

RTM

THE RACE TO MARS: *Cooperation or Competition?*



39th Annual Model United Nations Conference at St. John's High School

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Letters From the Chairs

Dear Delegates,

My name is Christian Agwanda, and I will be your chair for “The Race to Mars: Cooperation or Competition?” I am a senior at Saint John’s and have participated in Model UN for all four years of high school. I have attended three national Model UN conferences and have been a part of this very conference as a delegate and a chair. Outside of Model UN, I play lacrosse and am involved in various activities at Saint John’s, including Campus Ministry and the Bowling team, which I promise I take far less seriously than I just made it sound. I am very excited to chair at SJMUNC this year! My main goals in this committee are to ensure that everyone leaves this conference a better delegate than when they came in and that every delegate has a good time. We chose this topic to challenge every delegate while also keeping it interesting. This committee is only what you make of it. To be successful, you should read the briefing paper, know your position well, and do as much research as possible. I am so excited to see the approach you all take when working towards a solution, and just a reminder: there is no “right” solution. Your imagination is your best friend in this committee. Think outside the box, be creative, and don’t be afraid to propose ideas that may seem unconventional. I want to see you debate, negotiate, compromise, and, most importantly, have fun while doing it.

I look forward to seeing you all in committee, and do not hesitate to reach out with any questions. (agwanc27@stjohnshigh.org)

Sincerely,

Your Chair

Dear Delegates,

My name is Theo Miloscia, and I will be co-chairing “The Race to Mars: Cooperation or Competition?” I am a sophomore at Saint John’s High School, and this is my second year doing Model UN. Although I take Model UN seriously, I urge all delegates to relax and have fun. Outside of Model UN, I play baseball at Saint John’s, and even though I do not play competitively, I enjoy golf more than anything else. Besides sports, I am involved in our St. John’s String Chamber Orchestra and our Jazz Club, where I play the double-stringed bass. Recall that I urged delegates to relax and have fun; that is my main goal for this conference, because I remember that I took Model UN too seriously, and it prevented me from reaching my potential. One way to relax is to be prepared. Christian and I have developed a briefing paper on the matter of this delegation, and the more you read and the more research you do, the better prepared you will feel, more confident, and ultimately more relaxed. When I say relaxed, I do not mean kicking back and watching the delegation unfold; I mean participating in Model UN as it matters, while recognizing that you have been prepared and know your part better than anyone else. And having confidence can go a long way, just playing your role to the best of your ability and acting as if you know it best can really help yourself, your bloc, and even the entire delegation. If you need to or want to reach out, my email is (milost29@stjohnshigh.org). And as I leave you with that, I wish you all the best of luck from the moment you read this until our delegation ends.

Godspeed,

Your Co-Chair

History of the Problem:

With two continental powers, the United States of America and Soviet Union, vying for global supremacy, competition manifested in completely new forms. The conflict of the Cold War that couldn't be settled on the battlefield had to be resolved in other, more creative forms. The Cold War became ideological, and a race began between both nations to disseminate their respective doctrines. The Cold War became economic as capitalism and communism were openly measured against each other. The Cold War took on forms of proxy wars, intelligence operations, and political skirmishes. But perhaps the Cold War's most distinctive form of competition was the space race.

On October 4th, 1957, the Union of Soviet Socialist Republics (U.S.S.R.) launched Sputnik, the first artificial satellite to orbit Earth.¹ The space race had begun. Space was sought during the Cold War not just for power, but also for politics. Sputnik was seen as a way to win over the Third World and ally with the U.S.S.R. In reaction, the National Aeronautics Space Administration (NASA) was formed to initially match the Soviet Union's most novel achievement, and then to surpass it. On July 20th, 1969, US astronauts became the first to land on the moon: a feat that tore down humanity's ceiling. Ever since then, the space race has grown into new successes, higher goals, and an enduring contest of who can go farther, leading to the race to Mars. If we reached the moon 50 years ago, why can't we shoot for Mars now?

Though the race to Mars today is not just fought between countries, the stakes are just as high. In the same vein of the Cold War, space travel is deeply symbolic for the human race: it is a paragon of our sophistication, a show of our skill, and a source of hope for our future.

¹ Launius, Roger, D. "Sputnik and the Origins of the Space Age." Nasa. Accessed August 24, 2026. <https://www.nasa.gov/history/sputnik/sputorig.html>.

