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INTERNATIONAL DEVELOPMENT OF SPACE AND PREVENTION OF AN ARMS RACE IN OUTER SPACE [PAROS]

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ABSTRACT

In the half-century since the first launch of Sputnik 1 it has become impossible to consider economic, political, or scientific human life in the communication eld without reference to outer space. As proved in the recent Iraq, Gulf, and Kosovo Wars, Space capacity is a necessary actor of modern warfare. Space power is becoming a barometer of national power. Commercial and military activities were developed by the USA and former Soviet Union in the early days, but in the 21st Century many nation participate in space activities either directly or indirectly. Because of the importance of space and security interests, China, Japan, the EU, as well as USA and Russia, spur military and commercial Space development. Space development contributes to positive human life, but there are increasing concerns that the last frontier - outer space - could become a theater of war. For many observers the prospect of an arms race in outer space is brought closer by the possibility of American and Russian unilateral military use of Space. As a result, there is a growing groundswell of public opinion aimed at preventing such an arms race developing and to guarantee the peaceful use of Space. This is a vital and pressing need. Because every nation has a direct posture on the grounds of national interest, or direct levels of Space development, the conditions required for the successful negotiation of a comprehensive treaty are not yet ripe. However, it is possible to conduct studies on the sustainable use of Space, a code of Conduct for Space, and Space debris, as well as practical and confidence building measures such as notification of launch. It is hoped that by beginning with soft measures (CBM, Code of Conduct) for which it is easier to secure voluntary participation it may be possible to build up to a comprehensive treaty. The participation of the Space powers (USA, Russia, China) in a dialogue of mutual exchange and shared information would contribute to international peace and give a long term benet to humankind. It is also necessary to promote partnership through regional and bilateral cooperation. We should guide and shape opinion so that more nations ratify and sign existing international legal covenants in order to contribute to the legacy of Space law. International law needs to enforce PAROS and Space Security.

I. Introduction

In April 2009, North Korea launched a missile, claiming that it was launching a communications satellite, and conducted a second nuclear test in May. Such actions threatened the Korean Peninsula and international security. The US shot down the intelligence satellite despite condemnations from China and Russia. China also successfully conducted the launch of an anti-satellite missile. This illustrates how the arms race in outer space will intensify internationally in the future. The space arms race began with the launch of Sputnik 1 by the former Soviet Union. Human beings have expanded their capacity to wage war in outer space. After the former Soviet Union launched Sputnik 1, it launched about 5,400 satellites and still has about 1,000 satellites active today. Nowadays, while the standard of living has risen for many compared to the past, this has been accompanied by increased development of space technology, thereby developing new space arms and increasing military use of space. China, Japan, the EU, as well as the US, and Russia, have spurred military and commercial space development. Space development contributes

positively to human life. Every nation has encouraged space development and prior occupied space asset and eagle in order to magnify its national interest. Especially in the twenty-first century, countries wanting to expand their sphere of influence and power have been motivated to pursue the space arms race in order to obtain information on enemy targets, surveillance satellites, and develop space arms relevant to the military.

The space arms race will be a grave threat factor in international security. The international society should be concerned about the military use of space and should try to search for necessary measures in preventing catastrophe.

Sound that space so called last Frontier must to be use peacefully and space arms race had to be prevented are going high. Many scholars in particular insist upon the prevention of the space arms race, basing their claims on the norm prohibiting the arrangement of arms in outer space, and the peaceful use of outer space. For example, the Outer space treaty of 1967 and the Moon treaty in 1979 stipulate as follows: Space must be used peacefully and space is not exclusive to any nation's sovereignty and ownership. Outer space is the Common Heritage of Mankind(CHM)," thus prohibiting the stationing of arms and nuclear tests. Disputes over disarmaments in outer space are ongoing. Recently, many nations through the UN have worked together in order to prevent a further space arms race. As every nation has a different stance with regard to national interest, or different levels of space development, the conditions required for the successful negotiation of a comprehensive treaty are not yet fruitful. However, the countries with Space power– the US, China, and Russia- sharply differ over the space arms race, which will be a grave obstacle. This article describes the space arms race and suggests what direction and measure should be taken in order for space disarmament to be successful.

