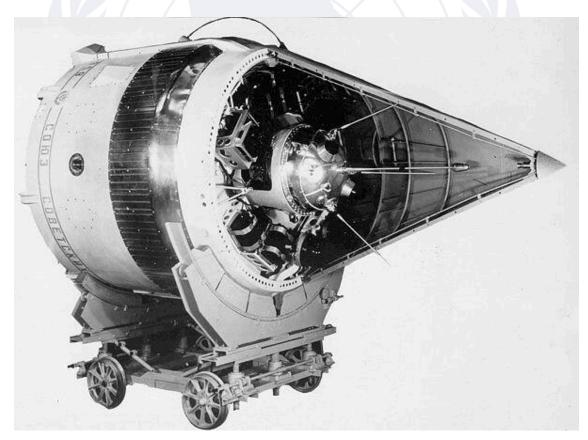
The first three committee sessions will be conducted as a Specialized General Assembly around the question of creating and structuring a national space program. Today's NASA came about as the answer to questions about the future of space exploration during the late 1950's.

Thus, questions like "How much effort should America invest in space?", "What should America be doing in space?", and "Who should lead America's space program?" will form the backdrop of the first portion of the committee. Substantively, delegates should focus on creating an organization and legal structure for a space program, establishing objectives for the program, and ensuring that the program is viable in the context of the political, social, and military world of the late 1950's. While delegates could hypothetically recreate NASA, there are more interesting and unique options for structuring a space program. Delegates might, among other things, assign the task to the military, subsidize private sector partnerships, or create multiple new government agencies to share the task. Creativity and deviation from what actually happened are encouraged.

The first three sessions will follow normal GA rules with one critical modification.

Throughout the drafting process, backroom staff will simulate the United States Legislative and Executive Branches. In order to pass a resolution, you will need to secure a majority of votes in both the House and the Senate as well as President Eisenhower's signature, or the ½ Congressional majority needed to override a veto. In keeping with this committee's theme that history can go many ways, your speeches and working papers will influence what's being talked about in Congress. Thus, resolution papers should be able to secure the votes of fellow delegates, Congressmen and Senators, and the signature of the President. Backroom staff will provide political updates and answer questions regularly throughout this portion of the committee.

The second portion of committee will be conducted as a normal crisis within the organizational framework you create during the first. Delegates will wield the powers and execute the responsibilities of a national space agency while working to achieve tangible objectives in space. Possible goals might include sending astronauts to certain celestial bodies such as the Moon or Mars, demonstrating superiority over the Soviet Union, and maintaining public support throughout domestic political developments. Privately, delegates should seek to influence the committee's direction through arcs which impact the world committee is situated in. The breakout of a war, assassination of a prominent Senator, or establishment of an alliance with an alien polity would all merit discussion in front room.



In 1959, CIA agents smuggled themselves into a Soviet Union space exhibition and acquired detailed plans of the lunar lander model Lutnik 1, unbeknownst to the Soviet Union¹.

¹ https://www.space.com/how-the-cia-kidnapped-a-soviet-moon-probe-during-the-space-race

Background

It was a cold morning on the sandy steppes of Kazakhstan when humanity took its first step towards the stars. On October 4th, 1957, the United Soviet Socialist Republics, led by First Secretary Nikita Khrushchev, launched Sputnik I. Fire lit the surrounding land as an R-7 rocket, originally designed as an intercontinental ballistic missile, lifted off the flat ground and steadily rose towards the sky above. The Space Age had begun.

Sputnik's launch in 1957 caught the United States by surprise, initiating what would come to be known as the Space Race. The seeds of that race, however, had been planted decades before by the development of military missile technology during World War II. The first guided long range ballistic missile, named the Vergeltungswaffe 2, or V-2,² was created by Nazi Germany during World War II. Germany used these rockets to attack European targets throughout the war. Following the Nazi's surrender in May 1945, the United States launched a covert program named "Project Paperclip" dedicated to bringing knowledge and scientists—many of whom carried affiliations to the Nazi Party—from Germany to the United States in order to more effectively fight the Japanese Empire in the Pacific. After Japan's surrender in September 1945, the program continued and shifted focus towards providing long-term technological advantages to the United States. As relations between the United States and USSR curdled, sentiment among government leaders began to favor allowing former Nazis such as Wernher von Braun to immigrate to and work in the United States, a "necessary evil" to

² https://airandspace.si.edu/stories/editorial/military-rockets-launched-space-age

counter the Soviets.³ Project Paperclip was one of multiple U.S. government initiatives to improve military missile technology in preparation for a potential nuclear arms race.

