

FCC

Background Guide

VANCOUVER YOUTH MODEL UNITED NATIONS 2021



Directors: Pradyun Chebolu, Maya Mior

Chair: Jeffery Liu, Richard Min

Assistant Director: Joseph Yeh, Justin Hua

Dear Delegates,

Welcome to the Fictional Crisis Committee at VYMUN 2021! Our names are Maya Mior and Prad Chebolu, and we are thrilled to have the opportunity to serve as your co-directors. Together with our magnificent assistant directors, Joseph Yeh and Justin Hua, and incredible chairs, Jeffrey Liu and Richard Min, we have worked tirelessly to construct an action-packed and comprehensive committee experience for you all.

Over the years, our time on various committees has given us the invaluable opportunity to grow in ability in public speaking, debate, and diplomacy. Model United Nations has taught us the value of brevity, the complexities of multifaceted issues, and the tension of rivalries. At the same time, it has shown the importance of alliances, and the valuable connections that remain long after the conclusion of the conference. We eagerly hope that your experience at VYMUN 2021 will offer each of you the opportunity to grow in your skills, and form lasting friendships with your fellow delegates.

As members of the Martian Intergalactic Council, it is your responsibility to guide the world to its next frontier: Mars. Representing some of the Earth's most significant powers, it is within your authority to take whatever steps you deem necessary to eliminate conflict, form alliances, and pursue your individual interests. We encourage you to be courageous, and think outside the box whenever possible—the meek may inherit the Earth, but this new land belongs to the bold. Embrace your creativity and be prepared to fight for the future of humanity.

On behalf of the entire FCC team, we wish you the best of luck in researching and preparing for the committee. Please do not hesitate to contact us at *fcc@vymun.com* if you have any questions or concerns about the topic, the conference, or Model United Nations. We anticipate a weekend of thrilling discourse, bitter rivalries, and hopefully, a successful colonization of the planet Mars. We look forward to meeting you all.

Best,

Maya Mior and Prad Chebolu Co-Directors FCC | VYMUN 2020

Table of Contents

Overview	3
Timeline	4
Historical Analysis	5
Scientific History	5
Political History	6
Past Action	7
Current Situation	8
Possible Solutions	10
Character Overviews	11
Global Leaders	11
Entrepreneurs	12
Administrators	13
Discussion Questions	14
Other Aspects to Consider	14
Suggested Avenues of Research	14
Committee Toolbox	15
Sources Cited	16

Name of topic 1

Overview

The year is 2045, and the stability of Earth is worsening with each passing day. Our world is considered uninhabitable from the year 2060. Global warming and climate change continue to have a severe impact on the quality of life of citizens worldwide, and the time has come to colonize another planet. The efforts and ambitions of innovators and entrepreneurs have proven themselves fruitful, gaining support from major corporations and political figures. Now, global leaders and major political powers have joined forces to form a committee, the Martian Intergalactic Council, which aims to successfully colonize Mars within the next decade. This committee consists of some of Earth's most powerful minds, such as Elon Musk, Jeff Bezos, Richard Branson, who have developed their space equipment for the Mars expedition.

Over the years, various Mars explorations have been conducted, but no human trials have been successful. The first is set to take place on the 22nd of April, 2053, with the spacecraft carrying 2,000 individuals of mixed sex. However, conflict has recently arisen within the Council, as a decision has not yet been made in regards to which organization should have the privilege of carrying out the trial. Potential possibilities include SpaceX, Blue Origin, Virgin, NASA, or other governmental agencies like CNSA.

In addition to this, citizens are becoming worried about their access to resources, and the potential for corruption. This concern comes as a result of public rumours about controversy and conflict within the Council, and in order to ensure as much public support for the Mars colonization endeavour as possible, Council members will need to make use of all possible means to allay the concerns of the public. A new government must also be constructed on Mars, one that ensures that the new Mars colony can grow and thrive with minimal conflict. In order to achieve this goal, members of the Council must work together to determine the best method of governance, and resolve the interpersonal and intergovernmental power struggles currently at play within the Council.

As members of the Martian Intergalactic Council, you must lead Earth boldly forward to this new frontier, taking advantage of resources, opportunities, and alliances to overcome adversity and conflict. The fate of humanity lies in your hands.

Timeline

July 14-15, 1965 — NASA's *Mariner 4* performs the first successful flyby of the planet Mars, observing its harsh conditions from the closest perspective yet.

September 29, 1977 — The first sustained space habitat, the Salyut 6, is launched into space by the Soviet Union establishing precedents and techniques later used on the I.S.S. (International Space Station).

