

# Mars Treaty-making Workshop Results From ISU SSP14

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In light of the expanding robotic and impending crewed exploration and settlement of Mars, participants at the International Space University's 2014 Space Studies Program held in Montreal, Canada, will act as governmental delegations to create a draft text representing a new international treaty regime for Mars. This is the second year the ISU SSP has conducted this Mars Treaty-making Workshop, and is done in conjunction with the SSP14 Space Policy, Economics, and Law department. Some nations have ambitious plans for Mars colonization, while others intend to commercially mine the red planet's rich mineral resources. The majority of delegations, however, hold fast the provisions of the 1967 Outer Space Treaty, whose Article II mandates that "*outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.*" Can these tensions be resolved in

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a single treaty for Mars? This Paper will present the findings of the ISU SSP participants, including both their impressions and lessons learned from the simulation of international intergovernmental negotiation, drafting, adoption, and related treatymaking experiences, and the substantive legal innovations they find applicable for a new legal regime for Mars.

## **1 Introduction**

The International Space University (ISU) is a private, non-profit institution that provides graduate-level training to future industry leaders of the global space community. Founded in 1987, the University has graduated over 3,700 student participants from more than 100 different countries worldwide. The University incorporates international, intercultural, and interdisciplinary characteristics in its programs, to broaden the participant's perspective and understanding of the global space industry. The University covers a wide range of disciplines, including space science, space engineering, space applications, space policy and law, space business and management, and space humanities.

ISU offers students two educational options, a Masters of Science in Space Studies and a postgraduate program, the Space Studies Program (SSP), which is its flagship program. SSP is an intensive nine-week program held annually in a different country, during the Northern Hemisphere's summer. The SSP is comprised of three phases; core lectures, department activities, and the team project. Participants are also given a selection of workshops to select from and participate in, and the opportunity to be involved in various departmental workshop activities. These focused workshops allow the participants to further explore specific aspects of the space industry. One of the many workshop activities for the SSP 2014 session (SSP14) was to simulate the drafting of an international treaty for Mars.

This workshop supported ISU's efforts to educate participants regarding space policy and law. It was an educational exercise that simulated a United Nations (UN) Committee on the Peaceful Uses of Outer Space (COPUOS) meeting. Given planned missions for crewed exploration of Mars, and the differing opinions on space activities present today, it is conceivable that such a meeting to draft a Martian treaty has the potential to take place in the near future. The workshop's participants represented different UN COPUOS government delegations as they expressed their political stances, debated relevant issues, and negotiated positions to mature the state of the draft treaty.

The purpose of this paper is to present the findings of the ISU SSP14 participants, as they worked through the realistic simulation. Within this paper, there will be a conveyance of the participant's impressions and lessons learned from the simulation of international intergovernmental negotiation, drafting, adoption, and related treaty making experiences, and the substantive legal innovations that were found applicable for a new legal regime for Mars.

## **2 The Process**

### **2.1 Initial Organization**

Prior to the Mars treaty workshop and the mock COPUOS proceedings, each of the delegates were given the background reading material for their respective nations. The material outlined the broad stance of each participating nation, along with drafts provided by the Russian Federation and by the United States (hereafter referred to as the Russian and US drafts) for review and reflection.

The delegates met in the early morning and convened in a room that acted as the assembly hall. Printed copies of both drafts, supporting prominent legal materials, and a sign to clearly identify each country were made available. The room's set up limited each delegate to face forward, towards the COPUOS Chair, which acted as an impediment to conversation. For delegates to talk to one another, it was often necessary to turn away from other delegates from a different nation which was not conducive to open debate.

In total eight countries (i.e., Australia, Austria, Belgium, Canada, China, Russia, United Kingdom (UK), and the United States (US)) were represented during the simulation workshop. It was necessary for several delegates to represent nations not of their own origin in order to include the most prominent nations typical to COPUOS affairs. Where possible, attempts were made to ensure that each nation was represented by at least two delegates, to allow for varying perspectives, brainstorming, private discussions, and participation in the wider debate. The delegation of Russia was comprised of non-Russian participants while the Chinese and US delegation, representing the other two often most prominent nations in the space sector, were comprised of nationals.

### **2.2 Description of Country Stances**

Before continuing with a description of the process, this section is dedicated to summarizing the views and motivations of each of the represented nations.