As American rocket development picked up after WWII, the Soviet Union increased their own rocket development and continued research to create a nuclear bomb. By 1949, both nations possessed nuclear warheads and the ability to deploy them on advanced intercontinental ballistic missiles. Nuclear buildup continued on both sides, and the year 1958 saw the greatest number of nuclear tests in history, over one hundred⁴. The Nuclear Arms race would come to a head with the Cuban Missile Crisis of 1962, a standoff between the United States and Soviet Union where the deployment of nuclear weapons was narrowly avoided by a flurry of diplomatic communications and compromises⁵. Following the Missile Crisis, the U.S. and USSR signed a Limited Test Ban treaty in 1963, restricting the use of nuclear weapons in Earth's atmosphere. Thus, nuclear conflict remained a massive issue during the Space Race, and especially in the years between 1958 and 1962.

As the U.S. and USSR competed to develop nuclear weapons after WWII, they initiated a new form of competition as well. In 1955, President Dwight D. Eisenhower initiated Project Vanguard with the hopes of putting an American satellite in space during the International Geophysical Year, a Cold War scientific collaboration project/competition between the United States and USSR which lasted from July 1957 to December 1958.⁶ Four days after Eisenhower

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https://www.pbs.org/wgbh/americanexperience/features/chasing-moon-wernher-von-braun-and-nazis/

⁴https://www.cfr.org/timeline/us-russia-nuclear-arms-control#:~:text=The%20nuclear%20arms%20race%20was,the %20risk%20of%20nuclear%20war.

⁵ https://history.state.gov/milestones/1961-1968/cuban-missile-crisis

⁶ https://www.nasa.gov/history/nasa-goddards-beginnings-in-project-vanguard/

announced his intention to launch a satellite, the Soviet Union announced their intention to do the same.

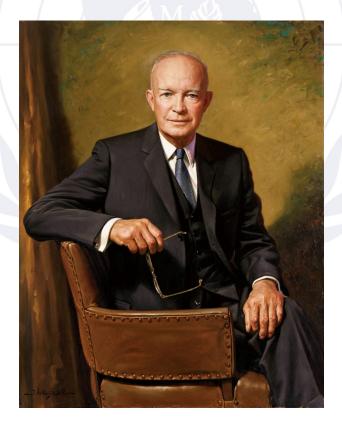
So it was that, in 1957, the Soviet Sputnik satellite became the first manmade object to reach space. Sputnik's launch, shrouded in many layers of military secrecy, took America by surprise and implied a frightening Soviet superiority in missile technology. American leaders rushed to respond. The Space Race had begun.

Though President Eisenhower publicly scoffed at the Soviet's accomplishment, he immediately began work to combat their apparent technological lead in space. Project Vanguard, operated by the U.S. Navy Research Laboratory, held its first highly publicized launch on December 6th, 1957. It quickly turned into a PR disaster as the rocket exploded inches off of the launchpad. Soon afterwards, Eisenhower established the President's Scientific Advisory Committee (PSAC) to research how to best form a space agency. In 1958, Eisenhower created the Advanced Research Projects Agency (ARPA), known today as the Defense Advanced Research Projects Agency (DARPA) under the Department of Defense to supervise American military efforts in space. Meanwhile, the Air Force sent a proposal to President Eisenhower asking him to allow the military to carry out man-in-space missions and construct a space defense system. Eisenhower, acting upon PSAC's recommendation, declined, and on April 2nd, 1958, wrote a letter to Congress requesting the formation of a civilian aerospace program, the National Aeronautics and Space Administration.⁸ Eisenhower made this momentous decision based on advice from PSAC and other advisors that a civilian space program would allow for more creativity and dynamism than a military-led effort. Underlying Eisenhower's reasoning was

⁷ Sheesol, *Mercury Rising*, 39-45

https://www.nasa.gov/history/65-years-ago-the-national-aeronautics-and-space-act-of-1958-creates-nasa/

a lively debate in the halls of Congress and the White House about what priorities America should pursue in space. While military leaders lobbied for weapons development, PSAC and other civilian politicians such as Senate Majority Leader and future President Lyndon B. Johnson argued that scientific and commercial development were more important. Ultimately, President Eisenhower sided with the civilian proposal and worked with Congress to create the National Aeronautics and Space Administration (NASA). Sixty one years after NASA's creation, the military received a space command through the United States Space Force, established in 2019. Had Eisenhower moved to assign America's space program to the military, today's status quo of space as a civilian realm with limited military activity may have given way to everything from orbital weapons platforms to nukes on the moon.



