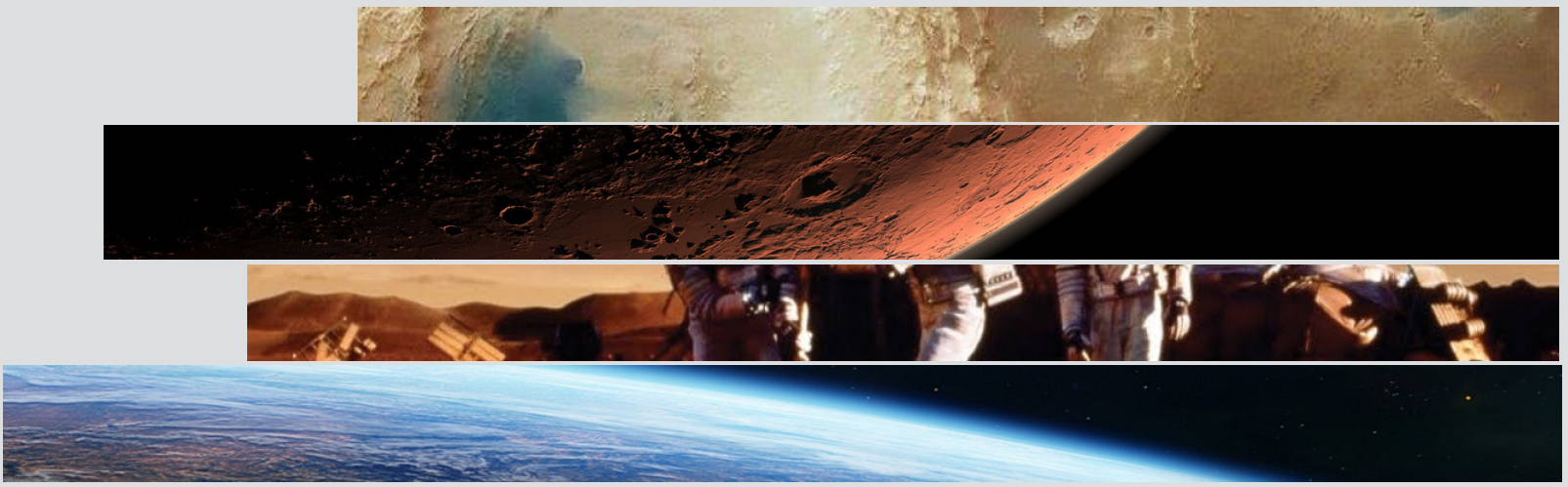
# Ad Hoc Committee
# Red Alert: 2047



Model United Nations at Illinois XXII

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**Letter from the Director**

Dear Delegates,

First, I would like to welcome you all to MUNI XXII. I hope you are as happy to attend as we are to have you here. My name is Andrew Maikisch, and I will be the Director of this committee, Mars 2047. My goal is to make this committee as interesting and engaging for you as it was for my team when we put it together.

Due to the nature of this committee, you will have little information going in. You will be required to think on your toes, and do so quickly. In this committee, your life and those of your fellow colonists are at stake here. The other colonists are looking to you as the board of leadership for a solution and a future to this mission. The entire colony is at risk, with food and water levels critically low. How to survive these shortages is ultimately up to you as a board, but you must make your decision quickly. Each moment without a solution brings the colony closer to collapse. Whatever you decide is the best solution for the colony will affect not only the people on the red planet, but will change how Earth views colonization efforts like this. The argument of how the stars should be utilized is still under discussion. Many believe that it should be open to all and for any efforts. Many private corporations support this, while some believe space should be used for scientific efforts. Space agencies are the loudest advocates for this cause. Whatever the colony on Mars decides will likely be the foundation for all extraterrestrial efforts for the rest of mankind's history. Ladies and gentlemen, you are potentially deciding the fate of humanity at this committee.