Ⅱ. Contentions on Space Arms Control

1. Definition of Space Arms Control

The definition of Space Arms Control can be contrasted with arms control, which essentially refers to the act of controlling arms rather than eliminating them. A distinction can also be made between disarmament as a process (the process of eliminating weapons), and disarmament as an end state (the absence of weapons). Disarmament has also come to be associated with three things, none of which relate to the systematic and comprehensive reduction of weapons: (1)Generally Arms Control, (2)Structural Arms Control, and (3) Operational Arms Control. General Arms Control is divided into Structural Arms Control and Operational Arms Control. Structural Arms Control limits, reduces, and abolishes the causes of war. Operational Arms Control reduces the possibility of sudden attacks and increases security. One of basic Arms Control is Confidence Building Measures(CBMs). CBMs are relatively easy to begin, drawing upon mutual agreement with the accumulation of the actual result being very important. It is imperative to dissolve mutual mistrust in order to continue arms control. Thus the former Soviet Union and the US established a hot line in 1963 to decrease the threat of nuclear war. CBMs were very important to prevent proliferation and misunderstanding. These CBMs were adopted as concrete policy measures at the final declaration at the Conference on Security and Cooperation in Europe(CSCE), with 35 participating nations in 1975. Verification of mutual agreement is important in relevant arms control measures or CBMs. There is no purpose of mutual agreement in and of itself if there is no agreement, and measures of verification are useless if arms control is compromised. Nations break agreements in spite of voiced cooperation with regard to arms control. In view of these general arms control theories, the definition of arms control is to accomplish security in order

to reduce or weaken a military threat by mutual consultation with a potential enemy or opposing state. The definition of space arms control is to achieve security in order to reduce or weaken space military threats.

2. Argument on Space arms control

Relevant to space arms control and space security, the UN raised concerns about militarization in outer space and insisted on preventing an arms race by way of a multilateral agreement. The US, Russia and China in particular, have different views on the outer space arms race. Russia and China insist on making international treaties to not militarize space , but the US has taken an opposite stance claiming that an international treaty and arms control treaties would be ineffective.

Ⅲ. Prospect and Measures of space arms control

1. Prospective of PAROS

China and Russia under the auspices of the U.N. and the Geneva disarmament conference lent publicity with regard to PAROS, advocating making a treaty with regard to PAROS. Most nations globally supported the draft of PAROS. The United States about PAROS is the member of one decimal from such international public opinion. The concerns of the domestic public opinion of the United States of two powerful countries such as China and Russia and their space arms is high, but does not to be easily becoming fixed the logic of the space armament magnification which is unilateral. There is not a margin of especially different choice of USA. Being turn in PAROS where the many nations support, will do? Or continuing the militarization of outer space, only matter of choice remains. Today the US as a space power, should clearly resist unilateral and offensive space military strategies by other powerful countries and the international community. In addition, China and Russia lack transparency and outer space military expansion will become competitive in the international community. Under the assumption that the US will lead the 21st century space age, the material whose Russia and China are any without the case international community which will go up with an infinite arms competition on outer space will bring new dangers to be confronted. This danger does not merely affect the international community, but will bring about new dangers domestically as well, by increasing military power in outer space. The future PAROS problems come to seem arms reduction problems of the past, and will meet a new turning point according to public opinion of the international community. Respects this from as second lieutenant space powerful country the disadvantageous right the investigation must become accomplished with the direction which is turn about PAROS of the nations and affirmative.

2. Space Arms Control Measures

The position and prospects of the various nations with regard to space arms control has been reviewed. In order to prevent the space arms race, Russia and China have emphasized the need of a new international law. This law would have a limitation within its terms of the international law system of present time and that together transparency and confidence building management are necessary. However, the United States opined that making a new treaty on space arms control in the current international law system would be unnecessary and adhered to the dominant position that non-interference should be kept on outer space. Thus, there is a limitation to present clear and unified measures because of different positions and assertions of various nations. What measures will there be to prevent arms race in outer space? In order to respond to this question, I will present actual and possible measures to sufficient considering simultaneously ideal purpose and the actual

environment of space arms control, position various nations.