November 7, 1996-September 12, 1997 — NASA's *Mars Global Surveyor* is launched and enters orbit. It returns substantial amounts of data about Mars, including the presence of an aquifer, indicating a probability that liquid groundwater periodically surfaces.

May 6, 2002 — Elon Musk founds the private aerospace company, SPACEX, with the goal of reducing space transportation costs in order to colonize Mars.

July 13, 2019 — French President Emmanuel Macron authorizes the creation of the French Space Force, investing €3.6 billion into space defense and the Space Force.

August 2, 2022-May 28, 2023 — Russia's *Okhotnik* mission is launched, and confirms the presence of both fertile soil and liquid groundwater on Mars.

September 29, 2023 — The Kremlin publishes a document outlining the findings from collected water samples, the most notable of which is that the water can be easily treated to such a point that it becomes entirely potable.

June 17, 2024-March 22, 2025 — China and the Kremlin launch a series of joint missions, the *Rano-Shìxiàn* flights, with the goal of colonizing Mars. The missions are initially intended to remain classified, but American satellites note the movement and discover their intentions.

January 12, 2025 — The American, Canadian, and French governments partner with the European Space Agency to launch a rival mission (*the Surmonter-Universal*) against the *Rano-Shìxiàn* flights. Due to rushed preparations and limited supplies and knowledge of the terrain, both sides' missions are declared primarily failures. The astronauts on board see negative effects from malnutrition and two die before re-entry to Earth.

August 10, 2025 — The United Nations declares a 10-year temporary hold on Mars travel or colonization missions. Tensions between the *Rano-Shìxiàn* and *Surmonter-Universal* alliances remain.

November 7, 2035 — NASA's *Artemis* program lands on Mars after being launched on April 7th of 2035, a controversial first flight since the failures of ten years prior.

February 3, 2036 — Astronaut Alex Singh of the *Artemis* mission is stranded. Under duress, she begins to make use of liquid groundwater on Mars to grow and maintain crops, confirming the possibility for sustained life on Mars.

August 12, 2045 — In an effort to further explore the potential for Mars colonization, the Martian Intergalactic Council is founded.

February 15, 2046 — The Martian Intergalactic Council currently comprises its founders, Jeff Bezos, Elon Musk, Richard Branson and Administrator of NASA, Bill Nelson.

February 17, 2046 — The first Council meeting is held. The meeting is being run by NASA and other international representatives are present, most notably, Vladimir Putin and Emmanuel Macron. This meeting discusses the date of the first flight as well as financial commitments from each individual.

January 15, 2047 — The second Council meeting takes place. This meeting is to determine whether there is a chance of Earth surviving. Climate advocate Greta Thunberg is invited.

April 22, 2048 — Conflict has arisen as the first trial flight to Mars is set to take place on this day. The first 2, 000 passengers must pay an initial fee of \$100,000 USD to board the spaceship to Mars, providing significant revenue to the corporations. However, a decision has not been made on which organization has the privilege of carrying out this task. Potential options include SpaceX, Blue Origin, Virgin, NASA, or other governmental agencies like the China National Space Administration (CNSA).

November 19, 2050 — Present day. The Council is conducting its third meeting, arguably the most important one to date. The allocation of resources is being decided, though corruption and partiality slow deliberations. According to the Council, the amount of land and initial food and water supplies will be divided based on the contribution of each nation in the development of the International Space Station.

Historical Analysis

Scientific History (2020-2050)

In 2021, the Intergovernmental Panel on Climate Change determined that global surface temperature would continue to increase until at least the mid-century under all potential emissions scenarios. Further, it reached the conclusion that ice sheet collapse, abrupt ocean circulation changes, some compound extreme events and substantial warming would exist under nearly all possible scenarios. Except in a situation where Earth manages to reach net-zero emissions within the span of half a decade, the planet would be wracked by natural disasters of increasing severity, and climate change would reach a point at which it becomes irreversible in any relevant human context.

Towards the end of that year, global leaders gathered at the Cop26 summit in Glasgow, where several nations expressed their willingness to reach national net-zero emissions. However, China and the

Russian Federation, collectively responsible for 35% of global carbon emissions, began to insist on the use of alternative solutions that would not involve any national cap on carbon emissions. Conflict broke out between leaders of the two nations and the others present at the conference (in particular the United States), and representatives from China and the Russian Federation were suspended from the conference.