As Director, I am excited to see the direction you all lead the colony. This is not a normal committee, and I hope that means the solutions here are extraordinary. The events taking place in this simulation are all realistically probable, some possibly occurring within the next decade. You have a fantastic opportunity here as a delegate. You can give answers now to issues that will undeniably arise in the future. I can't wait to see your solutions. If you have any concerns, please feel free to contact me at any time, my email is amaiki2@illinois.edu

Sincerely,

Andrew Maikisch

**Background**

History - In the year 2019, in a quiet room in the Johnson Space Center, nine men sat in silence. The papers on the table in front of them detailed a comprehensive plan to go beyond the current reach of humanity. With three signatures, a new and unified space race would be launched. Silently, each man lifted their pens in turn and signed at the bottom of the documents. In that moment each committed their organizations to create a human colony on Mars. This colony would be dedicated to expanding the horizons of humanity scientifically, through efforts of political unity. The founding space agencies were those of the United States, Russia, and China. Pooling their research efforts, NASA, Roscosmos, and CNSA were able to develop new technologies that would stand the test of Mars. Eventually, these organizations invited different space agencies to join their efforts, expanding the efforts to include those of India, Japan, and the European Space Agency. When it became clear funding would be an issue to development, the coalition reached out to private companies. Companies negotiated the agreement on their own terms with the scientific community, some withdrawing from the negotiations while others pressed on. In the end, only a few organizations agreed to provide additional funding and manufacturing of materials to support the colony. Among the list of corporations are notable examples like SpaceX, Thales Alenia Space, and Jinko Solar. Together, these companies and organizations form the Martian Coalition.

Development - The design created by the coalition set the colony to span an area of two square kilometers on the Scandia Cavi region of the planet, near the Dokka crater. The colony was to be made up of 25 “pods”. These pods would be pressurized spaces that can support human life on the inside, balancing the pressure of the inhabitants inside the compartments with the atmosphere outside each pod. Each pod would be have an exterior made up of a steel dome protecting the inner bubble of humans and equipment. Pods would have accessways to both passages connecting units and the utility tunnels around each pod. 14 of the pods were designed for research and subsistence purposes, 10 for housing colonists, and 1 pod purely dedicated to the arrival and departure of resupply rockets. The pods and equipment for the colony was delivered to the designated drop site on Mars by unmanned missions controlled by SpaceX. Over a period of seven stressful years, hundreds of remote deployments to the surface of the red planet delivered all of the supplies for the colony. Included in these deployments were rovers that constructed the pods and made them capable of supporting human life.

Establishment - As every shipment reached Mars, each was inspected by the remote drones to ensure none were damaged or otherwise incapacitated. From various space centers on Earth the fleet of drones deployed the equipment and developed a home for the colonists. Each pod was built from the inside out, and the tunnels created afterwards to ensure safe travel between pods. While this was being remotely controlled in India, half the robotic army began building the power systems as supplied by Jinko Solar. The three solar fields would begin charging as soon as they were connected to the battery and power system of the settlement. The batteries were of crucial in the establishment of the colony, as any system failure or dust storm

would leave the colonists on emergency power. As the physical colony was built and inspected, the people who would inhabit it began their journey to the planet upon the Kestrel. With six months in transit, the colonists would have plenty of time to review all aspects of their duties to ensure maximum preparedness. As the colonists hurtled towards their new home, the final checks were made from Earth. If any mission-condemning problems were discovered, the colonists' spacecraft would slingshot around the planet and return to Earth. As each system, from power, to water, to agriculture, was inspected, the world held its breath. When the green-light was given by Mission Control, the final descent began. On July 24th, 2046, the first day of the Martian colony began.

Current Situation - From July 24th onward, everything proceeded as planned. The facilities were brought to full optimisation by the colonists, the drones proceeded to stockpile water resources, and the agricultural department has had multiple bountiful harvests. However, no utopia lasts forever. While Yami Patel has been able to keep the equipment clean and running thus far, machines are beginning to show signs of wear. More and more dust has been accumulating on the solar panels and the drones are returning with less and less water resources. In addition to the issues arising in the colony, public opinion in the governments supporting this endeavor is beginning to waver. It is now September 7th, 2047 back on Earth, and the leadership board has come together for their monthly colony assessment. Should something drastic occur, the union of space agencies will not be able to send a full resupply for another 410 days. Multiple projects and satellites can been reassigned to enable three small emergency resupplies to attempt to ensure the safety of the colony. The colony must find a way to continue endure, or the first colony on Mars will be deemed a failure.

**Topic 1: Survival On Mars**

The main topic of this committee is the survival of all people on Mars. This colony has existed for a little of a year and been relatively problem free. Despite relative success so far, each day is a struggle against the elements on Mars which are not welcoming to humans. Yesterday, a fire broke out in the agricultural pods. This fire destroyed enough machinery and food supplies to threaten the colony's chances of surviving to the resupply day.