Pictured: President Dwight D. Eisenhower's efforts to establish a civilian space program played a crucial role in NASA's formation.

Chartering a Space Agency - Specialized GA Portion

The National Aeronautics and Space Administration did not come into being by chance, and it did not come into being easily. The 85th Congress, controlled by Democrats in both the House and Senate⁹, and President Eisenhower, a Republican, considered many organizational and jurisdictional structures for America's space program before settling on a civilian administration structure.

After Project Vanguard's initial failures many civilian scientists, including future MIT President James Killian, called upon Eisenhower to keep America's space program out of military hands. ¹⁰ They argued that military control would limit America's ability to advance scientifically in space, tying all future space ventures to an organization they viewed as bureaucratic, stuck in its ways, and unwilling to lend sufficient support to projects which didn't advance military objectives. The scientists further argued that a civilian-led space program would promote the kind of creative innovation necessary for success in space.

While scientists and military leaders lobbied President Eisenhower on how to structure a space program, similar debates were running through the halls of Congress. House Majority Leader John McCormack (D) proposed a space program run by a National Science Council whose members would be appointed by the President, while Senators John McClellan (D) and Hubert Humphrey (D) called for the creation of a Department of Science and Technology headed by a Cabinet-level secretary. Meanwhile, representatives connected to the military created

⁹ https://www.thecongressproject.com/85th-congress

¹⁰ https://www.nasa.gov/history/monograph10/nasabrth.html

proposals in Congress which put the entire space program under the military's ambit. In February 1958, James Killian convened a panel, known as the Purcell Panel, to assess organizational options for the proposed space agency. The panel suggested four comprehensive options: forming an entirely new government agency, assigning the project to the Atomic Energy Commission (AEC), giving the responsibility to the already-existing National Advisory Committee for Aeronautics (NACA), and assigning the project to the recently-created ARPA.

Possible Organizational Patterns.

To date four specific proposals have been made as to possible organizations to accomplish these ends. These include:

- 1. the formation of an entirely new agency of government;
- 2. assignment of the project to the AEC;
- 3. establishment of the NACA as the controlling agency, with assistance from National Science Foundation, National Academy of Sciences, the military services, etc.
- 4. assignment of the project to the Advanced Research Projects Agency of the Department of Defense (ARPA).

In the following paragraphs some of the advantages and disadvantages of the above suggestions will be briefly noted.

Pictured: The Purcell Panel proposed four organization structures for NASA.

Ultimately, President Eisenhower, acting on PSAC's recommendation, called for NASA to be created as a new civilian administration subsuming NACA. As an *administration*, NASA had more freedom and separation from the government than a government *agency* such as the Department of Defense. The NASA Act passed the House on June 2nd, 1958, the Senate on June 16th, and was signed into law by President Eisenhower on July 29th. Thomas Keith Glennan was appointed as NASA's first Administrator.

The NASA act further laid out a list of objectives for the new agency, including:

- (1) The expansion of human knowledge of phenomena in the atmosphere and space;
- (2) The improvement of the usefulness, performance, speed, safety, and efficiency of aeronautical and space vehicles;
- (3) The development and operation of vehicles capable of carrying instruments, equipment, supplies and living organisms through space;
- (4) The establishment of long-range studies of the potential benefits to be gained from, the opportunities for, and the problems involved in the utilization of aeronautical and space activities for peaceful and scientific purposes.
- (5) The preservation of the role of the United States as a leader in aeronautical and space science and technology and in the application thereof to the conduct of peaceful activities within and outside the atmosphere.
- (6) The making available to agencies directly concerned with national defenses of discoveries that have military value or significance, and the furnishing by such agencies, to the civilian agency established to direct and control nonmilitary aeronautical and space activities, of information as to discoveries which have value or significance to that agency;
- (7) Cooperation by the United States with other nations and groups of nations in work done pursuant to this Act and in the peaceful application of the results, thereof; and
- (8) The most effective utilization of the scientific and engineering resources of the United States, with close cooperation among all interested agencies of the United States in order to avoid unnecessary duplication of effort, facilities, and equipment.¹¹

In 1958, NASA's organizational structure was far from clear. America's space program could have been assigned to military branches such as the Department of Defense, put under direct executive control through a cabinet agency, or even been incorporated into the Atomic Energy Commission. Moreover, NASA's modern goals of pursuing knowledge, advancing science, and improving technology were yet unformed.