While smaller nations were able to largely negate their carbon emissions, the United States faced large political polarization on the issue and was unable to deliver on efforts to reach net-zero. China and the Russian Federation ultimately increased their combined emissions, and within two years, the Intergovernmental Panel on Climate Change was disbanded and Cop summits were discontinued. Several smaller nations faced substantial natural disasters as a result of increased global temperatures, and ultimately collapsed, while larger nations turned their focus to alternative methods of survival for the human population.

Russia was the first country to actively explore the potential for interplanetary colonization, launching the *Okhotnik* mission in 2023 to explore the conditions on several selected planets. Positive confirmations for fertile soil and potable liquid groundwater were returned from both Mars and Venus, though only Mars was explored further as more pre-existing knowledge of the planet existed. After the ten-year suspension on forays to Mars was elapsed, NASA's *Artemis* mission, launched in 2035, unintentionally confirmed the possibility of sustained life on Mars.

The Council was founded as a result of the newfound knowledge of the habitability of Mars, and commenced efforts to sustain large-scale exoplanetary colonization. In its second meeting, Greta Thunberg, alongside the few other remaining climate activists advocating for continuing efforts to halt climate change on Earth were invited to speak on the possibility of Earth's survival. Planetary scientists were also invited, though they spoke against the largely optimistic tones taken by activists and ultimately concluded that Earth would no longer feasibly be habitable.

Political History (2020-2050)

An already polarizing issue, the findings of the 6th report by the Intergovernmental Panel on Climate Change (IPCC) served to further divide major nations on the best course of action. While the United States committed to follow through on Biden's promise to lower net carbon emissions by fifty percent, Russia and China instead turned their focus to exoplanetary endeavours, and as a result caused the largest recorded annual emissions in either nation's history. This decision proved highly controversial, and nationalistic sentiments (already exacerbated by tension surrounding Earth's climate future) resulted in massive rifts being formed between most global nations and China and Russia.

The highly classified 2024-2025 launch of the *Rano-Shìxiàn* missions formalized the alliance between Russia and China, largely merging their space exploration industries and resulting in the largest single exoplanetary exploration budget in history. However, the divide in methodology between the *Rano-Shìxiàn* alliance and most other significant nations was the largest influencing factor in the formation of the rival alliance, the *Surmonter-Universal* (made up of American, Canadian, and French

governments, alongside the European Space Agency). The *Surmonter-Universal* comprised nations that held a strong opposition to the actions taken by the *Rano-Shìxiàn* alliance, and whose primary intention was to ensure accessibility and public awareness of potential long-term missions to Mars.

During these times of multinational polarization, individual entrepreneurs and companies continued to privately work towards colonization missions, with the likes of SpaceX, Blue Origin, Sierra Nevada, and Virgin Galactic performing a veritable space race in an effort to secure the coveted title of the first name to colonize the red planet. While they faced substantial criticism from the general public for their focus on colonization rather than charitable assistance to locations affected by destructive natural byproducts of climate change (as their combined wealth comprised far more than most nations' governmental budget), their efforts secured the attention of both the *Rano-Shìxiàn* and *Surmonter-Universal* alliances, who found the entrepreneur's vast budgets and limited restrictions extremely appealing.

While 2045 brought about the formation of a supposedly united Council, alliance rivalries continued to simmer just below the surface, fueled by ideological differences and desperate attempts to form partnerships with the private entrepreneurial corporations also involved in the Council. The first corporation to form an alliance was Sierra Nevada, who secured a substantial deal with the *Rano-Shìxiàn*. When it was discovered that the Russian government had misused contributions from Sierra Nevada, the corporation withdrew from the alliance and left the Council with hostile relations in its midst, leaving the remaining entrepreneurial organizations unwilling to undergo any governmental partnerships.

As the knowledge of Earth's rapidly approaching inhabitability came to the awareness of the Council, conflict was exacerbated, now over which Council member nation/corporation/organization would be granted the opportunity to transport the first fleet of citizens to Mars, and how anti-colonization movements (founded in smaller nations, primarily those impacted by climate change-induced natural disasters, but now spread to radicals in more significant countries) are to be resolved.

Past Action

Mars Reconnaissance Orbiter-Discovery of Water in Mars

NASA launched the Mars Reconnaissance Orbiter on August 12, 2005 and this spacecraft arrived at Mars on March 10, 2006. The aim of this mission was to study the geology and climate of Mars, and this probe was successful in doing so. Using an imaging spectrometer on the orbiter, researchers detected signatures of hydrated minerals on slopes of the Red Planet¹. These streaks of water appear in several locations where temperatures are above minus 23 degrees Celsius, and are not found in colder regions². This is extremely important to the settlement in our situation as water is found in warmer places, which is where camps must be established.