The colony has established all basic infrastructure, but upkeep and conflict provide danger to the survival of colonists. The very reason all of you were elected was because of conflict among colonists. Every one of you is managing conflict among colonists, but also have to deal with pressure from your home nations or employers to guarantee their interests are taken care of. The current time of peace is has lasted so far, but everyone knows that it cannot last forever.

These issues are both of the lasting peace and practical survival. Colonists need to survive until the next supply run arrives. Food and water need to be provided, fights need to be resolved, and potential injuries are all real risks. The pods for agriculture mean that food should not be an issue, but if a harvest fails or cracks emerge among the water pipes, many citizens doubt that the colony has enough resources to last until resupply. Citizens have also begun to wonder what types of research are being undertaken in many of these pods. They are not accessible by most of the population and with people such as Kato Takeichi and Evelyn Almeida Dias on board, there are whispers of nefarious projects being undertaken. This body needs to not only allow the survival of the colony, but also guarantee that these rumors are not the reason that it fails.

Questions to Consider

- How can you manage the needs of the colony and the needs of your home nation/ employer?
- How will you help the body assuage fears of the colonists?
- Is your output as productive as possible?

**Topic 1a: Communication**

Communication between Earth and the colony is vital. Mission control on Earth communicates with all bodies who have a stake in the colony every 25 hours. There is a mutual agreement that if there is no word from the colony in a 75 hour period then the colonists will be assumed dead. Because of this, as well as receiving assistance and communicating any items needed on the next resupply shipment, Jeannine Sauvé and everyone on the colony who works to keep the communication technology functional have a difficult time.

Much of the necessary technology is kept outside of the colony because there are worries about broadcast interference if it is kept under a dome or other protective measures. The main infrastructure is a field of dishes which are connected to the colony and send signals back to Earth for communication. These dishes were made to withstand the typical Martian environment, but everyone is worried that a storm may come through and break them one day. Inside of the colony, there is a main control pod which is in charge of communicating with mission control, as well as patching through connections from specific organizations or countries to whoever the message may concern.

Looking forward, upkeep of infrastructure and transparency of communication may influence the outcome of the colony. While nothing concrete has been said, there is a sentiment among many colonists that something sketchy may be occurring during private calls between some people and their employers back on Earth. If that is true, or even if it isn't and gains enough traction, conflict may occur. As for upkeep, it is currently being taken care of by humans controlling the drones that set up the pods or, as a last resort, a colonist making the full day excursion to take care of the issue by hand and return. While the drones are in good shape for now, they will not last forever. Research needs to be done to create new drones or a resupply shipment will need to bring them. Another option which has been mentioned is a more efficient way of travelling to the dishes which would make in-person fixes more viable. The main goal is to ensure that communication stays up because if it is down for an extended period of time, that means the colony is presumed dead and if you are presumed dead, that means no more resupply shipments.

Questions to Consider

- How much time/energy should be put into researching new drones?
- Should private calls be allowed? Should people be required to release what was discussed?
- Is it better to continue use of drones or to create a transportation system?
- What should be done in the event of infrastructure breaking, inside or out?

**Topic 1b: Food and Water**

Food and water are the most essential resources on the colony. The original shipments provided enough food for the colonists to last until they could begin to provide for themselves. The most recent resupply has begun to send food which is marked as "For Emergency Use Only" because the crops which are being grown should be ready for harvest, meaning that there will be less food supplied by Earth. On the other hand, there has not been a resupply of water since the beginning. It is much more difficult to transport water because of its weight and space required. There is enough for every person, and a little more in case of an emergency, but not nearly enough if a large scale issue were to occur. The main worry about water is that on Mars water boils at melting temperature. If a crack were to appear in the water pipes, any water which came in contact with the atmosphere would immediately evaporate. There is a large amount of frozen water on Mars, but it needs to be mined, brought back to the colony, and purified before it can be consumed.