During the specialized GA portion of the committee, delegates should create a resolution organizing a space program, defining its legal structure, and listing guiding principles for the program going forward. Delegates can and should seek out creative solutions when considering how to organize America's space program. For example, delegates could decide to fund a private program outside of the government entirely. During the drafting process, delegates should be

¹¹ https://www.nasa.gov/history/national-aeronautics-and-space-act-of-1958-unamended/

mindful of relevant political questions, structuring resolutions which can pass through Congress and earn President Eisenhower's signature. Delegates can and should raise political questions themselves to support their ideas and challenge others. For example, if a delegate gives a speech about the importance of staying ahead of the Soviet Union, that might motivate Congress to start talking about ways to stay ahead of the Soviet Union. Delegates could use creativity to come up with a better solution than just one or the other.

As delegates work to create a space program, they should be mindful of the geopolitical and social landscape of the late 1950's. U.S. foreign policy during this largely embraced the Truman Doctrine, which stated that the United States would provide assistance to countries facing communist influences in order to prevent the spread of communism¹². Additionally, the nuclear arms race was at full swing, with both the U.S. and USSR racing to amass nuclear weapons while holding each other back from nuclear war through the threat of Mutually Assured Destruction (MAD)¹³. By the beginning of the 1960's the counterculture movement had begun to spread in the United States, upending traditional social norms¹⁴. Delegates may seek to shape America's space program in accordance with these ideas or others during the Specialized GA portion of the committee, thereby shaping the discussion during the proceeding Crisis portion.

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 $^{^{12}}https://www.studentsofhistory.com/containment-the-truman-policy\#:\sim:text=The\%20Truman\%20Doctrine\%2C\%20 also\%20known, prevent\%20the\%20expansion\%20of\%20communism.$

¹³ https://www.britannica.com/topic/mutual-assured-destruction

¹⁴ https://www.britannica.com/topic/1960s-counterculture

Questions to Consider for Specialized GA Portion

- 1. How and under what organization structure should America's space program be created?
- 2. How should the program be funded? Should this brand-new program receive a lot of funding, or should it be forced to stay economical?
- 3. Should America's space program pursue both scientific and military objectives?
- 4. Which is more important: freedom to innovate or direct accountability through oversight?

 Can, and should, America's space program achieve both?
- 5. What steps can the committee take to pass resolutions through Congress and secure President Eisenhower's approval?
- 6. Should any charter include positions of leadership?
 - a. Who will fill those positions once the program is established?
- 7. What objectives should the United States set for the exploration of space, and how can the space program be structured to achieve them?
- 8. How much oversight should Congress and the President have over the space program?

The Space Race - Crisis Portion



Apollo 7, America's first manned mission to the Moon, lifts off¹⁵.

NASA was formed with the objective of sending Americans into space, and it immediately set to work doing just that. In 1958, a newborn NASA launched its first spaceflight program, Project Mercury, with three primary objectives:

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¹⁵ https://science.nasa.gov/resource/apollo-7-launches-on-october-11-1968/

- Place a manned spacecraft in orbital flight around the earth.
- Investigate man's performance capabilities and his ability to function in the environment of space.
- Recover the man and the spacecraft safely. 16

NASA further specified that Project Mercury should, wherever possible, make use of existing technologies and follow the simplest design approaches possible. However, keeping costs low and procedures simple was easier said than done. NASA immediately started work on transforming ballistic missiles such as the redstone rocket family into space worthy vehicles.¹⁷ Meanwhile, NASA also began to search for a group of men to pilot the developing spacecraft.¹⁸ Early on, President Eisenhower decided that these pilots, called "astronauts" from the prefix "astro-" meaning star and suffix "-naut" meaning voyager, would be selected from among the military service branches. From a beginning list of five hundred and eight, only one hundred and ten men were found to possess the minimum level of physical and mental fitness necessary for the Mercury Program. As candidates were further winnowed down, the standards grew more and more exacting. Candidates were required to have perfect vision, good hearing, lack exposure to radiation, and possess no heart, lung, or blood issues, however minor. Those candidates who made it through physical screening were then subjected to a series of excruciating physical, mental, social, and psychological challenges. 19 On April 9th, 1959, the "Mercury Seven" were announced: Scott Carpenter, Gordon Cooper, John Glenn, Gus Grissom, Wally Schirra, Alan

¹⁶ https://www.nasa.gov/missions/project-mercury/project-mercury-overview-objectives-and-guidelines/

¹⁷ http://www.astronautix.com/r/redstone.html

¹⁸ https://www.womenshistorv.org/exhibits/women-nasa

¹⁹ https://www.nasa.gov/history/65-years-ago-nasa-selects-americas-first-astronauts/

Shepard, and Deke Slayton. Two years later, on April 12, 1961, with the Mercury Program in full swing preparing to send an American to space, the Soviet Union broke their normal information blackout to make an announcement to the world: Yuri Gagarin, a soviet cosmonaut, had become the first human being to travel in space. During the committee, delegates should consider who to send into space, as well as whether or not humans are even the best option to pilot rockets...