_

¹ https://www.nasa.gov/press-release/nasa-confirms-evidence-that-liquid-water-flows-on-today-s-mars

² Ibid.

Establishment of the Martian Intergalactic Council

By 2025, the condition of Earth has worsened to the point where humanity cannot survive. As a result, the Martian Intergalactic Council was founded. This Council is composed of officials and individuals of high authorities from corporations and organizations. The Council has officially declared Earth to be uninhabitable past the year 2040 and has decided as a result that from 2035, Mars will be colonized. Action had already been taken, with each nation being allocated land based on their contributions to the development of the International Space Station. This was controversial and the issue had not been resolved.

SpaceX Missions

SpaceX was founded with the intention of making an affordable spaceflight industry. SpaceX founder and CEO, Elon Musk, stressed that the primary reason to launch SpaceX was to transform humanity into a multi planet species.³ As Elon Musk famously said, "I've said I want to die on Mars, just not on impact." SpaceX has developed their Starship spacecraft, which was initially announced in 2016.⁵ The aim of this project was to launch this spacecraft for deep-space missions to the moon and Mars. SpaceX has planned on utilizing this vehicle for missions to the moon, starting in 2022 as well as point-to-point trips around the world.⁶ The corporation has developed Starship with the aim of launching to Mars in 2024. However, SpaceX's mission revolved around the transportation of people or citizens. The company was not interested in building a base at Mars. Its goal was to ferry cargo and humans to and from Mars, facilitating the development of other authorities' bases.⁷ The Starship prototype travelled to a target altitude of 15 kilometres as of December 2020.⁸

2035 Ares Program

NASA launched their Ares program with six astronauts embarking on their journey to Mars. However, during departure, they were struck by a fierce dust storm, injuring astronaut and botanist Mark Watney, leaving him stranded on the Red Planet. During his time on Mars, Watney discovered methods of survival, such as by growing potatoes for food. He was able to do this by fertilizing the soil with his faeces and planting cuttings of the plant which he brought with him since he was a botanist. More specifically, Mark used potatoes that still had their eyes and planted them in the Martian soil. In addition to this, Watney used the rocket fuel and through a chemical process he was able to convert it to pure water. Mark Watney used hydrazine, which is found in rocket fuel, and passed through a catalyst. After doing so, the substance was decomposed into nitrogen gas, hydrogen gas and ammonia. He then used proportionate amounts of his oxygen supply and after burning it with hydrogen, he successfully produced water.

³ https://www.space.com/spacex-launch-astronauts-mars-2024

⁴ https://www.vanityfair.com/news/tech/2013/03/elon-musk-die-mars

⁵ https://www.space.com/spacex-launch-astronauts-mars-2024

⁶ https://www.nasa.gov/press-release/nasa-confirms-evidence-that-liquid-water-flows-on-today-s-mars

⁷ Ibid.

⁸ https://www.space.com/spacex-launch-astronauts-mars-2024

Current Situation

Citizen Transport to Mars

Corporations and agencies are in severe conflict as they are undecided as to who shall transport the first group of passengers. The cost for travel is hefty, with each individual being charged \$100,000 USD. This is also a great source of revenue for these companies, and therefore, conflict has arisen. A decision must be made. If not, the first trip to Mars will be delayed, further worsening the situation. This transportation is only being conducted by private organizations and not agencies like ISRO and NASA. This is controversial as government agencies are often more affordable and middle class families will be able to afford this journey. NASA has offered to only provide U.S. government contracts to these companies to fund their projects, however, they are not offering their own services. This has caused infighting and debate as many analysts and members on the Council panel believe that the private companies are launching the transportation services for their own profit. Individuals and governments within the Council are insistent that profits should be reasonably divided, and that operations should not be privately led, or led divisively (where only certain Council members are permitted to take part in leading the operation).

Governance

In order for a civilization to survive and thrive, a government must be formed and mutually agreed upon. The citizens must be content with the government decisions. As of right now, a government has not been decided yet. The committee's founding fathers—Bezos, Richard Branson and Elon Musk—have arrived at a decision, which is to distribute the land and resources according to that specific nation's contributions to the development of the International Space Station. This will have immense social impacts. Countries with vast populations will not be subjected to adequate land, leaving large portions of their citizens stranded on Earth, with only the wealthy groups flying to Mars. In addition to this, distribution of resources is unfair as each country must have access to equal amounts, and proportionate to their population. David Malpass and Simonetta Di Pippo have begun protesting against this, further escalating the conflict. Furthermore, David Malpass has decided to expose this decision to the public, causing riots across the globe. This situation must be handled as only then humans may begin colonizing Mars.