These measures include 'settling easy issues first, resolving more difficult matters later' and' methods of progression and phases'. There are comprehensive measures in this position. Also I search for solutions with regard to space arms control within current international norms and the making of new international laws. I will present methods based on the Ottawa process which aims for a regional cooperative model as appropriate measures.

As follows, the paper is divided into confidence building measures, measures relating to norms, partial and comprehensive measures, and regional cooperative measures.

. 1) Confidence Building Measures

Confidence-building measures are voluntary protocols by which states opt to abide.[1] They are not usually legally binding or inclusive of verification mechanisms. Instead, they work to promote dialogue and interaction, facilitate information-sharing and increase trust between states. CBMs are easier and arguably quicker to negotiate and implement than treaty-based regimes. Negotiating a CBM for outer space activities, for instance, could circumvent difficult definitional issues, such as "space weapons", "peaceful uses" or even "outer space". CBMs also do not require parliamentary ratification, and are therefore more expeditiously implemented. There are several precedents for CBMs governing military and commercial activities. Some of the more successful CBMs include the Hague Code of Conduct for Missile Proliferation, or the Incidents at Sea and Prevention of Dangerous Military Activities Agreement. Such precedents further contribute to the attractiveness and feasibility of a CBM approach. One of the more popular CBM proposals is a Rules of the Road or a Code of Conduct, such as that advocated by the Stimson Center. Such a code would seek to:[2]

- avoid collisions and dangerous maneuvers in space;
- create special "caution and safety areas" around satellites;
- develop safer traffic management practices in space;
- prohibit simulated attacks and anti-satellite tests in space;
- facilitate information exchanges, transparency and launch notification measures; and
- encourage more stringent space debris mitigation measures.

Such a Code of Conduct, while not necessarily legally binding, does not preclude the possibilities of a future treaty; rather, it could be complementary or elemental to a future, multilaterally-negotiated, legally binding mechanism. It has already amassed significant support from various militaries, national and international space agencies and commercial space industry leaders. Confidence-building measures, while promoting dialogue and cooperation, are not long-term answers. Short of becoming law, they do not constitute a global norm. Their non-binding nature results in ambiguous compliance. Space debris caused by peaceful uses may be mitigated, but such mitigation is rendered irrelevant in the face of the dangers posed by potential weaponization of outer space. Moreover, focusing on such a limited regulatory system may detract from the momentum to address these longer-term threats. Worse, disavowing a comprehensive, multilateral approach to outer space security in favor of more limited measures may have deleterious effects. In the 1960s, for example, when strontium 90 was showing up in mother's milk, there was a strong movement for progress on disarmament and testing prohibitions. This movement represented a powerful convergence of

1. Rhianna Tyson, Advancing a Cooperative Security Regime in Outer Space, Global Security Institute Policy Brief, p. 5.

2 For a draft Code of Conduct, see: http://www.stimson.org/space/ ?SN=WS200702131213

environmental, disarmament and feminist concerns. But the quest to prohibit nuclear testing devolved into the negotiation of a Partial Test-Ban Treaty, which permitted nuclear explosions underground. As a result, nuclear testing continued for decades and the political momentum dissipated. A Comprehensive nuclear Test-Ban Treaty was not negotiated until 1996, and in 2007 it has still not entered into force. Faced with the possibility of a stricter regulatory regime, weapons makers may be incited to expedite the research and development of weapons systems, thereby expediting their possible deployment.