Amidst the backdrop of the Cold War, the United States and Union of Soviet Socialist Republics fought for dominance in all arenas, from military to economic to cultural control. As technology developed, both the U.S. and USSR looked upward and began competing to study, reach, and control the domain of space. In order to do so, both rushed to develop space travel technologies as fast as possible. Hence the name "Space Race." As the U.S. and USSR reached stalemates in the arenas of nuclear arms buildup and military influence, the Space Race grew into the pre-eminent theatre of conflict between the world's two superpowers. Allies and enemies of America and the USSR, as well as non-aligned countries, watched to see who would come out on top, knowing that the result of the Space Race would significantly impact geopolitics. Thus, delegates should consider their decisions about America's space program will likely affect world politics, possibly in unpredictable ways. Conversely, delegates might think about how world politics could be manipulated to achieve their goals in committee.

The USSR's 1957 launch of Sputnik 1 as the first satellite in space, followed by their 1961 achievement of sending the first human being in history into space, cast doubt upon the United States's military and technological prowess. In Western Europe, the reaction was one of surprise and disappointment. Other nations touted the beginning of the end for surface military installations, such as American bomber bases. On the whole, the world more than ever expected

the Soviet Union to become the premiere technological power.²⁰ At the time, both capitalism and communism were powerful economic ideologies. Throughout the Cold War, the United States and Soviet Union each attempted to prove to the world and to their own citizens that their economic ideology was superior through victories over their adversary, portrayed as victories over capitalism or victories over communism (the nature of this messaging differed between the United States, a democracy, and the USSR, where media was largely controlled by the state). In early 1960's America, fear and hatred of communism were widespread. The Soviet Union's early successes in space, however, raised doubts across the world and even among American citizens that capitalism was the future. Questions of economic ideology will be present throughout the committee, and it is up to delegates to defend capitalism, capitulate to communism, or invent something new entirely...

"I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the earth," said President John F. Kennedy on May 25th 1961, making a commitment the likes of which humanity had never before seen. In less than eight years, Kennedy promised, an American would walk on the surface of the Moon. Thus began the Apollo Program.

After Kennedy's speech, various methods of reaching the Moon were considered. One, called direct ascent, involved taking off from Earth, landing on the Moon, and returning to Earth all in one trip. Another, called Earth orbit rendezvous, involved sending a manned rocket to orbit around the earth, then sending another rocket to dock with the first and transfer enough fuel to go to the Moon and back. Ultimately, the plan selected was called lunar orbit rendezvous. Lunar

²⁰ Sheesol, Mercury Rising, 41

²¹https://www.nasa.gov/history/the-decision-to-go-to-the-moon/

rendezvous involved a massive Saturn V rocket carrying a three part spacecraft out of Earth's atmosphere with enough momentum to launch it towards the Moon in what is called a lunar trajectory. Once the spacecraft reached lunar orbit, its Lunar Module detached and carried two astronauts out of a three astronaut crew to the Moon's surface, and later back up to the awaiting spacecraft²². Although this is not a scientific committee, delegates may include in their resolutions technical proposals for how to achieve their goals in an effective and affordable manner. These proposals need not be scientifically airtight, but should pass muster with members of the United States Congress. Thus, a middle-school level familiarity with space and rocketry concepts should suffice.

The first Apollo mission, Apollo 1, was meant to serve as a low Earth orbit test of the Apollo spacecraft.²³ However, a spontaneous fire during an unfueled preflight test, later determined to be caused by electrical wires, tragically killed all three Apollo 1 astronauts.²⁴ The accident highlighted the dangerous nature of space travel, showing that fatal accidents can occur even when launches are meticulously planned. Apollo 4, Apollo 5, and Apollo 6 (there were no Apollo 2 or Apollo 3 missions) were all uncrewed and tested various components of the lunar mission. While designing missions to space, delegates should consider the relative importance of human safety as compared to costs. Dangerous flights will be cheaper, but are they worth the risk?