But the race has evolved from its recent history too. Nowadays, large, private companies such as SpaceX are joining the race to Mars.² The colonization of Mars will be a huge step in human growth. Will it be used as a source of power and politics, just like Sputnik was?

As space technology continues to advance, Mars is becoming an increasingly realistic destination for human exploration and, eventually, settlement.³ Evaluating human progress from a bird's eye view, anyone must realize that exploration—searching for new land—is necessary to human survival. The Roman Empire, at its height, maintained control of innumerable territories because growth is nothing without expansion. Christopher Columbus did not stumble upon the New World without an exploratory spirit, and his discoveries opened entirely new avenues for Europe. Even within America, the thrill of seeking Western land propelled our nation's advancement and as the popular Turner Thesis would assert, without territory to expand towards, growth opportunities dry up and the world stagnates. Mars is the next natural target in the course of human development, and if history indicates anything at all, it is that humans inevitably broaden their horizons.

Governments and private companies are investing heavily in rockets, spacecraft, robotics, artificial intelligence, and life-support systems that could make long-term human missions possible. Unlike the original Space Race, however, the modern race to Mars involves both national governments and private corporations, creating new questions about who will control future missions, resources, and settlements.

² "Mars and Beyond." SpaceX. Accessed August 24, 2026. <https://www.spacex.com/humanspaceflight/mars> .

³ Robert Zubrin, "The Case for Colonizing Mars," The National Space Society, accessed August 24, 2026, <https://nss.org/the-case-for-colonizing-mars-by-robert-zubrin/>.

Statement of the Problem:

Now, in light of progress in space technology, the possibility of colonizing Mars is greater than ever before. Government and private space organizations are working to expand human activity beyond our home planet with advances in reusable rockets, spacecraft, robotics, artificial intelligence, and life support technologies. They have removed some of the barriers to deep space exploration and opened the door to new opportunities for scientific discovery, technological advancement, resource utilization, and long-term human survival by providing a second world. As Mars is the most Earth-like planet in our solar system, it is currently the best candidate for human colonization. While extremely challenging, the Mars environment may be overcome through future technology to create permanent human outposts. Settlement on Mars has the potential to lead the way in scientific research in planetary science, adaptation to new environments, the study of extraterrestrial life, and to protect humans from planet-ending catastrophes such as asteroid impacts, pandemics, global warfare, and devastating changes in climate. As such, there has been significant investment in the space program. The private sector has had an increased role in these space efforts, such as large corporations like SpaceX and Blue Origin. Government space agencies also continue to research, build hardware, and conduct scientific missions to explore the cosmos and expand international cooperation. These joint public/private initiatives have led to remarkable progress previously unimagined.

However, there are many economic, political, ethical, and legal obstacles standing in the way of colonizing Mars. Space exploration is currently the most expensive scientific enterprise in history, requiring massive expenditure of money, resources, and technological effort. It requires constructing spacecraft for interplanetary journeys, delivering supplies, setting up

habitation and food and water producing facilities, and protecting space travelers from dangerous levels of radiation. Currently, such enterprises may only be possible for very wealthy nations and corporations, raising concerns that any resources found and/or benefits derived from space exploration will be shared by few rather than all. Furthermore, the prohibitive cost of a Mars mission has raised questions regarding whether space should be prioritized over urgent needs on Earth, such as fighting poverty, healthcare crises, inadequate education, or responding to climate change. Supporters of space exploration claim that innovations spurred by research in this field have beneficial applications in everyday life, for communications, health, environmental observation, and disaster response. How to balance space exploration and Earth issues remains a major challenge for policymakers and advocates. Other ethical and legal issues must also be considered. International treaties pertaining to space are largely a relic of an era before commercial activity beyond Earth and permanent settlements became feasible. These treaties don't fully cover ownership of space resources, commercial rights for extracting resources, the structure of future governing bodies on a distant world, and territorial claims. These legal and political vacuums may well be fertile ground for competition between governments and private entities. Protection of the environment must also be taken into account. Mars has thus far been explored for evidence of existing and past life. Future human activity there could inadvertently contaminate Mars and compromise the ongoing search. Any future space explorers will have to adhere to strict guidelines that prevent them from contaminating potential sources of life. International cooperation and equitable benefit sharing are key to humanity truly reaping the benefits of colonizing Mars. As the global community becomes capable of expanding onto other planets, it will need to create global mechanisms to ensure fair access to resources, govern activities, preserve space, and benefit all, not just the powerful.