There was a recent harvest and a resupply is imminent, which means food should not be an issue immediately. While there was a harvest, some of what was harvested need to be used by the farm as seeds and not all of the resupply is food. Many colonists are also worried that the "For Emergency Use Only" food means that Earth is beginning to phase the colony out of assistance. While everyone understands why their diet is vegetarian, some would like to begin breeding animals on the colony, but most people are certain the food and water situation is too precarious. On top of this, there is the looming consideration of children on the colony. There is a no-child policy in place, but the risk always exists and there is most certainly not enough resources for a pregnant mother or her child after it is born. Water is channeled from where it is used through a system of drains to a purifying center and reused throughout the colony. There are no issues with cracks currently, but everyone understands what would happen if cracks appeared. Evelyn Almeida Dias is in charge of mining frozen water and bringing it back to the colony, but some worry that her past means she may not be the most trustworthy for this job. It is necessary for improvements to be made so that GMOs can provide more food and ice mined so that there will be enough water that one day the colony may expand.

Questions to Consider

- Should increasing the quantity of food or water be the colony's focus?
- What will the colony do if Earth is beginning to phase out resupply shipments?

**Topic 1c: Public Opinion**

This group of leaders in the colony needs to be cognisant of public opinion from both the colonists and the people on Earth. The 34 colonists who are not represented on this board look up to you to ensure their safety, security, and survival. You are not only their companions on this missions, you are also their bosses. People are naturally worrisome and there is more to worry about when they are living on a planet that is not naturally their own. People on Earth are also curious about what is happening on the colony. Many governments have invested large amounts of resources to people living on a faraway planet, just hoping that the people there can survive. Continued support of the mission is dependent upon the citizens of Earth believing that progress is being made by those living on Mars.

As of now, the colonists on Mars only have concerns about many issues, but if the body does not assuage those concerns, there is worry that colonists may create an internal issue that would put the future of the colony at risk. Each person on Mars is highly trained and educated. This means they are all aware of how precarious the food and water situation is. Shipments from Earth mean that there is no shortage, as was earlier mentioned, but if something were to happen, the body would have to both solve the shortage and handle a large group of angry colonists. Back on Earth, people are already skeptical of sending supplies to Mars and hoping for survival. Many believe that resupply shipments should be funded entirely by private corporations.

Communication from the colony showing that the first harvest has been successful and agencies around the world asking for time to establish the colony before looking for returns have prevented large amounts of criticism. While the space agencies are supportive of the colony, home governments and companies are looking for return on investment to continue sending supplied to Mars. Every sponsor of a colonist is looking for some type of economic upside, such as a monopoly of a specific resource on Mars. Because of this pressure on the colonists, the colony must drive advancements in areas such as technology, agriculture, and medicine.

Questions to Consider

- How can the body assuage the fears of colonists not present?
- What is an appropriate balance of actions to gain public support vs action to improve the colony?
- What would the colony do if public assistance were to end?

**Topic 1d: Maintenance, Upkeep, and Sustainability**

Life on the colony is far from the idyllic "Star Trek"-esque vision of the distant future. Machines wear down, parts need replacing, and things get dirty. On a planet where every drop of water and molecule of air is valuable, even a dent in a wall or leak in a water pipe has potential to spell disaster.

Unlike food, the colony has not means of independently producing many of the items essential to survival. Medicine, electronics, and machinery are all impossible to manufacture on any large scale on the colony, therefore necessitating the regular supply ships from Earth. When something breaks, it breaks, and without adequate parts and materials it stays broken. It is always possible to jury-rig a temporary solution, but the quality and service life is questionable at best. Moreover, nobody can be an expert at everything; most staff members could repair a wall breach or patch a space suit, but more complicated tasks like solar panel maintenance or communications troubleshooting required trained personnel.

On the topic of personnel: While the death of any colonist is tragic, there exists a redundancy built into the structure of the colony. Most essential roles (and many non-essential roles) can be fulfilled by at least one other colonist, and while the death or otherwise incapacitation of any colonist is a tragedy, this does not and cannot mean the end of the mission. Barring extreme circumstances, sending replacements from Earth takes almost a year and a huge amount of money, and if a member of the advisor board is not able to fulfill his or her duty, another colonist will have to take their place (perhaps permanently, perhaps not).