#### ***Australia***

Australia's stance towards Mars was that of environmental preservation, not only to retain the validity of scientific investigations on a pristine world, but also due to Mars' intrinsic value. The destruction of swathes of Mars' surface for economic or social benefit without controls would demonstrate an attitude that places no value Mars in itself. The governance of any Martian settlement was also on Australia's agenda, in both the overall governmental system and enforcement of laws and treaties. The country was less interested in commercial and military applications on Mars.

#### ***Austria***

Austria's position is that of an emerging space power and as such, it would like to see Mars preserved for scientific investigations in the future. It is

concerned by the emergence of larger private entities who may get to and alter the surface before such investigations can be carried out.

**Belgium**

The Belgium contingent were neutral throughout the debates and had no predetermined stances on any of the topics of discussion.

**Canada**

The Canadian delegation were in support of establishing permanent settlements on Mars under the condition that the mobility of people living and working Mars be restricted to designated areas. The main concern of the delegation was to balance the maintenance of a pristine environment for scientific investigations and the utilization of private enterprise to efficiently exploit Martian resources. The delegation was in support of including settlements as autonomous entities in future decision-making processes regarding the governance of activities on Mars.

**China**

The Chinese delegation did not actively participate in the workshop. The delegation did however demonstrate an alignment with the Russian draft treaty proposal. Additionally, China was against facility inspections, similar to the US, and against private commercial activities taking place on the planet.

**Russia**

The Russian representatives' discussion was influenced by historical resentment as US and Russian delegations showed distrust towards the other's stance and intentions. Ecological and scientific topics of Mars exploration were less interesting to the Russian delegation, which mostly tried to stop the US initiating commercial activities on Mars. The most disputed issues between Russia and the US were proposed commercial activities, Mars governance, and facilities inspection. Russia was against any commercial activities on Mars claiming that the financial results would not be used for the good of all of humanity.

**UK**

The outlook of the UK was to push for the allowance of commercial activity upon Mars. The UK also wished to ensure that appropriate requirements would be put in place to limit or forbid contamination of the Martian habitat outside of agreed areas of industrial activity in order to preserve regions of scientific interest.

**US**

The US was one of two countries (the other being Russia) to present text for a draft treaty for Mars. The US aimed to establish peace on Mars by

preventing militarization and use of force, but it did not prevent military personnel from being on Mars. The US's stance on the prevention of national appropriation was congruent to that of the Outer Space Treaty. Other key stances of the US included the assertion of rights to profit from Martian resources and the preservation of certain areas of Mars for scientific use only. Another key element of the US stance was that only states that have citizens on Mars would be able to participate in an administrative council for all strategic and administrative decisions on Mars.

### **2.3 Meeting Proceedings**

Two major roles in the overall process were the role of the Chair and later, in the working group session, the moderator. The Chair, Christopher Johnson, Project Manager at Secure World Foundation, was responsible for opening the session and reading the supporting materials describing the setting and context of the workshop. Mr. Johnson has spent time working at the United Nations Office for Outer Space Affairs in Vienna, Austria.

Immediately following the opening of the session, the Chair invited the three nations (US, Russia and Austria) with prepared opening statements to address the wider delegation. Following this, the floor was opened to the delegates for a general expression of views between nations and for the decision of which of the proposed drafts would be used to establish the basis for discussion.

After an intense debate between delegates over the appropriate wording of each of the treaties, it was decided by majority vote, that the draft proposed by the US would be used for the initial template for the Mars Treaty. The next step in the process involved the Chair reviewing each of the articles proposed within the treaty, by asking each country's delegates their views on content and how it could be improved to reach agreement. There were instances where a consensus was reached and the article was notated as agreed, whereas for most articles, very little agreement was reached. The exercise of proceeding formally with an initial run through of the document allowed the delegation to more clearly understand the opinions of the other nations and also refine the focus of the working group.

### **2.4 Working Group**

After the initial run through of the document, the decision was made in the interest of time and transparency, to develop a working group that would focus on discussing major showstoppers, openly working through solutions for producing agreed language within the Mars Treaty. To proceed at an increased pace, a level of formality was removed by appointing a member of the delegation (i.e. a UK delegate was chosen) to moderate a more open and less formal debate on each article, in a working group setting rather than the formal session, held in the earlier part of the day.