Possible Solutions:

One possible solution would be to update and further enforce modern space law. By clarifying the Outer Space Treaty, which states that all national appropriation of celestial bodies is prohibited, addressing how to reconcile with the prohibition of commercial mining and extraction of raw materials.⁴ Utilizing and expanding on the Artemis Accords framework by regulating mining zones, where extraction is temporarily allowed so materials can be studied, while being closely monitored internationally, and also protects against potential grabs for land, lastly, by binding multilateral accords to create a universally accepted treaty governing all interstellar space and individual planets.

Another solution to combat colonization of Mars and other planets would be to increase corporate accountability to prevent the formation of off-world monopolies. The Outer Space Treaty holds launching states legally responsible for entities not affiliated with the government. International standards requiring regulatory agencies can be established, helping enforce environmental and anti-monopoly compliance before launch permits are granted.

Funding and the transferring of technology can influence Mars exploration to help society and humanity, not wealth and power. Establishing an international fund that directs a portion of revenue made from commercial space activities, which would be distributed to help all aspects of life on Earth. Creating a database with information on environmental, geological, and biological data gathered by all public or private organizations. The database ensures that all organizations have direct access to innovations, benefiting all, especially developing nations.

⁴ Cannon, Kevin, M. "Mineral resources of Mars based on decades of sample analysis." Springer Nature Link. Accessed August 24, 2026.
<https://link.springer.com/article/10.1007/s44461-025-00001-8>.

Another aspect of the colonization and exploration of Mars is safety. Space research should be taken seriously, and guidelines have been established to prevent contamination of Earth or Mars, but no international mandates have been established to protect potential Martian microbial life or preserve research sites. Also, getting to Mars is not 100% clean; during the process, orbital debris, rocket booster disposal, and industrial waste on Mars itself need to be managed properly to reduce ecological degradation.

Lastly, creating an intergovernmental framework, similar to the Antarctic Treaty System or the International Space Station Agreements, establishes legal jurisdiction over criminal actions and civil disputes.⁵ Even though it is Mars, not Earth, basic human rights still need to be met; protections for colonists who have devoted their lives to Mars are necessary. Guidelines will ensure that private corporations or administrations cannot deprive people of basic human needs, such as critical access to life-support, restrict rights, or exploit established labor laws.

In space, organics do not have access to medical assistance, or very little. Allowing separate entities to build their own facilities and operate independently risks spreading our resources thin and putting lives at risk. Laws should be enacted to unite all entities so that resources are pooled. In addition to resource sharing, laws should also state that if a person is in dire need of assistance, regardless of which corporation they are in, they will be given the necessary aid. By pooling resources and establishing the right to assistance, all entities ensure that healthcare is treated as a non-negotiable human right rather than an asset.

⁵ John Uri, "20 Years Ago: Station Partners Sign Intergovernmental Agreement (IGA)," NASA, accessed August 24, 2026, <https://www.nasa.gov/history/20-years-ago-station-partners-sign-intergovernmental-agreement-iga/>.

Bloc Positions:

- **The Allied Space Order** - They represent a multinational, alliance-based approach to humanity's expansion into space. Their philosophy centers on cooperation between governments, shared infrastructure, common technical standards, and coordinated exploration programs. Their immediate goal is to establish a sustainable human presence around the Moon and eventually extend that presence toward Mars and other destinations. They see international partnerships as essential for pooling scientific, financial, industrial, and technological resources. Overall, this bloc represents a rules-based model of space exploration in which allied nations collectively build and govern humanity's next frontier.
 - United States of America
 - Drives the Artemis program and coordinates space standards.
 - United Kingdom
 - Served as an Artemis signatory early and contributed to the communications satellites and space surveillance.
 - Canada
 - Advanced space robotics for deep-space staging stations.
 - Japan
 - Key hardware contributor providing life support and manned lunar/planetary rovers.
 - Australia
 - Developing specialized surface rovers and deep-space communication networks.
 - France
 - Core ESA backer. Aligns European launch capabilities with Western ideas.
 - Germany
 - Leads manufacturing for the ESM, powering deep-space transit vehicles.
 - Italy
 - Designs pressurized surface habitats and transit modules.