2)Strengthening Existing Legislation

There are already a number of international instruments with jurisdiction over space activities. The most important is the OST, which provides a basic framework for space activities.[3] Enshrining the principles of peaceful use and exploration, and that outer space should be available for the benefit of all (not subject to national appropriation by sovereignty claims), the OST has 102 parties, including China, France, India, Israel, Pakistan, the Russian Federation, the United Kingdom and the United States.[4] It prohibits the stationing of WMD, including nuclear weapons, in space orbit or on celestial bodies. It does not cover the transit of nuclear weapons (on ballistic missiles) through space or prohibit nuclear weapons launched from Earth into space for the purposes of destroying incoming missiles. It also says nothing about ASATs or the placement of conventionally armed weapons in space. Other relevant treaties include the 1963 Partial Test Ban Treaty (PTBT), which banned nuclear testing in outer space, and the Moon Agreement of 1979, which confirmed many of the provisions of the OST, with specific reference to the Moon. Though prohibiting the threat or use of force on the Moon or the use of the Moon to commit hostile acts in relation to the Earth or space assets, the Moon Agreement does not address placing conventional weapons in orbit around the Moon. Important prohibitions on deploying and testing anti-ballistic missile(ABM) systems in space and on interfering with national technical means (NTM) operated for verification purposes were enshrined in the 1972 ABM Treaty, deemed void following US withdrawal in June 2002. The principle of non-interference with NTM was also enshrined in the 1987 Intermediate Nuclear Forces (INF) Treaty and the 1991 Strategic Arms Reduction Treaty(START I). START I also prohibited the production, testing and deployment of "systems, including missiles, for placing nuclear weapons or any other kinds of weapons of mass destruction into Earth orbit or a fraction of an Earth orbit"and contained transparency and confidence-building provisions. It reinforced the provisions of the 1988 Ballistic Missile Launch Notification Agreement, providing for advance launch notification of ballistic missiles used as boosters to put objects into the upper atmosphere or space. George Bunn and John Rhinelander, legal advisers to earlier US Administrations, have argued that the OST created an "overall rule [that] space shall be preserved for peaceful purposes for all countries".[5] They argue that OST parties would have the right under the treaty to request consultations if another party planned to test or deploy in space a laser or kinetic kill vehicle capable of being used as an ASAT, a description that would cover the space-based component of the Bush Administration's multi-layered missile defense architecture. Endorsing that OST parties should make use of this provision and request formal consultations with

3 Rebecca Johnson, Security without weapons in space: challenges and option, *disarmament forum* 2003, pp.58.

4 Treaty available at 〈http://www.oosa. unvienna. org/SpaceLaw/outersptxt.html〉

5 George Bunn and John B. Rhinelander, 2002, Outer Space Treaty May Ban Strike Weapons, Arms Control Today, vol. 32, no.5(June), p. 24.

the United States, Jonathan Dean also proposed that nations could pass a resolution in the General Assembly to request the International Court of Justice(ICJ) to give an advisory opinion on whether testing or orbiting space weapons of any kind would be contrary to the core rule and objective of the OST that space be maintained for peaceful purposes. On the grounds that the testing or use of space weapons would jeopardize national technical means of verification, enshrined in several treaties and agreements, and the commercial uses of space, he also suggests that legal action could be taken to prevent such threats, utilizing international and US courts, as appropriate.[6]

3)Partial Measures

Assessing that the current situation is equally detrimental to the interests of commercial and military space users, advocates of space weapons for missile defense and arms controllers, and that the alternative to compromising around some middle ground would be no agreement a tall (and a victory for the space hawks), some arms controllers are exploring partial measures.[7] The Eisenhower Institute has suggested that certain space assets like the Global Positioning System(GPS) and other navigation satellites, telecommunication and weather satellites could be declared "global utilities" and given special legal status.[8] Recalling earlier discussions, particularly during the 1980s debates over Ronald Reagan's Strategic Defence Initiative (SDI), a number of governmental and non-governmental representatives have pushed for reconsideration of a multilateral ban on ASAT weapons, at least as a first step.

Another proposal builds on an earlier Bunn proposal to distinguish between weapons in low and high orbit. With the aim of getting the support of key actors among the inevitable weaponizers and militarization realists, James Clay Moltz argued the case for prohibiting the use, testing or deployment of weapons or interceptors of any sort above 500 miles and prohibiting the stationing of weapons in LEO. His proposal would permit the testing (and presumably use) of ground-based, sea-based and air-based interceptors in LEO against ballistic missiles but not against satellites or other space-based objects (while recognizing that implementation of this would have to rely on taboo-building and confidence, since verification techniques would be unable to distinguish between permitted ABM interceptors and banned ASAT purposes). While such a compromise would be unlikely to satisfy the space hawks, it allows key elements of the Bush Administration's missile defense plans, while clear barriers would prevent space-based lasers or kinetic kill weapons, and might therefore head off the escalation to higher levels of space weaponization that many fear as the most threatening and destabilizing facet of the missile defense project.