This format allowed the team of delegates to advance through the areas of contention within the treaty more quickly, without the time consuming

formality of earlier in the day. There were several articles where consensus was able to be reached through a quick exchange of views. As described in the following section, there were a number of topics that it was difficult to reach agreement on. While the pace at which the treaty was ratified was an improvement, there was the amplification of another problem; the overshadowing of quieter delegates. In some instances this may have been individual personalities, but it was clear that for some cultural backgrounds, the fast-paced working group environment was difficult and it hindered their contributions to the debate. This was likely a large contributing factor to very little input from the workshop's Chinese delegation.

As the working group progressed, the need to make timely decisions became more pressing. As a result, the delegates were vested in completing the review of the document and some points of discussion and opinions were agreed more easily. Nearing the end of the exercise, this became a disadvantage to the outcome of the Treaty; more time was needed in order to reach a consensus on the remaining article and it is possible that some agreements were rushed.

### **2.5 Formal Recap of the Draft and Closing Statements from the Chair**

At the end of the working group session, the remaining time was allotted back to the Chair to resume official proceedings. The draft was read through by the chair in order to recap the agreed upon articles to the delegates in order to verify and ratify each of them in order. The Mars Treaty workshop was wrapped up with was a closing statement from the Chair, summarising the progress of the day and thanking each of the delegates for their attendance and work on the Mars Treaty.

## **3 Major Points of Discussion**

The group's discussion was guided by several major points that can be grouped into the following three categories: property rights and the role of the private sector; creation of reserve areas on Mars; and governance mechanisms. Issues related to each of these categories provoked significant negotiation discussions between the parties. The following section describes the issues in the context of the simulation and presents the group's preliminary thoughts on possible solutions. A final section will be offered to summarize major issues going forward. It is noted, however, that actionable proposals to extend a legal framework to activities on Mars is left for future work.

### **3.1 Property Rights and the Role of the Private Sector**

The articles written in the US and Russian draft Mars treaties led to conflicting positions on whether private sector actors should be allowed to appropriate resources on Mars. Article 5.3 of the US draft Mars treaty states that property rights, as defined in their draft treaty, are sufficient to establish protection for consortiums of people, including international organizations and corporations who wish to operate on Mars. Article 2 in the Russian draft Mars treaty

explicitly states that all commercial and private appropriation of resources on Mars is prohibited. As a result, a point of disagreement in the discussions was the extent to which public and private actors should participate.

The main concern raised during the discussions was whether the motivation of corporations was antithetical to the preservation of the Martian environment for scientific study. It was believed that there is an inherent conflict of interest between the profit-seeking orientation of private actors and the effective preservation of the Martian environment, which led to a group support for strong regulation to mitigate this risk. In relation to this point, participants agreed that an international organization would likely be the best actor to lead a system for land appropriation. The goal of this organization would be to create a desirable balance between the exploitation of in-situ resources and the preservation of the Martian environment, for ethical, aesthetic and scientific purposes.

There was, however, a general group desire to include private sector actors due to their ability to raise capital and operate efficiently. Towards the end of the simulation countries initially opposing commercial or private appropriation of resources acquiesced to acknowledge a role for private sector actors, albeit under strict supervision and a high degree of transparency to a governing authority. As a possible solution the group saw the UN as the most suitable candidate to provide oversight. One potential concern, as discussed by the group in relation to these conditions, was the protection of a company's intellectual property when demonstrating compliance to a governing authority. However, due to time constraints, no details on the responsibilities or authority such a position would assume was discussed at significant length.

### **3.2 Creation of Reserve Areas on Mars**

Protecting the Martian environment against contamination was a central concern for the group. To address this concern, the participants representing the Austrian delegation, whose core interest was to maintain a pristine environment for scientific discovery, proposed creating reserve areas on Mars. Creating reserve areas were well-received by the group and led to lengthy discussions on how to designate and manage reserve areas.

In regards to designating areas as having scientific interest and managing reserves, several problems were identified. It was recognized that the allotted time for scientific investigations was positively correlated to the opportunity cost of delaying the exploitation of resources on Mars. It was therefore acknowledged that the time allotted for scientific investigation must be predetermined with clearly defined guidelines so as to balance the needs of the scientific community with the benefits of resource exploitation. This was viewed as a necessary mechanism to retain incentives for private ventures to set up operations on Mars. The organization that could declare areas as reserves, however, was not established, although the UN was again seen as the most suitable candidate.