Aside from the current status on Earth, the Council has begun planning land allocation and formations of borders. Mars' diameter is approximately 6800 km, whereas Earth's diameter is approximately 1300 km. Therefore, Mars is only slightly larger than half of Earth. This size difference is extremely crucial as the distribution of land is now more challenging. To combat this, the Council of 14 members has passed an extremely ruthless bill, with ten votes for this bill and four against. The four members against this act are Simonetta Di Pippo, David Malpass, Joe Biden and Greta Thunberg. The act essentially states that each country may only bring 25% of their population to Mars. More importantly, only countries selected by the Council may allow their citizens to travel to the Red Planet. The age

restrictions are also severe, as only people in the age range of fifteen to thirty-five years are allowed to embark on this mission.

A combination of these barbaric policies and the Council's reluctance to make amends has led to severe conflict and unbalance. The conflict has escalated to the point where the four members who voted against this bill have threatened to expose this agenda to the public, potentially leading to the overthrow of the Council leaders.

Anti-Colonization Movements

A significant amount of money is being invested in this committee. Private Corporations such as SpaceX, Blue Origin and Virgin Galactic have pledged 2% of their revenues to this Council. In addition to this, the U.S. and Russian Federation have also contributed 5% of their GDPs to the development of aerospace technology. This is a large amount of money that is being invested in an "experiment." This has sparked controversy and has led to anti-colonization movements on Earth. Protests, led by Greta Thunberg, have motioned to utilize these funds to develop technology and programs that can clean Earth and combat the effects of climate change. The United Nations is also backing these movements, as preserving Earth is considered as "ideal." Citizens are willing to live inconvenient lives, wearing hazmat suits, as opposed to building their own civilization on Mars. This mission is primarily backed by the underprivileged and middle class families who are unable to afford the move to Mars— around 85% of the global population maintains less than \$100,000 USD in savings, a problem compounded for families who must pay for each individual. According to Council bills, a majority of this population will be left stranded on Earth, while those who can afford it will settle and create a settlement on the Red Planet.

Possible Solutions

Please note that this section is intended to provide some potential ideas for how the crisis could come to a resolution— the ones presented here, while certainly valid examples, lack the nuances that are inherent to solutions which arise after extensive debate in committee. We encourage you to explore all possibilities, and to think critically: Which of the solutions would provide the best benefits to your character? How could solutions be adapted or altered in your favour? How do you want to see the crisis resolved?

Corporation-Centric Colony

In this solution, the Council, and, by extension, the new Mars colony, is to be overseen by major corporations, rather than political parties or individuals. Here, the corporations would not only oversee the actions of the Council, but would also provide the primary financing source for the new colony. This solution would allow for the prevention of political bias, and allows for many of the board members to see an increase of power and influence. However, unless corporation owners are able to find allies with government officials, this solution would divide the committee, as political persons would lose the potential for practical and economic power in the new settlement. Corporations within the Council would now need to fully fund the operation independently, and if the colonization effort is successful, they must strike a successful balance between conglomerates and competition to ensure that the venture is

financially viable. This will only resolve the issues of governance, and would require alternate solutions to resolve issues around anti-colonization movements and citizen transport to Mars.

<u>Lottery</u>

This solution would ensure the fairer distribution of places within the new colony, but will likely cause controversy and division within the Council. In this solution, individuals would pay a fee of \$10,000 USD each to enter a lottery to be added to the list of candidates for the flight. The lottery takes place, and the citizens are selected. With the assumption that at least ten times the possible candidates will apply, fees will be compensated for, and travel becomes more accessible. However, the Council must be prepared to resolve public relations issues that will inevitably be caused by those who enter the lottery but are not selected, and must have a method of proving the fairness of their choice. They also must prevent one another from selecting particular individuals, causing internal corruption and dividing the Council from within. As well, this solution does not resolve the issues surrounding governance, but may resolve some of the problems with anti-colonization movements and citizen transport to Mars.