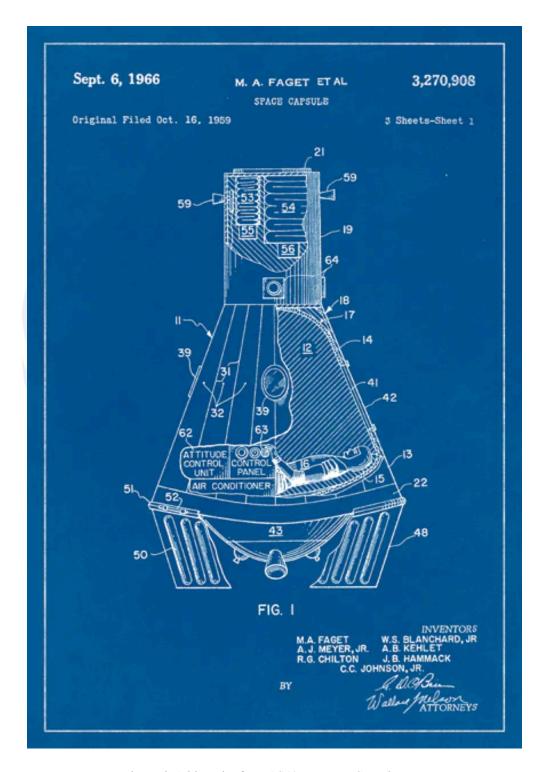
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²² https://www.britannica.com/science/Apollo-space-program

²³https://www.nasa.gov/humans-in-space/leo-economy-frequently-asked-questions/#:~:text=Low%20Earth%20orbit %20(LEO)%20encompasses,communication%2C%20observation%2C%20and%20resupply.

²⁴ https://www.britannica.com/biography/Yuri-Gagarin

On July 20, 1969, Astronaut Neil Armstrong became the first human ever to step foot on the surface of the Moon, saying eleven words that would instantly become inscribed in history:



Pictured: A blueprint for NASA's Mercury Capsule

That's one small step for man, one giant leap for mankind."²⁵ Apollo 7 had fulfilled President Kennedy's promise to put a man on the Moon before the end of the 1960s. Over the course of the next four years, five more Apollo missions would land men on the Moon, concluding with Apollo 17 in 1972.

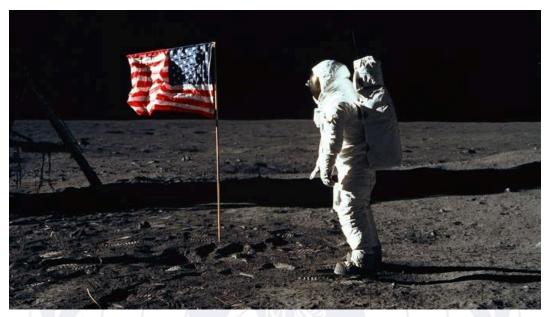
The Soviet Union never landed a man on the moon, opting instead to develop their capabilities in low-Earth-orbit and build humanity's first space stations. In the 1970s, a policy of détente, meaning an easing of hostilities, began to develop between the United States and Soviet Unions. The Space Race officially ended on July 15, 1975, when a Soviet Soyuz Capsule docked with an American Apollo Capsule in orbit around the Earth and American Astronauts joined Soviet Cosmonauts to shake hands and conduct joint scientific experiments.

American cooperation with the Soviet Union (and later with the Russian Federation) formed the backbone of the International Space Station Project, the most complex object ever constructed in space. Thus, the Space Race ended not with a bang but with a handshake. Over twenty years of setbacks, struggle, and strife, the American Space Program and its Soviet opponent launched humanity into the Space Age.

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²⁵ https://airandspace.si.edu/stories/editorial/one-small-step-man-or-man

The Crisis



Pictured: Astronaut Neil Armstrong walks on the Moon (1969)²⁶

On October 4, 1957, The Soviet Union captured the world's attention with their launch of the *Sputnik 1* satellite. In spite of President Eisenhower's declaration that the launch "doesn't raise my apprehensions, not one iota," he quickly understood the importance of developing a space program to counter the USSR.²⁷

But a program is not complete without a goal. Once the program has been established and the mission statement has been set, how will you, delegates, go about executing its principles? The Soviets have already beaten the United States into orbit. Will we continue full speed ahead with our satellite tests, or will we try to take a living organism past our atmosphere? And what after that? Some suggest sending probes to the furthest reaches of our solar system, others want men to plant flags on surrounding celestial bodies.

