



Promoting Cooperative Solutions for Space Security

United Nations Conference On Disarmament

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It is with great pleasure and privilege that Secure World Foundation addresses the Conference on Disarmament this afternoon. We would like to thank the Algerian presidency for facilitating this meeting. At this time of potential consensus on a schedule of work, the Secure World Foundation is delighted to have the opportunity to contribute to the thinking of the CD on space security issues. We hope that delegates will avail themselves of our resources as an information source as space security issues come before the CD over the coming sessions.

The Current Situation

Since the turn of the century, space has become an ever more central part of the modern world. From remote ATM transactions to disaster monitoring to personal navigation, space is now a crucial part of both developed and developing world's infrastructure. It is a sector that is growing incredibly quickly and recently the international community has seen many smaller States become space faring nations. Coupled with this, the role of non-State actors, especially from the commercial sector, is ever increasing. This growth however, comes with key concerns for international peace and security. Space is a fundamentally globalised environment with critical national applications. As States become more and more invested in space resources, the concern for maximizing the safe and sustainable use of space becomes ever more pressing.

Obvious but Crucial Facts

Firstly, space is big. Very big. However, the portions of space that we currently derive the most benefit from comparatively quite small. Two key orbits – Sun-Synchronous Orbit (SSO) and Geo-Synchronous Orbit (GEO) - account for the vast majority of the current space applications, including almost all of communications and Earth observation. This conceptualization of certain

regions of Earth orbit as a limited natural resource is crucial to thinking about protecting the sustainability of such resources.

Secondly, objects in space travel extraordinarily fast. To put it in perspective, an object at the altitude of the International Space Station, approximately 350 kilometers, travels at approximately 6.7 kilometers per second. At that speed, a 1 centimeter ball bearing will easily penetrate through 5 centimeters of solid aluminum. Currently, there are around 19 000 objects larger than 10 centimeters in being tracked in orbit around the Earth. It is important to point out that this doesn't include all of the objects smaller than that size, which are estimated at more than 300,000.

The International Overview

As I said, space security is becoming ever more prominent as the world, developed and developing, becomes increasingly invested in space resources for military, economic and commercial undertakings. The challenges however for regulating such an environment from the point of view of disarmament are varied. What types of agreements or moves forward are suitable for such a quickly evolving sector? Is a major multilateral binding regime the most effective way forward and could a consensus be reached? Would a voluntary agreement on a idea such as a code of conduct lack sufficient weight to achieve the goal of a sustainable space environment?

Such concepts need further elucidation. Secure World Foundation would like to take this opportunity to commend the governments of the Russian Federation and the People's Republic of China on developing a draft proposal on prevention of the place of weapons in outer space, the threat or use of force against outer space objects. We hope that other such proposals will continue to be developed and that we will see further discussions on the appropriate way to proceed within the CD.

Relevance to the Conference on Disarmament

A key question is of course, why is this relevant to the work of the CD? Threats to spacecraft from a collision with debris have greatly increased and it is possible that humanity's long-term ability to carry out spacefaring activities may soon be in jeopardy. From a disarmament perspective, controlling potential conflict and weaponization in space in an effort to minimize potential degradation of orbits and thus, allowing all States to continue to benefit from the huge potential that space offers the global community, is firmly within the purview of the CD's mandate. Furthermore, Secure World Foundation believes that this will become an ever more central issue for the international community over the coming years.

Debris and the Peace and Security Uses of Space Assets

The use of space resources as a method in providing verification and information is a key tool in the stability of the global security climate. Satellites which can detect missile and space launches can be critical to provide warning and confidence. In addition, many States currently rely on remote sensing imagery to verify their security environment. The removal of these resources would have a significant impact on international peace and security as many of the actors using such imagery have no other means to gather such information. This should not be underestimated, especially in the field of nuclear security. It is vital that these resources continue to function in the long term.

In light of the fact that the loss of space resources would lead to a significant deterioration in the international security climate, we urge the CD to appraise itself of the debris situation, the threat that it poses to space resources and its relevance to international security.

The Necessity of International Cooperation

Space is a globalised arena. The activities of one actor can have significant effect on all other spacefarers. As such one should not, indeed cannot, exclude any spacefarer from the debate on the future direction of humanity's space activities. As use of space continues to grow, there is a need for international engagement of all players, established and emerging, on how we interact in space. Whilst space was once conceptualized as a vast emptiness, key orbits are getting ever more congested. In order to limit potential future conflict, international discussion is necessary on how we conduct ourselves in carrying out space activities and also how we as an international community will manage future space traffic. By its very nature, it is only through a truly global approach that effective safeguarding of space for future generations will be achieved.

Conclusions

To conclude, I would like to end with a key observation. It is imperative that the international technical community engage with international policymakers on the future direction of the international reaction to space security issues. Whilst one may be able to change the laws of man, unfortunately, one cannot change the laws of physics. Such a process will require cross-institutional engagement, not only within the UN system, but across the board.

Whether the international community as a group eventually decides to move forward on this issue through a multi-lateral treaty or through more novel approaches such as a code of conduct, we believe that the debate must be a highly informed one given the complex and unique nature of the space environment.

We are currently in the midst of a revolution in space activities as we make the transition from an era where space was dominated by State-sponsored activities to a new era where dozens of States, commercial providers, and non-State entities are engaging in a growing array of space

activities. Our use of space is only going to increase in the future as the barriers to entry fall and more and more actors realize the benefits. Securing such benefits in the long-term will require the building of alliances between civil and military thinking and between science and policy. We believe that the CD will play a crucial role in that process.

We stand ready to support the CD in any way we can as an information source and facilitator on space security issues. It is our hope that the delegates will avail themselves of such resources that we, and other organizations such as the United Nations Committee on the Peaceful Uses of Outer Space, can provide and that key elements of civil society, as focused specialists, will be able to continue to engage with the Committee in the spirit of this session.

Please do not hesitate to contact me if there any assistance, clarification or information which we may be able to provide now or in future.

Many thanks.

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*Secure World Foundation a private fully funded operating foundation which acts as a research body, convener and facilitator on space security issues. The foundation has three main themes: **space security** with a focus on exploring multilateral solutions to global space security questions; **human and environmental security** with a focus on maximizing global cooperative use of space assets and **planetary defense** specifically space governance on international decisions on Near Earth Object threats. The Foundation has offices in Colorado and Washington, DC in the USA as well an office in Vienna, Austria.*