



General Assembly

Distr.: Limited
29 August 2019
Original: English

First session
Agenda Item 5

Prevention of an arms race in outer space

Report of the Secretary-General

Summary

Space based technologies play an increasingly critical role in the maintenance and development of national and international infrastructures. Although space technologies are currently used in peaceful purposes, the increasing reliance in space based technologies has put the space arms race as an imminent threat in space security. Efforts took place to deal with this issue at an international level in the UN Conference on Disarmament, and have continued ever since.

The Prevention of an Arms Race in outer Space (PAROS) UN resolution restores the fundamental principles of the Outer Space Treaty and advocates for a ban on the weaponization of space. The resolution (re)enforces the treaty by recognizing and acknowledging that the treaty alone does not guarantee the prevention of an arms race in outer space, and further international efforts are needed. The resolution supports further measures to prevent an arms race in outer space by urging all state parties, mostly those with space capabilities, to comply with the objectives of PAROS.

Although the international community has seen fervent political and diplomatic actions in the prevention of an arms race in space, existing frameworks such as the Outer Space Treaty (1967) and the Moon agreement (1979) are insufficient for dealing with the challenges that we now face in the matter. This report study tries to investigate the challenges of PAROS; and recommend guidelines for achieving its goals in the years to come.

I. Introduction

1. From the beginning of the exploration of space in the 20th century, the militarization of space has been viewed as a real possibility. The onset of the Cold War and its consequent Space Race introduced the quest for developing military technologies in space. This resulted in international debate regarding the implications of the weaponization of outer space, which in 1981 led the conference on Disarmament (CD) to begin talks regarding the potential for a PAROS treaty. The CD established an ad-hoc committee on PAROS in 1985. However, the United States' continued opposition led to its impaired development, and it did not take place until 1994¹.
2. Since then, the issues that arise in PAROS have been continually discussed by the international community through the United Nations General Assembly First committee, the Conference on Disarmament, the Committee on the Peaceful Uses of Outer Space (COPUOS), the UN General Assembly Fourth committee, and the International Telecommunications union, among others.
3. The Conference on disarmament (CD) is a unique negotiation forum established by the international community to discuss disarmament agreements². It has 65 states members and 42 states as observers, and is based at the Palais de Nations in Geneva, Switzerland. Formed in 1979 as a single multilateral disarmament negotiating forum of the international community, the CD was established after agreement was reached among member states during the first special session of the UN general assembly (UNGA) devoted to disarmament (1978). It is the successor of the Ten Nation committee on disarmament (TNDC), the Eighteen-Nation Committee on Disarmament (ENCD) and the Conference of the Committee on Disarmament (CCD). Multilateral arms control and non-proliferations and disarmament agreements are negotiated in the CD in an annual basis. The CD Agenda includes:
 - Cessation of the nuclear arms race and nuclear disarmament,
 - Prevention of an arms race in outer space (PAROS),
 - Prevention of nuclear war, including all related matters,
 - Effective international arrangement to assure non-nuclear weapons states against the use or threat of use of nuclear weapons, new types of weapons of mass destruction and new system of such weapons, radiological weapons,
 - A comprehensive program of disarmament,

¹ Proposed Prevention of an Arms Race in Outer Space (PAROS), <https://www.nti.org/learn/treaties-and-regimes/proposed-prevention-arms-race-space-paros-treaty/>

² Conference on Disarmament, <https://www.unog.ch/cd>

- Prohibition of the production of fissile material for nuclear weapons or other nuclear explosive devices,
 - Transparency in armaments, consideration and adoption of the annual report and any other report, as appropriate to UNGA.
4. The UN disarmament negotiating forum calls on the Conference on Disarmament (CD) to establish an ad-hoc committee regarding PAROS resolution issues to examine and consider issues relevant to PAROS, examine and consider existing agreements relevant to PAROS, and examine and consider existing proposals and future initiatives on PAROS.
 5. In the past, China has insisted that it would not participate in negotiations on any fissile material measures without concomitant negotiations on PAROS. In 2002, China and Russia tabled a joint working paper with the aim to provide the basis for negotiating and concluding a new legal instrument in outer space and in 2003, China softened its position agreeing to join PAROS discussions. The following year, Hu Xiaodi, the Chinese Ambassador on Disarmament Affairs said during a plenary session of the Conference on Disarmament in Geneva that “The prevention of the weaponization of an arms race in outer space has become ever more urgent (...) due to its unique commanding position of height, outer space has been attached with an ever more important military and strategic value”. Despite this, consensus on the topic has not been reached.
 6. The destruction of the Japanese cities of Hiroshima and Nagasaki by American atomic weapons in August 1945 began an arms race of nuclear and aerospacial nature between the United States and the Soviet Union. This lasted until the signing of the Conventional Forces in Europe treaty of November 1990. In 2014, Russia and China submitted a new draft version Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects (PPWT), a short time after the European Union (EU) completed their third Open Ended Consultations (OEC) for the development of the International Code of Conduct for Outer Space Activities (ICoC) in Luxembourg. The first draft had been presented in the Conference of Disarmament in 2008. Russia and China stated in the draft treaty “We consider a legally binding ban on placement of weapons in outer space as one of the most important instruments of strengthening global stability and equal and indivisible security for all,”, as one of the main objective for this draft. This means that if the PPWT becomes binding international law, it will revoke customary norms of non-interference and leave many space objects of non-parties open to interference, unless they become party to the treaty. The United States shows absent in this draft and that can conclude to the terminal of the PPWT³.