The Stimson Centre's "space assurance" concept takes another approach, starting from the premise that cooperative international measures are necessary to ensure the continuation of space commerce and exploration and would be highly advantageous to US military operations. Accordingly, the Stimson Centre favors licensing and controlling particular kinds of space-related activities through consultation, negotiation, or by means of unilateral national action. These are interesting initiatives to gain attention from moderates in the Bush Administration, but there is a risk that partial approaches may buy off public concern, making it more difficult to build the necessary political momentum to ensure that negotiations actually

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6 Jonathan Dean, ""Defences in Space: Treaty Issues"", in James Clay Moltz (ed.), *Future Security in Space: Commercial, Military and Arms Control Trade-Offs, Monterey Institute of International Studies, Occasional Paper No. 10, 2002, pp. 3-7, available at <http://cns.miis.edu/pubs/opapers/op10/op10.pdf>*.

7 Rebecca Johnson, Security without weapons in space: challenges and option, *disarmament forum* 2003, p.59.

8 As noted by Jonathan Dean in his presentation to the Conference on Outer Space and Global Security, loc. cit.

go ahead. It is also important to note that though there are indications that some in the Bush Administration might be willing to consider a ban on ASAT weapons and uses, this is no longer a viable option for other key States, notably China. US use of force-support assets in space means that such a ban would be dismissed as a mechanism to protect US military capabilities while denying others the right to defend themselves against space-supported attacks. If pursued on its own, an ASAT ban would be regarded as discriminatory and unenforceable. To be viable, it would need to be coupled with a ban on space weapons testing and deployment.

4)National and Regional Approaches

Although few parliaments have yet begun to pay attention to space security as an issue, it is beginning to be linked with rising international concern about missile defense.[9] The European Parliament has issued periodic reports on Europe and space. By contrast with the US emphasis on the military uses of space, the most recent European Parliament report emphasized that space activities should only be for peaceful purposes, including scientific knowledge, with "benefits for research, industry and society as a whole", including the European Space Agency (ESA) and a future satellite system for global environment monitoring. The report also identified "protection and management of the space environment"as a major policy goal and warned that the European Union could be taking its first step towards the militarization of space with the GALILEO navigation /location system, intelligence- gathering and the Global Monitoring for Environment and Security (GMES) initiative. The European Union's emphasis on social and economic benefits and on managing the environment is reinforced by France, Europe's leading space faring nation and a prime mover behind ESA. Among US allies in Europe, France has been more keen than most to challenge Washington over missile defense and space policy, and has in the past advocated greater action on PAROS in the CD than the United States is willing to contemplate. Britain, like France, has an active space program, with significant investment in space-based telecommuni -cations, remote sensing, surveillance and intelligence-gathering. Reflecting its close military collaboration with the United States, however, the United Kingdom has been reluctant for PAROS to be made a CD priority, although it traditionally votes in favor of the annual United Nations General Assembly resolutions on prevention of an arms race in outer space.41 The British Ministry of Defence (MoD) has expressed concerns about space debris, and has noted but without expressing explicit concern that space could become part of a potential "future battle space" in which the use of directed energy weapons "seems likely to increase".The United Kingdom is more dependent on US military space programs than other European Union countries. Although officials privately express concern about the implications of the Bush Administration's ambitious and apparently open ended plans for missile defense and the weaponization of space, the United Kingdom already hosts two US facilities that are crucial for missile defense and the US National Security Agency, at Fylingdales and Men with 77 Hill in Yorkshire, and the current Government would be unlikely to take an independent or critical stance unless the issue became domestically politicized at a much higher level than at present. Within the United States itself, a Democrat Representative, Dennis Kucinich of Ohio, put forward a Space Preservation Bill in the House of Representatives in January 2002. In essence, the bill calls on the United States to ban all research, development, testing and deployment of space based weapons. If passed, it would also require

9 Rebecca Johnson, Security without weapons in space: challenges and option, *disarmament forum* 2003, pp.59-60.

the United States to enter into negotiations towards an international treaty to ban weapons in space. This initiative, which has also given rise to an NGO-sponsored Space Preservation Treaty, can be a useful tool to stimulate public and political debate, but it is unlikely to become a viable basis for negotiations or real legislative action. Nevertheless, there may be some political merit in other parliaments introducing similar initiatives to stimulate national debate and public and political mobilization around space security issues.