²⁶ https://www.history.com/articles/moon-landing-1969

²⁷ Sheesol, *Mercury Rising*, 39

This new program must balance the ideal of exploration with the limitations of a budget; it must toe the line between expensive publicized achievements and practical applications. The targets of the program—whether it be a lunar landing or orbital weapons platforms or attempting first contact with extraterrestrials—remain for you to decide. Will you try to advance your own projects and craft individual empires, or will you pool the agency's resources into one large gamble? Good luck, and ad astra...



"Earthrise," captured by Apollo astronauts on the Moon in 1968²⁸.

²⁸ https://www.bbc.com/future/article/20230511-earthrise-the-photo-that-sparked-an-environmental-movement

Questions to Consider

- How can the structure developed earlier in committee be turned into an effective space program?
- 2. What objectives will America's space program seek to achieve?
- 3. Is it better to pursue ambitious targets like the Moon and Mars, or play it safe?
- 4. How will America's space program advance National Security objectives during the Cold War? Should it do so?
- 5. In what ways do space programs secure public approval and government funding?
- 6. Are safety standards important? Will America's space program consider some deaths acceptable, or is every life valuable?
- 7. Will tests be made public and viewed by the whole country? Or will the secretive model of the Soviet Union be adopted to protect against public backlash?
- 8. What kind of timeline should the space program establish, and how will it ensure that such a timeline is met?
- 9. Is collaboration with other countries possible and advantageous? Could America collaborate with the Soviet Union? Would doing so be safe?
- 10. To what extent is public support for the economic ideologies of capitalism and communism tied to national victories in the United States and Soviet Union?

Character Dossier

Katherine Johnson - One of NASA's "human computers," she was one of a few African-American women who ran calculations by hand for NASA and its predecessor, NACA. She famously calculated the trajectory and launch window for Alan Shepard's Mercury Mission, and John Glenn would not fly until Johnson had checked the digital computer's calculations for his flights.^{29,30}

Dorothy Vaughan - Similarly to Katherine Johnson, she began her career as a human computer at NACA, where she eventually became head of the segregated West Area Computing Unit.³¹ When NASA transitioned to digital computers, she taught both herself and other members of her unit computing languages, becoming indispensable to programs such as the Scout Launch Vehicle program, which carried some of America's first satellites.³²

Mary W. Jackson - A NASA engineer, she specialized in running tests of models in the wind tunnel. She researched how air formed and built up around planes, coauthoring a number of reports. Discrimination prevented her from breaking into higher-level management but made it her mission to fix this by taking a demotion to become Langley's Federal Women's Program Manager in 1979.³³

Henry Kissinger (R) - An American diplomat, Kissinger would become a key figure in

American foreign policy for nearly a decade during the Cold War. He would serve as both

National Security Advisor and later Secretary of State to President Nixon and President Ford. In

²⁹ https://www.mentalfloss.com/article/71576/black-female-mathematicians-who-sent-astronauts-space

https://www.nasa.gov/centers-and-facilities/langlev/katherine-johnson-the-girl-who-loved-to-count/

³¹ https://www.nasa.gov/people/dorothy-vaughan/

³² https://blog.sciencemuseum.org.uk/nasas-overlooked-star/

https://www.nasa.gov/people/mary-w-jackson-biography/

1958, Kissinger was serving as Director of Harvard's Defense Studies Program as well as a consultant to several companies and government agencies, including the RAND Corporation and Department of State. Pioneered the political theory of Realpolitik, suggesting that politics should be conducted around practical rather than ideological concerns.

Thomas Keith Glennan - Glennan became the first Administrator of NASA upon its establishment in 1958. Before that, he was a member of the Atomic Energy Commission. Additionally, he was the chair of the board of the Institute for Defense Analysis and served on the board of the National Science Foundation.³⁴

Thomas D. White - Chief of Staff of the United States Air Force from 1957-1961. During this period, the Air Force offered to take responsibility for America's space program, but was rejected by President Eisenhower in favor of a civilian program. White was awarded the General William E. Mitchell Memorial Award in 1963 for "outstanding individual contribution to aviation progress."

Jimmy Doolittle - Having had an interest in rocketry since meeting Robert H. Goddard in the 1930s, Jimmy Doolittle, an eventual air force general, spent much of his military career looking into the applications of rockets.³⁵ In 1956, he was appointed the chairman of NACA and served on the NACA Special Committee on Space Technology in 1958, assisting in NACA's transformation into NASA. Doolittle's post-military involvement in NACA is characteristic of the military's involvement with and connection to America's space program.