³ Listner, M. & Rajagopalan, P. (2014). The 2014 PPWT: a new draft but different problems. Retrieved from <http://www.thespacereview.com/article/2575/1>

7. The United Nations' new Space2030 agenda has been developed as a new strategy for international space development in contribution to the 2030 Agenda for Sustainable Development. The strategy has been set forth to ensure all Member States benefit equally from the exploration and development of outer space, to assist in emerging space states to build capacity, to make sure that outer space remains peaceful and weapon-free, to help mitigate risks from near-Earth objects and debris, and to aid the attainment of the Sustainable Development Goals.⁴
8. Today PAROS has helped protect space for peaceful uses by all countries but it has not managed to definitively close off all threats to the safety of military and civilian space assets and the pursuit of other types of space-based weapons. For instance, several countries are in the process of, or have developed offensive weapons capabilities for the purpose of shooting down satellites in orbit using ground-based ballistic missiles, which has not yet been properly regulated. The United Nations itself is contemplating defensive, space-based, kinetic-energy missile interceptors. The time has come once again for states to engage in dialogue on space security and prevent a new and dangerous arms competition in the air.

II. Challenges

9. Because of the sensitive nature of the subject at hand, there are many conflicting views at PAROS that have resulted in clashes among member states. Western groups believe that there is neither an arms race in outer space nor any significant ongoing development by any state with respect to space weapons. This view translates in their belief that there is no need for any legally binding instrument in this field. On the other side, there are many member states that have raised concerns over the imminent development of outer space weapons and the military threat that these would post, and in so have originated and supported proposals to establish international agencies and mechanisms to monitor outer space activities and prevent the militarization of outer space.
10. In 2006 under the President Bush administration, the US national space policy explained that the US will preserve its rights, capabilities and freedom of action in space. They will take necessary actions to protect its space capabilities, respond to inference and deny adversaries the use of space capabilities hostile to US national interest⁵. The United States of America has been, for many years, the main member to not stand by PAROS. This is a serious concern to the international community as the US currently poses the largest military stockpile in the world, as well as the most significant monetary investment in military and weapons development. It is estimated

⁴ United Nations, General Assembly, *Report of the Committee on the Peaceful Uses of Outer Space*, A/73/20 (29 June 2018), available from undocs.org/A/73/20.

⁵ National Space policy of the USA, 2006

that in 2018 the US spent \$649 billion dollars on military spending, compared to \$250 billion USD from China, the second largest spender⁶.

11. Russia, on the other hand, believes that the existing legal instruments have not prevented any countries to launch and test conventional weapons in space as well as weapons that are based in new technological principles such as lasers and nuclear power. Both Russia and China have stressed on numerous times that the existing legal instruments that relate to the peaceful uses and non-militarization of outer space are inadequate to prevent an arms race.⁷
12. Attempts to have meaningful international discussions that might produce new understandings on maintaining the peaceful use of space, which refers to activities consistent with international law and the United Nations charter⁸, have been hindered by now. There have been numerous attempts by China and Russia to have concrete talks on the topic at the 65 nation CD, but despite the international community's efforts, there have been few new conclusions reached.
13. One of the main challenges of PAROS is that its legally binding treaties have somewhat vague wording that could lead to varying and vastly different interpretations from state members. This is one of the main challenges of PAROS, as this can result in conflicting implementations of the treaty and create the opportunity to begin a space war.
14. There are 3 categories of regimes in the field of space and none of these elements were taking in full consideration by any legal binding instrument:
 - a. Activities that have been banned as placement of nuclear weapons and other mass destructions in outer space;
 - b. Incentive activities such as the promotion of the peaceful use of outer space for benefits of all humanity;
 - c. Activities that are permissible and that includes all activities that are neither prohibited nor encouraged in space documents.
15. Contradictory functions of CD members about PAROS are the most important challenges that must be addressed in order for fruitful negotiations to take place. Twenty-three countries of the European Union (EU) are members of NATO, but these two organizations have adopted contradicting space defense policy that puts its member states in a conflicting position. On the other hand, India has very close

⁶ SIPRI Military expenditure database,
https://www.sipri.org/sites/default/files/styles/body_embedded/public/2019-04/1_top15spenders_sipri_2019.jpg?itok=inzaLj1t

⁷ Meyer, 2011

⁸ <https://www.cia.gov/library/readingroom/docs/CIA-RDP66R00638R000100160004-2.pdf>

cooperation with the USA and Israel in space military objects. This as well as the space military cooperation between China and Pakistan are contradictions that must be negotiated and readdressed in PAROS aims and operations.