Covert Operations

This solution is extremely risky and would require a substantial amount of delicacy and secrecy. However, it would resolve the issue of anti-colonization movements. Within this solution, only families and individuals well-known to Council members would be permitted onto the flight, and would sign a variety of NDAs to ensure that their travel is not known to the public. They would take flight from an undisclosed location, and any passing civilians would be informed that the flight's intention is only to collect atmospheric samples. This solution would require the effective and successful use of press releases (and, in certain countries) propaganda, to ensure that citizens are convinced that no colonization mission will be taking place. It also means that all Council members must be completely trustworthy— loose lips sink (space) ships, and betrayal remains a very high risk here. This solution would also not resolve the issues surrounding governance and citizen transport to Mars, which must be fully solved internally before the flight can take place.

Character Overviews

It is important to note that while the following character overviews are separated by category for convenience, these are not bloc positions, and each character holds their own interests and priorities independent of their category. We encourage you to think outside the box and explore the potential personal and global benefits of a variety of alliances.

Global Leaders

First elected in November of 2036, and subsequently reelected in November of 2040, **Hunter Biden** is the president of the United States of America. He is considered to hold the most power, and holds hefty influence within the Council. He is enthusiastic about the potential to hold power in a future Mars colony, and his priority is to increase the strength of the United States. While he has positive or neutral relations with many administrators and entrepreneurs, tension has arisen between the United States, and Russia and China regarding the allocation of territory on Mars.

First elected in 2012, and reelected every election since, **Vladimir Putin** is president of Russia. With a substantial amount of assets and a strong governmental focus on space exploration, he is considered to be extremely powerful. He is allied with the Chinese government, and is enthusiastic about gaining land and increasing Russia's intergalactic strength. His government is widely considered to be polarizing, and longstanding tensions between the Russian and United States governments may lead to conflict over land on Mars.

Elected for the first time in 2033, and having sustained her position since, **Xi Mingze**, daughter of former president Xi Jinping, is the president of China. Having a large amount of influence and personal consolidated power, as well as a strong space exploration program, she is eager to ensure more land and assets for China within the new Mars colony. While she is allied with the Russian government, there exists substantial and longstanding animosity between the Chinese and United States governments, and tension may arise as the governments each pursue their overlapping interests.

Omar Sy was first elected as president of France in 2037, and has been reelected in each election since then. After the creation of the French Space Force early in his presidency, he placed a substantial emphasis within his government on furthering France's space exploration capacity, and has invested several billion euros in the Space Force program since then. While his government is not considered exceptionally powerful in itself, he holds positive relations with most world leaders, and the potential to strengthen or break connections.

As the current director of the Canadian Space Agency, **Hadrien Trudeau** is considered an extremely valuable asset within the Council. Though she does not hold a board position and maintains fewer financial assets than other leaders, Canada's crucial contributions to the development of the International Space Station hold her in very high regard, and she continues to grow in influence. Her primary goal is to increase the power held by Canadian industries as the Mars colony develops, and to further Canadian strength and influence within the new Council and colonization effort.

As director of the China National Space Agency, **Ma Yuankun** is considered a powerful member of the Council, though he does not hold a board position. As the lifespan of the International Space Station comes to a close, China will be the only nation with a space station, giving him a particular power within the committee. Furthermore, China has launched a series of rovers and scientific missions to Mars in recent months, marking the first direct competition towards the United States. He is hindered, however, by the fact that most countries other than Russia are indirectly allied against China, and new alliances will be difficult to form.

Director General of the European Space Agency, **Merit Steinmeier**, daughter of former German president Frank-Walter Steinmeier holds significant influence in the world of aerospace exploration. Representing 22 member states and eager to discover new frontiers in the colonization of Mars, he maintains an annual budget of €6.5 billion. His priorities lie in encouraging the growth in power and strength of the member states within the European Union, and he maintains no significant specific rivals.

However, he also lacks any dedicated allies within the Council, and must work to grow his position in order to ensure a strong position within the Mars colony.

Entrepreneurs

Amazon CEO and entrepreneur, born in 1964, **Jeffrey Bezos** is the founder and CEO of Blue Origin, a privately-funded aerospace manufacturer. He holds a board position in the Council, and his status as the world's wealthiest individual affords him a remarkable amount of power within the committee. He holds around \$191 billion USD in assets, and is eager to use his current influence to ensure a prominent place in the future governance and economic development of the new Mars colony. However, he continually struggles with negative public relations revolving around labour practices, and as a result must work to win favour with the public in order to gain influence.