Historically, growth, development, and land use planning are functions of the state. The state goes through a process of allocating land based on both human needs and environmental factors, separating uses such as preserve, residential, or manufacturing or mining. These recommendations are based on long term research and investigations into a parcel before opening it up to public or private development.

In the absence of such a governing body, the land and resource management of Mars is ambiguous, and there are several value systems which can be applied to the development of the planet. The essential debate questioned the rationales for private or national development over the establishment of international preserve on Mars.

Humanity has used, cultivated, and developed the resources of the planet Earth for its entire history, and has taken some claim to the use of resources for both survival and for prosperity. While some cultures have emphasized the sustainable use of land for many centuries, politically, interest in the preservation of the environment has only been a recent development, beginning after effects of the industrial revolution, and escalating to major developments in environmental policy in the 1960s. Rationales for the preservation of natural lands on earth has stemmed from argument of cultural or natural heritage, environmental stewardship, aesthetic or cultural values, emergency resource reserve, and as a peacekeeping measure.

UNESCO World Heritage sites are decided by both cultural and natural criteria. While major works of human civilization may not be relevant on Mars, natural criteria as described by the Convention Concerning the Protection of the World Cultural and Natural Heritage of 1972:

V. "contains superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance"

VI. "is an outstanding example representing major stages of Earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features"

VII. "is an outstanding example representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems, and communities of plants and animals"

VIII. "contains the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation"

On Mars we might consider what is necessary from the point of view of science or conservation. Can we say with certainty what portions or parts of the planet could have sustained life, or what we might likely contaminate by development? Does this definition of cultural heritage apply to the entire planet? Can we still develop parcels of land within the reserve?



On the North American continent, investment by the government in creating national parks and nature preserves had yet other rationales. The National Park Service Organic Act of 1916 created a national park service “to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” This emotional or aesthetic attachment to the land implies that natural land exists for the enjoyment of humanity, not particularly for environmental conservation. The same kind of nostalgia may exist for the Martian landscape, however this kind of policy does not impede development on the entire planet, but may indicate only some reserve areas.

The Antarctic Treaty of 1959 had yet other rationales, stemming largely from land grabs made by the US and Russia following WWII<sup>1</sup>. The treaty in this case nominally called for scientific research as a major rationale, however the preservation of peace was significantly emphasized “recognizing that it is in the interest of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord.” In many ways this treaty resembles the proposed Martian version, in Article I stating: “Antarctica shall be used for peaceful purposes only. There shall be prohibited, inter alia, any measures of a military nature, such as the establishment of military bases and fortifications, the carrying out military manoeuvres, as well as the testing of any type of weapons” while allowing the use of military personnel and equipment for scientific or other peaceful purposes.

While all of these rationales could be present in a treaty governing land use policy, the important distinction between a policy on Martian land use is the extent to which any development at all is a threat to the contamination of the planet by the biology of our own. Do we consider the planet as another extension of the same way we treat land use on Earth, its potential chemistry and biology no different than any new species or environment we would discover in Earth’s most extreme regions? Or is Mars inherently special?

It is clear that such an attitude towards appropriate rationales for the development of Mars would guide the development of property rights on the planet.

Two possible solutions were proposed regarding establishing reserve areas on Mars. The first option was proposed by the Austrian delegation who advocated that Mars in its totality should initially be maintained as a reserve. Scientific investigation will take place within a predetermined amount of time to ensure nothing of scientific value is at risk of contamination within an area. Areas that have been studied will then be designated either as a reserve

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<sup>1</sup> Herber, Bernard. “Mining or World Park? A Politico-Economic Analysis of Alternative Land Use Regimes in Antarctica.” *National Resources Journal*, Vol 31, 1991.

or territory to become available for exploitation. The UN would be the organization responsible for making these decisions.

The second option, advanced by Canada, allowed commercial and private actors to be permitted only with a high degree of transparency. Should something of scientific value be discovered during the operations of commercial activities, operations must be suspended until cleared by the scientific community.

In both options the UN was seen as the most suitable organization to govern the administration of reserve areas. Once land use has been decided, further planning and development on Mars can follow one of two planning methods. In one model, all building or construction plans are submitted to a governing board that will investigate, approve, and debate individual properties before they can be constructed on a case by case basis. This planning strategy has been adopted by many municipal authorities.