III. Future Priorities

16. In order to resolve the growing concerns about a potential arms race in outer space, the international community must negotiate and adopt additional political commitments and confidence building measures that are inclusive to all member states, with the purpose of promoting the peaceful uses of outer space while preventing its weaponization.
17. Member states must strive to develop a common understanding of the terms of PAROS as the main legal instrument to prevent the weaponization and arms race in outer space. Anti-ballistic systems and missile defense systems are two main concerns that the international community has called for prohibition, and they currently represent the main sources of insecurity among member states. Regulation and implementation mechanisms to prevent the proliferation of these threatening space technologies must be revised.
18. Securing a peaceful outer space cannot depend solely on resolutions of the PAROS debate. Immediate measures to manage and closely monitor space activity and build transparency among the international community must be pursued concurrently. It is necessary to give special attention to important steps in Confidence building measures (CBMSs) in cases like increasing the disclosure of space-related operations, upgrading information about satellites, creating a code of conduct in space operations and international transfers of space technology and information, among others.
19. With increasing space-related technologies, the risk of the weaponization and arms race in outer space seems now as imminent as ever. Creating a legally binding instrument that can be ratified by all Member States is the most reliable method for the prevention of an arms race in outer space. Outer space obligations cannot be compulsory without an international consensus-based commitment on outer-space issues.
20. It is important to reevaluate the priorities of space in the international community to redesign their visions on space towards mutually assured security instead of mutually assured destruction. The efforts to ensure space security on the basis of mutually assured security can be a fundamental action for motion to mutual trust. By creating the necessary environments to ensure mutually assured security in outer space-related technologies, it is more likely for states to come to the negotiating table regarding outer space issues. Moreover, this can increase technology and information sharing from member states that are otherwise hesitant to cooperate in knowledge-building

in the international community. This increased transparency will help develop peaceful outer-space activities pursuant to the Space2030 initiative and the Agenda for Sustainable Development⁹.

21. The negotiation process for legally binding measures is long, so interim measures such as establishing provisional codes of conduct for space security can allow member states to have a guiding document for their outer space activities without feeling the pressure to ratify a legally binding treaty. The goal of such codes of conduct would be to establish stronger norms against dangerous activities in space, including flight tests that simulate hostile attacks against satellites and the deployment of anti-satellite and space weapons.
22. Finally, the most direct level of regulation for space activities is on the national level. States are responsible for authorizing and supervising their own nationals, and should hold both private and public entities accountable for their space-based activities. Whether through government agencies or private sectors, pushing for national legislation in the forms of laws and policies will better allow for comprehensive space regulation that meets the standards of individual nations.¹⁰

IV. Further Reading

- Estabrook, Sarah, update on prevention of an arms race in outer space, research and action for peace, the ploughshares monitor Autumn, 2006.
- Conference on disarmament, NTI Building A safer world, Last modify: April 14, 2014: www.nti.org.treatiesandregimes/conference-on-disarmament.
- Conference on disarmament, Report of the Ad Hoc committee on prevention of an arms race in outer space, document CD/642, 4-5 September, 1985.
- Conference on disarmament, viewed in WILP, Last modify April 14, 2014: www.reachingcriticalwill.org/disarmament-force/CD.
- Meyer, Paul, The conference on disarmament and prevention of an arms race in outer space, A short history, UNIDIR resource, April 2011.
- National space policy of the United States of America, June 28, 2010: www.Globalsecurity.org. Last modify: May, 21, 2014.

⁹ General Assembly resolution A/72/65 adopted February 16, 2017. Available at <https://undocs.org/A/72/65>

¹⁰ <http://www.unidir.ch/files/publications/pdfs/space-security-conference-2018-space-security-the-next-chapter-en-714.pdf>

- The military doctrine of Russian federations approved by Russian federation presidetion 5 February 2010: <http://www.sars.org/doctrine-Russian-federation-2010>.
- US national space policy, 31 Aug. 2006, released 06 Oct 2006: [www. Global security.org](http://www.Globalsecurity.org). Last modify: May, 21, 2014.
- United Nations press: <https://www.un.org/press/en/2005/gadis3310.doc.htm>
- United Nations agenda: <https://www.un.org/press/en/2005/gadis3310.doc.htm>