5)Comprehensive Approaches

The most effective comprehensive approach for addressing both US and international security concerns would require three interrelated components:[10] A ban on the testing, deployment and use of all kinds of intentional weapons in space. This is needed to extend and strengthen the 1967 Outer Space Treaty's prohibitions on weapons of mass destruction in space so that directed energy (laser) and kinetic kill weapons are also banned, as well as any other potential offensive innovations that military researchers or planners might dream up. A ban on the testing, deployment and use of terrestrially based anti-satellite weapons, adding land, air and sea-based ASAT weapons to the ban on space-based ones covered in the previous point; and A code of conduct for the peace-supporting, non-offensive and non-aggressive uses of space. The code of conduct/rules of the road could include regulations relating to space debris and space traffic control, missile launch notification, and other transparency and confidence building measures, with mechanisms for reviewing and updating provisions as and when appropriate. An obvious and fundamental problem for treaty negotiations is how a "weapon in space" can be defined or distinguished from the military components in space of terrestrially based weapons. Suggestions for basing the ban on "purpose" rather than "technology" need to be explored further. Verification questions abound. Such objections do not undermine or invalidate the concept of either a space security treaty or a set of interconnecting agreements covering these three essential and interrelated components, but they do point to the need for legal and technical experts to get together with diplomats and government officials to work out the needs and parameters of a space security architecture. With the advent of the United States' most recent push to develop missile defenses, there has been renewed pressure from many States for the CD to address issues relating to the potential weaponization of space under its PAROS agenda item. Some States, notably China and the Russian Federation, have intensified their demands for the CD to undertake negotiations to prevent the weaponization of space. In June 2002, China and the Russian Federation, together with Belarus, Indonesia, Syria, Viet Nam and Zimbabwe, co-sponsored a working paper on Possible Elements for a Future International Legal Agreement on the Prevention of the Deployment of Weapons in Outer Space, the Threat or Use of Force Against Outer Space Objects.[11] Consisting of 13 articles, the working paper was laid out as a draft treaty with the object of stimulating the early start of substantive discussions in the CD on the issue of PAROS.[12] The preamble stated that "only a treaty-based prohibition of the deployment of weapons in outer space and the prevention of the threat or use of force against outer space objects can eliminate the emerging threat of an arms race in outer space and ensure the security for outer space assets of all countries which is an essential condition for the maintenance of

10 Rebecca Johnson, "Multilateral Approaches to Preventing the Weaponisation of Space", *Disarmament Diplomacy, No. 56, April 2001, at <http://www.acronym.org.uk/dd/dd56/56rej.htm>.*

11 CD/1679 of 28 June 2002. This was a follow-on from China"s earlier working papers on PAROS.

12 Leonid A. Skotnikov, Permanent Representative of the Russian Federation to the CD, CD/PV.907, 27 June 2002.

world peace". The draft treaty's scope comprises three elements: "Not to place in orbit around the Earth any objects carrying any kinds of weapons, not to install such weapons on celestial bodies, or not to station such weapons in outer space in any other manner. Not to resort to the threat or use of force against outer space objects. Not to assist or encourage other States, groups of States, international organizations to participate in activities prohibited by this Treaty."The Chinese-Russian initiative is partly a political tactic, and partly a genuine attempt to stimulate discussion about what a space security treaty might look like. Like the Kucinich bill, it is important to recognize that such drafts are only sketched, intended to provoke discussion rather than be a technical or legal basis for negotiations. They can play a very valuable role, providing their supporters recognize their mobilizing function and do not become stuck on the minutiae of specific language formulations or become narrow- mindedly exclusive about their particular approach.