One significant problem with this option is how to permit a sufficient level of oversight to establish a robust mechanism that can identify objects of scientific value. This is an important consideration that relates to a conflict of interest between the motives of corporations and the preservation of the Martian environment. The group thought that a proposed mechanism should consider how to compensate corporations for downtime costs should something of scientific value be discovered. It was noted that it is unlikely for any country or international organization to financially compensate corporations and this mechanism needs to be considered in more detail.

### **3.3 Governance Mechanisms**

Establishing a governance mechanism is affected by numerous factors and as such a large amount of time was devoted towards outlining criteria must be met to create a mechanism capable of overseeing compliance of Martian colonies to Earth-based treaty obligations.

As a starting point, the initial US and Russian draft Mars treaties advanced different governance mechanisms to organize the various activities on Mars. Article 5 in the Russian draft treaty states that the launching state will retain liability as outlined in the Liability Convention, and that the compliance obligations of an international intergovernmental organization that carries out activities on Mars will be borne by the international organization and States party to the treaty participating in that organization. Article 6 in the US draft treaty provides an alternative by suggesting that to establish an administrative council with representatives from States party to the proposed treaty only if the State has its own citizens on Mars at the time.

In addition to managing reserve areas, the delegation saw the inspection of Martian facilities as a key responsibility for the governing body. Specifically, these inspections would be used to ensure compliance with the prohibition of establishing military facilities on Mars. There was, however, a hesitance by the US to grant inspectors full access to their facilities citing concerns of espionage and intellectual property rights. The Russian delegation accused

the US of having bad intentions in this issue. Other delegations were more receptive of having full access inspections but emphasized the importance of having the UN lead these investigations to retain objectivity.

The involvement of local stakeholders, i.e. permanent colonies and settlements on Mars, in the decision-making process was also seen as an important issue by the group. Time constraints restricted an in-depth conversation on how to involve local stakeholders in any proposed governance mechanism, however their inclusion was seen as necessary for sustainability. One key example raised was how local stakeholders could exchange resources and future clarity on this point was seen as crucial.

Two solutions were proposed by the delegation. First, the International Atomic and Energy Agency (IAEA) nuclear facility inspectors were seen as a precedent with potential to ensure compliance with the prohibition of military facilities. It was acknowledged that the IAEA inspection style is not a perfect solution, however it was seen as the best terrestrial solution. The second option was to have an autonomous Martian authority led by the colonies and settlements on Mars. No consensus was reached on a complete governing mechanism.

### **3.4 Discussion Summary**

At the heart of the discussion was a conceptual difference on property, particularly in regards to land ownership and regulation of land use. This is a consequence of the differences between the US and Russian draft treaties, leading to disagreements related to property rights, reserve areas, and governance mechanisms. Due to the absence of an established governing body, land and resource management on Mars remains ambiguous. Clarification is needed to ensure a sustainable human presence on Mars.

Preservation of the Martian environment was the key issue in our discussions. The debate questioned the rationales of private and national actors in regard to the establishment of an international preserve on Mars. The group interpreted rationales for the preservation of natural lands on Earth as stemming from arguments of cultural or natural heritage, environmental stewardship, aesthetic or cultural values, emergency resource reserves, and as a peacekeeping measure. We conclude that a governing body to administer and manage reserves on Mars should be international and should hold the maintenance of a pristine Mars environment as a primary objective.

The majority of issues raised during the simulation discussions require legal solutions. It is noted that our discussion serves as an early deliberation, upon which actionable proposals to extend a legal framework to activities on Mars can be built. These proposals are left for future work.

## **4 Conclusion**

### **4.1 Reflections**

Since the workshop, the group have had time to reflect on and discuss the treaty writing session. There were five key issues which the group has

identified as limitations which would need to be addressed before any future sessions.

The first of the limitations was time. The group had approximately three hours to combine the proposed drafts and discuss any points of contention in open debate. The presence of a chair and moderator throughout the discussions was key in ensuring that the workshop proceeded and maintained its structure. Although no completed final draft was produced nor all discussions concluded, enough work was done to allow everyone to realize the challenges that the future writing of a treaty for Mars may face. The result was satisfactory for the workshop but for a real drafting of a treaty, this and the following limitations would be much more of a problem.