CEO and founder of SpaceX, **Elon Musk** is one of the world's leading visionaries in exploring the possibilities of a Mars colonization. He holds a board position within the Council, maintains a net worth of \$184 billion USD, and is a primary funder and developer of new technologies in the effort to colonize. As the de facto head of the Council, he is enthusiastic about gaining influence over the Mars colony and encouraging reliance on his other industries (e.g. Tesla). Though to a lesser extent than Bezos, he also frequently struggles with negative public relations, and must successfully change the public view in order to maintain his influence in the Council and the colonization effort.

Holly Branson is the daughter of Richard Branson, founder of Virgin Galactic, an American aerospace company. While she holds a board position in the Council, many powerful connections, and a net worth of \$4.6 billion USD, her shareholders in Virgin Galactic are beginning to experience a crisis of faith in her capacity as a businesswoman. The company went public on October 28, 2019 and in its 2021 financial filing, reported \$420 million USD in net losses. It is projected to continue losing money into the future, a problem which she must work to resolve in order to gain influence in the Council and regain the faith of her shareholders and the public en masse.

Administrators

Head of the United Nations Office for Outer Space Affairs, **Alexandra Di Pippo** is one of the most powerful members of this Council. She maintains a board position within the Council, and is very heavily involved in the political aspects of colonizations. Her main responsibilities lie in successfully allocating resources and land in a manner that minimizes potential conflict, and regulating weaponry and military equipment. As such, while she is somewhat limited by the comparatively average budget held by UNOOSA, she maintains a substantial amount of non-monetary assets in the form of weaponry and power.

Administrator of NASA, **Jonathan Simmons** works closely with Joe Biden and holds the authority to make decisions concerning the United States' space program. He holds a board position on the Council, and maintains friendly or neutral relationships with most other board members. His interests

vastly overlap with those of Joe Biden, but he is less concerned with the political aspects of the Mars colonization effort, and instead places a stronger emphasis on the scientific potential of a successful colonization. Currently, he is inhibited by his need to remain answerable to Joe Biden in order to maintain powerful connections. However, he maintains the option of cutting ties (at a cost).

Director of the United States Economic Council, **Brian Deese** works closely with both Joe Biden and Gita Gopinath to identify the best possible funding and economic strategies for the United States government. Like Bill Nelson, he currently remains answerable to Joe Biden, and, by extension, the United States government en masse. His priority lies with the financial well-being of the White House, and the capacity for the White House to internally fund operations of interest to them, without involving outside sources (a privilege held by not only Joe Biden, but by Deese and Gopinath as well).

Chief Economist of the International Monetary Fund, **Gita Gopinath** works to advise the Council on potential financing strategies. She works closely with not only Brian Deese and Joe Biden, but also with Jeffrey Bezos, Elon Musk, and Richard Branson to determine private financing options for confidential operations. Her priorities lie in ensuring that any necessary operations have proper and appropriately confidential funding. She is currently answerable to Joe Biden and the United States government, but she herself remains the only point of contact between funders and the United States government.

Administrator of ROSCOSMOS, **Alexey Rogozin** works to oversee the state corporation of the Russian Federation concerned with space flight, cosmonautic programs, and aerospace research. He is answerable to Vladmir Putin, and while his personal priorities lie in scientific discovery and growth, he is also required to partake in political analysis on behalf of the Russian government. He is hindered somewhat by a relatively low annual budget of \$\mathbb{P}\$176 billion, and must find alternative financing options if he intends to carry out any major operations without making use of due process through the Russian government.

President of the World Bank, **James Macintosh** works to finance humanitarian operations such as funding for basic resources, and resource exploration on Mars. While he must also continually calculate and analyze the political and global ramifications of any funding decision made, his priorities lie in his personal economic interests, and the economic interests of the World Bank. He is currently hindered by his highly publicized decisions, and the potential to anger stakeholders and lose funding. In order to find personal and professional success, he must ensure consistent funding for all operations.

Discussion Questions

- 1. Who should hold the power to govern the newly created colony? What sort of government should form? Should the colony remain under one single government? What would the benefits and detriments be of splitting the colony into multiple groups with separate governments?
- 2. How should division of the land on Mars be decided? Who should hold greater control over the land than others? Should some land remain collectively owned by all those within the Council?

- 3. How will life be sustained within the colony? What tactics should be taken towards long-term food solutions? How will the economics of the distribution of food and other resources function? Who will fund these endeavours?
- 4. How can governments, organizations, and corporations ensure that those under their domain support their endeavours towards the colonization of Mars? What tactics can be used to increase public awareness? Is it always a good idea to increase public awareness?
- 5. Should governments, entrepreneurs, organizations, and corporations be rewarded for financial contributions to the creation of the new colony? What would the ethics be? How would they be rewarded?