The great deserts of Mars are perhaps the most ambitious frontier humans have yet to settle, and present several challenges. The surface temperature ranges from 20 C at high noon to well under -100 C at night. Dust storms rage across the surface with speeds exceeding 100 km/hr, blowing micrometer-sized particulates at startling speeds. Much like the moon dust of the Apollo missions, martian sand and dust corrodes most materials at an alarming rate, and if inhaled is likely to lead to lung damage (although there has fortunately been no severe cases since arrival). But perhaps most importantly, the Martian atmosphere is a hundredth as dense as Earth's, with what little gas exists being over 95% carbon dioxide. Exposure to this atmosphere without protection will result in death within a matter of minutes, through a combination of asphyxiation and organ rupture. Perhaps ironically, this atmosphere is one of the colony's greatest assets; the CO2 in the atmosphere can be combined with hydrogen to produce methane-based rocket fuel, oxygen, and energy, eliminating the need for vital resupply ships to carry return fuel (and thus drastically reducing the cost of sending said ships).

Questions to consider

- How many and how much resources should the colony dedicate to maintenance and upkeep?
- Is the colony adequately prepared for emergency scenarios

**Character Bios**

1. Charles M. Jones
    a. National Aeronautics and Space Administration (NASA) Representative
    b. An astronaut from the United States of America, born in Granville, Ohio. 34 year old white male, who spent 10 years in the United States Navy as a Naval Flight Officer. After his Honorable Discharge, he joined up with NASA in the Flight Systems Training and Operations department. Jones was selected for the colonization effort by NASA due to his service record, and being extremely proficient with Motion Control Systems.
2. Adam Ignatiev
    a. Roscosmos State Corporation for Space Activities (Roscosmos) (Russia) Representative
    b. Born to a well-off family in Saint Petersburg, Russia, Adam Ignatiev is a 37 year old male scientist representing the Russian space agency Roscosmos. Ignatiev spent his youth in Saint Petersburg, and attended Saint-Petersburg State University for 5 years, graduating with degrees in physics and mathematics. He then left for the Moscow Institute of Physics and Technology, where he has spent the past 15 years researching radioactive thrust technology, with little success. Ignatiev hopes that the unique martian gravity will render better experiments. He's an aloof, 'absent-minded professor' type whose life of relative disorder and chaos is punctuated by strokes of genius.
3. Ying Lai
    a. China National Space Administration (CNSA) (China) Representative
    b. A major and vocal leader of the Chinese expansion into extraterrestrial zones, Ying Lai has pushed the CNSA into developing beyond their original goal of industrializing the moon. Born in the industrial city of Shenzhen in 2002, Lai grew up around heavy, high-tech industry, which greatly benefitted from the Chinese Green Energy boom. With this came economic stability, and then certainty; soon Lai was able to attend Shenzhen Polytechnic. With a doctorate in Industrial Engineering with a focus in Manufacturing from Beihang University, Lai is determined to make the mission to Mars a success at any cost. While on the older side of the age spectrum at 45, few have similar determination to ensure the continuation of the colony.
4. Cassio Faletti
    a. European Space Agency (ESA) (Europe (Italy)) Representative
    b. Born in Florence, Tuscany, and received his PhD in Aerospace Engineering from the Polytechnic University of Milan. He began working with the ESA with the Cyrus program when he was 39, and contributed to the joint effort between NASA and the ESA following the Orion program. He has a tendency to quote Shakespeare, but is an extremely mechanical

mind. Faletti manages to take apart and rebuild entire machines in his free time at work, when he isn't managing different projects for the ESA.