Wernher von Braun - A rocket scientist, Wernher Von Braun developed missiles for the Nazis during World War II before being brought to America as part of Project Paperclip. Von Braun

³⁴ https://www.nasa.gov/people/t-keith-glennan/

³⁵ Doolittle, I Could Never Be So Lucky Again

became an important part of NASA, helping design the Redstone and Jupiter rockets which played an integral role in Project Mercury.

Hugh I. Dryden - Served as the Director of NACA from 1947 until the establishment of NASA. At NASA, he served as the Deputy Administrator. Before NACA, he was the Associate Director of the National Bureau of Standards since 1918. During the Second World War, he worked in several groups that researched aerospace applications for the armed forces. This included being the head of the project that produced the nation's first combat-successful guided missile.³⁶

Robert R. Gilruth- Served as a top engineer in NACA before helping to establish NASA in 1958. He directed the Space Task Group at Langley, whose purpose was to put a man in space before the Soviet Union. He contributed his engineering and leadership prowess to Project Mercury and served as the director of the Manned Spaceflight Center (MSC) from 1969-1972, during which time the Apollo Program was conducted from that location.

John Foster Dulles (R)- Secretary of State under President Eisenhower. He advanced Truman's containment doctrine, which stated that peace could be achieved only by stopping the spread of communism. Dulles worked closely with the CIA, which was run by his brother Allen Dulles, throughout his tenure.

Allen W. Dulles - Director of the CIA under President Eisenhower and brother of Secretary of State John Foster Dulles, Allen Dulles was the first civilian director of the CIA and greatly expanded its intelligence operations and capacities.

Lyndon B. Johnson (D)- Senate Majority Leader in 1958 open to bipartisan cooperation.

Johnson was an extremely effective politician known for "The Johnson Treatment," a potent,

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³⁶ https://www.nasa.gov/people/hugh-l-dryden/

in-your-face assault of emotion and information which he imposed on fellow politicians to persuasive effect. Johnson served as Vice-President to John F. Kennedy and became President in 1963 after Kennedy's assasination, going on to win re-election in 1964.

Samuel Rayburn (D)- Speaker of the House of Representatives in 1958, his third nonconsecutive term in that position. Held a close working relationship with Senator Lyndon Johnson (D) as well as a productive rapport with President Eisenhower (R). Known for his personal integrity and refusal to accept any money which could promote a conflict of interest, an unheard of practice at the time.

John F. Kennedy (D)- Senator from Massachusetts in 1958. Member of the wealthy Kennedy family, who financed his political campaigns. Began campaigning in 1958 for the 1960 presidential election, which he would go on to win against Richard Nixon, becoming the 35th President of the United States.

William Knowland (R) - Senate Minority Leader in 1958. Knowland had a strong interest in foreign policy and helped determine much of America's foreign policy during the Cold War. Knowland criticized communist China and its leader, Mao Zedong. He was more conservative than President Eisenhower (R) and viewed some of Eisenhower's policies as too liberal.

J. Edgar Hoover - Director of the FBI from 1924 to 1972. Enormously increased the FBI's power and influence through legitimate and illicit means. A gifted political actor, Hoover understood how to play politics in order to get what he wanted. He is considered one of the most powerful government officials in American history.

Arleigh Burke- United States Navy Chief of Operations in 1958. Served in World War II and went on to play an integral role in the development of nuclear submarines during the Cold War. Served and advised the Eisenhower and Kennedy administrations.

Nathan F. Twinning - Chairman of the Joint Chiefs of Staff in 1958. Launched America's first Intercontinental ballistic missile (ICBM) in 1959, paving the way for long-range deployment of nuclear warheads. Oversaw the expansion of land and submarine based missiles as a deterrent against a First Strike from the Soviet Union.

Maxwell D. Taylor - Army Chief of Staff in 1958. Taylor frequently criticized Einsehower's military policy, arguing that America's hyperfocus on the nuclear arms race neglected conventional forces. Taylor retired from service in 1959 and authored *The Uncertain Trumpet*, a criticism of America's defense policy at the time.

Neil H. McElroy - Secretary of Defense in 1958. After the launch of Sputnik 1, worked to allay Congressional concerns over the gap in missile technology between the United States and Soviet Union, concerns which played a large role in pushing Congress to authorize the creation of a new space agency.

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