Other Aspects to Consider

Suggested Avenues of Research

As this is a fictional crisis committee, much of the history which is examined in this committee and which will play an important role in this conference is not a part of real-world space exploration. In this sense, your only source of information on the current situation is this guide itself. As such, we encourage you to examine all the information provided in order to gain as deep of an understanding as possible.

However, that does not mean that external research will not be beneficial. In fact, it is important that each delegate conducts some research on the historical stances of your character and their potential motivations, and takes the time to explore some of what is currently known about the benefits and drawbacks of the colonization of another planet. It is our hope that this research will help ground each delegate's solutions in reality, offer some inspirations for committee movements and position papers, and allow for the exploration of legitimate issues even in this fictional setting.

Bear in mind that your position paper should focus on your character's past and present stance on different aspects of the colonization of Mars, and how your character believes that the process of colonization should look going forward. It should offer an idea of how your character intends to contribute to the committee, and an overview of *some* potential solutions to the issues examined throughout this background guide. These solutions should align with your character's stance, and should give a general idea of how your character intends to act during the committee.

Committee Toolbox

Many characters within this committee are government officials, and all are highly influential members of society. While this affords each member a substantial amount of power, there is also a risk of negative public attention, and manipulation and betrayal tactics may include the exposing of negative activities to the public. As such, we encourage you to make use of all possible means of communication, including private and public directives, crisis notes, and press releases. Doing so will allow for a strong character arc, and may make it easier for delegates to respond to issues either individually or collectively.

If during the committee there is a method of communication that you would like to make use of that is not mentioned here, feel free to send a message to the Dais team to enquire about whether it would be possible.

Sources Cited

- Aldridge, E.C. "Report of the President's Commission on U.S. Space Exploration Policy." NASA-Gov, NASA, 27 Jan. 2004, www.nasa.gov/pdf/60736main_M2M_report_small.pdf.
- Amos, Jonathan. "Recycled Rockets: SpaceX Calls Time on Expendable Launch Vehicles." BBC News, BBC, 30 Sept. 2013, www.bbc.com/news/science-environment-24331860.
- Becque, Elien. "ELON MUSK WANTS TO DIE ON MARS." VanityFair Hive, March 10, 2013, https://www.vanityfair.com/news/tech/2013/03/elon-musk-die-mars
- Chang, Kenneth. "Elon Musk's Plan: Get Humans to Mars, and Beyond." The New York Times, The New York Times, 27 Sept. 2016, www.nytimes.com/2016/09/28/science/elon-musk-spacex-mars-exploration.html.
- Eric Berger Mar 28, 2017 5:38 pm UTC. "Finally, Some Details about How NASA Actually Plans to Get to Mars." Ars Technica, 28 Mar. 2017, arstechnica.com/science/2017/03/for-the-first-time-nasa-has-begun-detailing-its-deep-space-explo ration-plans/.
- Jameson, Alex. "Stephen Hawking: Mankind Must Colonise Space or Die Out." The Guardian, Guardian News and Media, 9 Aug. 2010, www.theguardian.com/science/2010/aug/09/stephen-hawking-human-race-colonise-space.
- Piper, Kelsey. "The Case against Colonizing Space to Save Humanity." Vox, Vox, 22 Oct. 2018, www.vox.com/future-perfect/2018/10/22/17991736/jeff-bezos-elon-musk-colonizing-mars-moon-space-blue-origin-spacex.
- "Quick Facts About NASA's Perseverance Rover." Nasa Science Mars, https://mars.nasa.gov/mars2020/mission/facts/
- Science News StaffMar. 23, 2018, et al. "Congress Approves Largest U.S. Space Research Spending Increase in a Decade." Science Mag, 23 Mar. 2018, www.sciencemag.org/news/2018/03/updated-us-spending-deal-contains-largest-research-spending-increase-decade.
- Wall, Mike. "Bill Nye: It's Space Settlement, Not Colonization." Space.com, Space, 25 Oct. 2019, www.space.com/bill-nye-space-settlement-not-colonization.html.
- Weitering, Hanneke. "Elon Musk says SpaceX's 1st Starship trip to Mars could fly in 4 years." Space.com, October 16, 2020, https://www.space.com/spacex-starship-first-mars-trip-2024
- Wright, William. "The Meaning of Space Settlement." The Space Settlement Institute, 4 June 2014, www.space-settlement-institute.org/meaning.html.