5. Priya Gupta
    a. Indian Space Research Organization (ISRO) (India) Representative
    b. Born in Kolkata, Priya is a 36 year old Indian woman currently heading the ISRO research efforts on the Mars colony. She received her masters in Infrastructure Engineering at the Indian Institute of Technology Bombay, and began working for the ISRO after years spent doing humanitarian aid in India's poorest areas. Due to years spent helping in overpopulated areas, she is staunchly in favor of the no-child policy enacted on the colony. Many are concerned that she puts this before her own duties, but she remains a respected member of the mission.
6. Kato Takeichi
    a. Japan Aerospace Exploration Agency (JAXA) (Japan) Representative
    b. A Japanese scientist, Kato Takeichi was born and raised in Tokyo. Attending the University of Tokyo, Takeichi graduated with a masters degree in both biology and aerospace engineering. He began working for Takeda Pharmaceuticals developing more efficient ways to produce medicine, eventually leaving the company due to disputes over ethics. Eventually, he found his way to JAXA who employed him for his technical skills and efficiency. Kato's eagerness to expand his scientific knowledge led to him applying for the colonization efforts, and due to his scientific accomplishments was selected by his superiors.
7. Yami Patel
    a. Director of Utilities - Colonist, India
    b. Yami is a quiet and hardworking individual, rarely saying more than what she believes is necessary. Born as the youngest of 5 children, Yami grew up in Mumbai. Often observing her siblings arguing about broking toys, she would resolve the dispute by quietly fixing the item. While her family was loud, Yami always dreamed of the stars and finding peace among them. She attended the Indian Institute of Technology, Bombay, and received a degree in Mechanical Engineering. She worked to maintain infrastructure with the ACK Infrastructure Service after college, but her childhood aspirations of space led her to apply for the Mars colony. Selected by the ISRO, Yami is dedicated to maintaining the colony as best as possible.
8. Barbara Koenig
    a. Director of Agriculture - Bayer AG (Germany)
    b. The eldest of three children born to German farmers, Barbara was often tasked with maintaining the farm from a young age, when her father began to suffer from alzheimer's. The northern German farm produced grains and vegetables, and Barbara used her free time to gain a degree in Agricultural Sciences from the University of Kiel. Eventually, she managed to earn a

master's degree from the university which she used to apply for a job at Bayer AG. Eventually she was hired for the company's plant biotechnology division, where she became a standout in her field due to her excessive amounts of first hand experience. At 42, she was submitted as Bayer's representative to the Mars colony.

9. Lee Qiu
    a. Director of Energy Production and Storage - Jinko Solar (China)
    b. Operates and maintains large scale energy production (solar power plants) and storage (Lithium battery power banks)
    c. Lee Qui is a 44 year old Electrical Engineer hailing from Beijing, China. Fascinated by technology from an early age, Qui jumped at the chance to attend Tsinghua University, and graduated with degrees in Electrical Engineering and Mechanical Engineering in a short 4 years. From there, Qui was swept into the Chinese green energy revolution, and in a few years became a top engineer at Jinko Solar. Returning to Tsinghua University to complete his Master's in Solar Engineering, he lept at the chance to integrate cutting-edge photovoltaic panels on CNSA spacecraft. Equal parts ingenuity and practicality, Qui is resourceful and tactful, and somewhat addicted VR simulations and games. He is tasked with maintaining and expanding the several solar power plants, as well as the vital lithium battery power banks.
10. Jeannine Sauvé
    a. Director of Interplanetary Communications - Thales Alenia Space (France)
    b. Born in the capital city Paris, France, in 2015, Jeannine has had one passion and desire all her life - cooking. Ever since she was young, she dreamed of working alongside her culinary idols, like Auguste Escoffier, Julia Child, and Gordon Ramsay. Despite her best efforts, Jeannine narrowly missed the cutoff for Le Cordon Bleu; frustrated, depressed, and dejected, Jeannine succumbed to her backup plan: the field of communications. Today, she is an experienced communications director, having worked in the field for 20 years. She received a business degree from HEC Paris, and began working for HR in Thales Alenia Space. Jeannine eventually moved up based on her ability to maintain communication with all levels of the company, and became the Director of Communication. When TAS signed on as a major sponsor of the Mars colony, Jeannine was signed up immediately as a candidate for interplanetary communications.
11. Phillip L. Taylor
    a. Director of Interplanetary Logistics - SpaceX (USA)
    b. In charge of coordinating the arrivals and departures of resupply rockets, and monitoring orbital periods of Earth and Mars
    c. One of the youngest of the colonists, Phillip L. Taylor is a 29 year old Aerospace Engineer from Omaha, Nebraska. Hard working and practical,

Taylor graduated high school with high marks and attended the prestigious University of Illinois, graduating with degrees in aerospace engineering and supply chain management. He then was recruited by the thriving company SpaceX, where he worked grueling 100-hour work weeks as a launch engineer for 2 years, after which he was promoted to senior design engineer, and a year later to director of the Cape Canaveral launch facility. Showing a huge aptitude in both technical fields and logistics, Elon Musk was impressed enough with Taylor's efficiency to put him at the top of the short list for Mars representatives. Now as the Director of Interplanetary Logistics, Taylor must maintain the facilities to launch and receive the vital supply ships to and from Earth, as well as coordinating the necessary launch schedules and timetables. A bit high-strung and paranoid at times, Taylor is baffled at how well things have turned out for him, but isn't one to take this opportunity for granted.