There were very few people in the room who had experience with space law and drafting treaties. This meant that for the first part of the session, participants were very cautious in their reactions and speech. Some of the smaller details, such as the etiquette of speech and phrasing of statements, slowed the discussion down during the more formal first part of the workshop. As participants became more comfortable with the proceedings and adapted to the atmosphere, participation in the discussion and debate increased. By the end of the working group session, the discussion was much more open and running smoothly.

At one point in the discussions, the point was raised that 'only the native English speakers were contributing to the discussion at that time'. This was one of the more major failings of the group. Some aspects of the treaty were more passionately debated and this led to faster speech. It was at these points that the group forgot that non-native English speakers required more time to translate and process the points which were made and thus the faster discussion was a major hindrance in their ability to contribute. After this point, there was some effort to try to improve on this failing but at times, conversation did again speed up and become less clear.

As the time began to run out and conversations became more heated, personal opinions took precedent over the positions of the relevant countries. Each person had been allocated a country and stance prior to the workshop and some time was taken to try and match people to the views of the country that they were to represent. In the initial formal discussions, it was easier to act the role and consider and portray the stance of the country. Once the working group section of the workshop began and the discussion became much less formal, the dynamic of the group changed and more personal views and opinions were presented and put into the draft rather than those of the country. The international aspect of the discussion was still present and different opinions did come across and were incorporated into the draft treaty but an awareness of this for any future discussions is necessary. In a more formal setting and as delegates of a country, this point would be much more important but in this instance, the group now understands how difficult this could be to maintain.

The final reflection is on the role of the moderator. Although the role of the moderator is to be impartial, it can be difficult to maintain as personal views may influence the structure and wording of the draft treaty for which the moderator had control. This effect is negated somewhat by the structure in which the discussion took whereby the draft treaty was being written in real time and projected onto a screen for the entire room to read and comment on. This aspect worked well as it did ensure clarity for the points and wording being discussed.

Overall, the discussion was good and the attitudes and perspectives of different countries came through. The major failing was fast and unclear speech which limited the contribution of some of the participants.

After the session, some members of the group had the opportunity to meet with ethicist, Jacques Arnould, to further discuss the future of a treaty for Mars. The group discussed some of the following points. The first was to correctly determine why a treaty for Mars is necessary. Mars is covered by the Outer Space Treaty but one of the realizations of the group were the overlaps and gaps between the Outer Space Treaty and the Moon Treaty that are open for exploitation. The purpose of a defined Mars treaty would be to close these gaps.

Secondly was the idea that the international situation may be very different in 10 years and thus a UN based structure, as we have proposed as a basis for other activities on Mars, may no longer be suitable. This then lead to the question of when is the right time to have a Martian treaty? There was no answer to that question but one thing that became clear was that the debates over concerns such as decision making on Mars, and reserves, need to start now such that processes can be put into place before humans reach the planet rather than leaving it to chance and letting the future laws on Mars be a result of the customs of the original settlers.

The last thought we were left with was the questions of why do we want to go to Mars and what are our goals and objectives of going there. These points must be kept in mind when drafting the treaty, while allowing for changes in the answers to those questions as time and humanity progress. The clear answer to these points was lost in the debate and a risk that this treaty faces is that states may be concerned too much with defining Mars' future and not losing opportunities rather than a treaty that will still be relevant as things change.

#### **4.2 Moving Forward**

The ISU SSP14 workshop, *Simulate the Drafting of an International Treaty of Mars*, was an educational experience that highlighted the nature, difficulties, and processes involved in international treaty composition. The mock COPUOS meeting allowed the participants, acting as government delegates, to engage in dialogue and discourse as they expressed, defended, and negotiated their countries' stance on Martian activities.

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Merging the two working drafts of the US and Russian delegations into one was the focus of the mock meeting. Key points of discussion were appropriation of Martian land, contamination, and inspections of facilities. The results of these discussions could result in actual legal innovations in future Martian treaties. Although a final solution was not achieved, the workshop helped the participants to understand some of the processes and difficulties of a COPUOS meeting. The participants noted the effectiveness of working groups as a means to further negotiations. Members of the group also arranged to meet a prominent ethicist, Jacques Arnould, to further discuss and clarify our thoughts on the process and purpose of the treaty. The authors of this paper believe that given the planned Martian endeavours by certain space organizations, the unprecedented nature of proposed activities, potential foreseen (and unforeseen) points of contention and negotiation, and the issues that can arise with a timely consensus of legal regimes, that the space community immediately consider starting the process for drafting an international treaty of Mars.