6)Legally-binding options

Cognizant of the limitations of CBMs, many states favor the negotiation of a legally binding, multilateral, comprehensive treaty.[13] The General Assembly of the UN has passed dozens of resolutions, oftentimes with unanimous support, for the start of such negotiations.[14] The Geneva-based Conference on Disarmament (CD), as the sole 7 The 2006 resolution supporting the commencement of negotiations on the Prevention of an Arms Race in Outer Space (PAROS) (A/RES/61/58) received 171 votes in favor, with only one vote against (US) and one abstention (Israel). Multilateral forum for negotiating disarmament and nonproliferation treaties, is the preferred venue for such discussions.[15]

In their report, Weapons of Terror, the independent Weapons of Mass Destruction Commission noted that the current regime governing outer space security remains inadequate, lacking an overall framework that allows for "the development of a coherent approach to future challenges to space security". In addition to recommending unilateral renunciations of the deployment of weapons in outer space, the Commission recommended convening a Review Conference of the OST. Such are view conference would serve to promote universal ratification of the OST, as well as a way by which to "expand its scope through a protocol to prohibit all weapons in space.[16]"Despite the credible authority behind the recommendation, some states are wary of this approach. A Review Conference would necessarily open the entire OST up to revision, and the principles and prohibitions, as well as technical definitions, contained within could be negated. Russia proposes a new treaty on the Prevention of Placement of Weapons in Outer Space (PPWT). While it has yet to be formally released, Russian representatives say that the PPWT will seek to prohibit both space-based weapons as well as intentional destruction of space assets. It will not include verification, nor will it prohibit Earth based weapon systems that attack weapons traveling through outer space, such as antiballistic missile systems. As such,

13 Rhianna Tyson, Advancing a Cooperative Security Regime in Outer Space, Global Security Institute Policy Brief, May 2007, p. 5.

14 The 2006 resolution supporting the commencement of negotiations on the Prevention of an Arms Race in Outer Space (PAROS) (A/RES/61/58) received 171 votes in favor, with only one vote against (US) and one abstention (Israel).

15 Under the current proposed agenda for the CD, a Committee would be convened for the "substantive discussions dealing with issues related to Prevention of an Arms Race in Outer Space." While falling short of a mandate to negotiate a PAROS-related treaty, if adopted, this agenda provides for the first formal discussions on this issue since the CD committee dealing with this issue disbanded in 1994

16 "Weapons of Terror: Freeing the World of Nuclear, Biological and Chemical Arms," Report of the Weapons of Mass Destruction Commission. at http://www.wmdcommission.org.

the PPWT seeks to prohibit using such ASAT technology, rather than the development and deployment of systems capable of such destruction.

Ⅳ. Conclusion

Meanwhile positive contribution of outer space about life of the human being, the voice of worrysome which human being last Frontier will be change battlefield is coming to be high about life of the human being. Many people foresee a high possibility of a space arms race in according to military use tarily outer space unilateral by the US. Russia, and so forth of space power. Public opinion is growing with regard to increased measures through various international bodies, including the UN, in guaranteeing the peaceful use of outer space and preventing the space arms race. Such actions are imperative in order to prevent the space arms race. If people do nothing, the non-weaponization of space will be a wasted effort. If we disregard this problem, people will be destroyed owing to the past tens years' visualized 'Star Wars' scenario. As the importance of commercial and military aspects is augmented, the vulnerability to cope with threats still exists and must be confronted. It is a very difficult situation, however, to secure international cooperation due to the narrow view on space arms control and defense and security, caused by the approach of weapons development and international cooperation. But we must take long-term and systematical measures to hand over space for peaceful purposes and as a common heritage of mankind. Respect for such follows from the idea that `line after that difficulties (as) 'methods `progressive. Must consider a phased access method '. Namely, considering confidence building measures, partial cooperative measures, regional cooperative measures, and so forth, realization possibility are high first, long-term measures in order to constitute the international norm which is binding force, with the international community to mutually assist each other. Also, In order to prevent a space arms race, it is necessary to take comprehensive cooperative measures within a global framework with the aid of the UN to join in the cooperation of Space Power. In addition, South Korea has recently had plans to join the space club and participate in the effort for the prevention of the space arms race in the international community. It should be established to raise exclusive responsibility on the part of the government and to even lead space arms control measures. We should encourage cooperation by the international community to identify in commercial and military space activities that increase threats to peace and harm the environment of outer space, such as space debris. Also, South and North Korea should cooperate with regard o space development and prevention of arms race on the Korean Peninsula. According to the South Korean government, plans to launch a space ship from a space center outside Cholla Nam Do Kohung around 2010 was being broadcast with the knowledge that North Korea would also initiate space development. It is, therefore, important to construct a cooperative relationship with confidence building measures.

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