12. Oliver Wilkins
    a. Director of Security - G4S (UK)
    b. Heads the effort to maintain levels of peace throughout the facilities, G4S was chosen through an election of involved space agencies.
    c. Originally from Bristol, England, Oliver Wilkins moved to the Duke of York's Royal Military School shortly after his 11th birthday, staying until graduation. After 7 difficult but successful years, Wilkins graduated and moved to Welbeck to pursue an Officer's position in the British Army, and after graduation served two tours in Syria: the first as an a Captain, and the second as a Forward Air Controller in the SAS. But Wilkins wasn't satisfied with a quiet civilian life, and afterwards signed on to the Private Security Contractor G4S. This took him around the globe, but Wilkins eventually found himself assisting Roscosmos to recover landed astronauts in Kazakhstan. With a lot of skill and a few connections, Wilkins played a major role in securing G4S a Martian security contract, and now acts as the Director of Security. As Director of Security, Wilkins and his small G4S security team are responsible for maintaining the peace throughout the colony, both as a preventive measure, and if necessary, and active one. A no-nonsense, serious fellow, Wilkins sees Mars as a new frontier for him to protect.
13. Albina Belyakova
    a. Director of Health - Colonist (Russia)
    b. Manages health and wellness facilities, in particular a clinic and hospital. Also provides medicine, and is responsible for planning the colonists' diet and general health maintenance.
    c. Albina Belyakova is a 55 year old Russian immigrant of Ukrainian descent. Born in Sevastopol in the Crimean Peninsula, her family relocated to Volgograd shortly after Russian occupation in the early 21st century. Although heartbroken at the loss of her homeland, this turned out

to be a blessing in disguise for Belyakova; she was able to attend Volgograd State Medical University, and earned her MBBS a short six years later. She then traveled to the United States to earn her MD at Harvard Medical School with a focus on neurology, and for the past 20 years served as a Flight Surgeon for Roscosmos, and as a neurosurgeon for the Mayo Clinic. Kind but impulsive, Belyakova is tasked with managing the on-site clinic and surgery, as well as maintaining the overall health of the colony.

14. Evelyn Almeida Dias
    a. Director of Mining Operations - Vale SA (Brazil)
    b. Highly respected and feared, Evelyn arose from obscurity in Brazil's favelas. Starting out with Vale as a Surface Labourer, she quickly moved up to an overseer position in one of the company's processing plants. Her superiors were enthusiastic about her approach to running plants when she managed to double production, but rumours of blackmail and threats to employees to reach this goal circulate nearby facilities. When selected to oversee mining operations on the Mars Colony, many wondered if she had become too cutthroat to keep on Earth.
15. Sarah D. Gibbs
    a. Director of Research Coordination - Colonist (USA)
    b. Sarah Gibbs is an average American lawyer, dry, humorless, and very short-tempered. She excels at resolving disputes over legalities, due to her Law Degree from Harvard Law school and years spent with arbitration law. Originally from Nebraska, she moved to California after receiving her JD with her husband and only child to work in arbitrating between businesses. After clearing up arguments between several large scale companies in the area, NASA offered her a position aboard the Mars initiative to maintain the peaceful coordination of the different scientific researchers.
16. Irina Alekseyeva
    a. Director of Interior Colonial Affairs - Colonist (Russia)
    b. Manages and directs large-scale day-to-day life of the Mars colony, as well as resolving minor interpersonal issues between colonists. This position is elected by colonists
    c. Irina Alekseyeva is a 35 year old woman who hails from the northern Russian city of Norilsk. A longtime blue collar worker by trade, Alekseyeva has spent the majority of her life working on and later managing large-scale construction and industrial projects in the subarctic Norilsk. Her hard-working nature in extreme environments landed her on the short list of general staff for the Mars colony. Her management and leadership experience combined with a tough-as-nails resolve and heart of gold has earned Alekseyeva the hearts and minds of her fellow working colonists, and as a result has been elected as the Director of Interior

Colonial Affairs by her peers. As Director, Alekseyeva represents the working Colonists in the committee, and she is tasked with managing the day-to-day life of the overall colony as well resolving any interpersonal issues between the colonists.