- United Arab Emirates
 - Built the airlock module for the Lunar Gateway.
 - South Korea
 - Integrated lunar exploration correlates with Western tracking networks.
 - India
 - Signed the Artemis Accords in 2023. India leverages high-efficiency technology for interplanetary probes.
 - Brazil
 - Anchors Latin American participation in Western space commerce.
 - Saudi Arabia
 - The Artemis signatory directed sovereign funding for Western infrastructure ideology.
 - Israel
 - Provides specialized deep-space technology to help shield against radiation during human transit.
 - Spain
 - Contributes deep-space tracking sensors and high-frequency planetary communication
- **The Sino-Russian Strategic Space Coalition** - They represent a state-driven alternative centered on strategic independence and national control over critical space infrastructure. Their vision emphasizes long-term lunar development, independent launch capabilities, nuclear power, scientific research, and deep-space communications. Their goal is to establish a self-sufficient network of lunar and orbital facilities capable of supporting increasingly ambitious missions beyond Earth. They favor bilateral and multilateral partnerships that operate independently of Western-led space institutions. Overall, this bloc represents a competing geopolitical model in which sovereign states use space infrastructure to strengthen their technological independence and strategic influence.
- Russia
 - Co-leads ILRS, provides nuclear power systems, and orbital life support tech.

- China
 - Co-leads the ILRS, launched the Tianwen Mars roadmap, targeting crewed landings.
- Belarus
 - High-grade optical components and microelectronics for Russian-Chinese probes.
- Venezuela
 - South American strategic partner, hosting ground stations for tracking. Meant to assist Chinese deep-space telemetry.
- Pakistan
 - Early ILRS member contributing a scientific CubeSat to Chinese missions.
- Egypt
 - North African hub integrating satellite infrastructure and tracking support aligned with Chinese state space agency support.
- South Africa
 - Hosts radio astronomy and optical deep-space tracking, which is aligned with Russian infrastructure.
- Thailand
 - Developing space weather and scientific instruments used for ILRS rovers.
- Kazakhstan
 - The Baikonur Cosmodrome is a critical physical launch infrastructure for Russian assets.
- Nicaragua
 - Diplomatic alignment, as well as Latin American regional backing for a state-led ILRS coalition.

- **The Commercial Space Frontier** - They represent a commercially driven vision in which private companies become the principal architects of humanity's expansion into space. Their philosophy focuses on reusable transportation, private investment, technological experimentation, resource utilization, and the creation of profitable off-world industries. Their goals range from commercial stations and lunar logistics to in-space manufacturing, planetary exploration, and ultimately permanent settlements on Mars. Rather than depending entirely on government programs, they seek to create an interconnected space economy sustained by private customers, markets, and

competition. Overall, this bloc represents the transformation of space from a primarily governmental domain into an open economic frontier dominated by entrepreneurial companies and private infrastructure.

- SpaceX
 - Developing a ship capable of establishing a self-sustaining city on Mars.
- Blue Origin
 - Building New Glenn heavy rockets and landing systems fit to construct off-world industry.
- Rocket Lab
 - Manufactures reusable rockets and planetary probe platforms.
- United Launch Alliance
 - Lockheed/Boeing provides heavy lifting capacity.
- Axiom Space
 - Constructs commercial orbital space stations and EVA suits.
- Sierra Space
 - Builds spaceplaces and expandable space habitats.
- Intuitive Machines
 - Operates commercial landers and relay nodes.
- Astrobotic Technology
 - Develops planetary surface landers, rovers, and power systems.
- Ispace
 - An entity that deploys private landers to extract off-world resources.
- Impulse Space
 - High-energy orbital transfer vehicles that are engineered to push cargo to Mars transit.
- Relativity Space
 - Leverages 3D printing to lower the cost of reusable and orbital structures.
- Redwire Space
 - Manufactures space-grade 3d printers, solar arrays, and orbital structures.
- Varda Space Industries
 - Operates automated manufacturing and atmospheric re-entry pods.
- Astroscale
 - Satellite servicing, orbital logistics, and space debris mitigation.
- Planet Labs
 - Operates satellite observation systems, establishes mapping blueprints for non-Earth bodies.

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