

CHAPTER 6

ADDRESSING THE OUTER SPACE SECURITY ISSUE

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OUTER SPACE SECURITY IS SHARED SECURITY

Outer space is the common wealth of humankind, which should serve people around the world. It is hard to imagine a modern society without the support of outer space assets. The development and progress made in the fields of economy, culture, science and military of every country is related to the use of outer space. Outer space is an important resource for human beings at present and in the future. The exploration of outer space is related not only to the immediate interests of humankind, but also to the future of human society. Once the outer space peaceful environment is damaged, our descendants would suffer for a long time. Thus, countries all over the world must deal with outer space issues with caution, and must avoid any irreversible losses due to irresponsible activities.

Regarding the outer space security issue, the interests of all countries of the world, whether developing or developed ones, are intertwined with each other. One country cannot enjoy outer space security alone or avoid the negative impact of consequences from the disruption of the outer space peaceful environment. Therefore, outer space security can only be a shared security.

CHALLENGES TO OUTER SPACE SECURITY

There are two categories of challenges to outer space security. One category consists of crowded orbits, the shortage of channels for frequency distribution and the increase of space debris that stems from increased outer space objects and the countries involved in space activities, and the expansion of human outer space activities. All of these have undermined

the outer space security environment. Up to now, 19 countries have obtained space launching capability, over 40 countries have their own satellites¹ and about 130 countries have space-related programmes. The crowded geosynchronous orbit can be observed from the location charts of satellites. And there are now more than 13,000 large- or medium-size space objects in orbit, of which 6–7% are operating satellites. In low-Earth orbit, the size of most debris is less than 10 centimetres. Even tiny debris is capable of causing terrible damage to various operating spacecraft. However, these kinds of problems are being addressed by frequent international cooperation and coordination.

The second category of challenge is the threat of outer space weaponization and an arms race. It is reported that some countries are working on the research and development of space weapon systems such as air-launched anti-satellite missiles, space-based radio frequency weapons, relay mirrors (to bounce killer laser onto satellites in both low-Earth orbit and geosynchronous orbit) and the mysterious hypervelocity rod bundles (“Rods from God”).² Prompted by outer space strategy and military benefits, theories, doctrines and operational programmes concerning outer space war have appeared one after another. Some people have wishfully believed that by deploying various weapons in outer space, they are able to maintain their strategic and military superiority and provide effective protection of their outer space assets and, therefore, enjoy outer space security alone. This idea is short-sighted and dangerous. Because one country cannot maintain the monopoly of the advancement of technology, outer space weaponization would inevitably induce a new arms race, and outer space might eventually become a new battlefield. Outer space’s assets comprising millions of people’s wisdom and hard work could be destroyed overnight. At the same time, outer space weaponization and an arms race would damage cooperation and trust among countries all over the world. The fruits of all the efforts that the international community has made to tackle the problems of the first category of challenges would totally vanish. Therefore, outer space weaponization and an arms race is the most serious and immediate threat to outer space security.

WAYS TO MAINTAIN OUTER SPACE SECURITY

Under current circumstances, the most effective ways to maintain outer space security are as follows.

STRICTLY ABIDE BY THE TREATIES AND AGREEMENTS CONCERNING OUTER SPACE

Since human beings have had access to outer space, with the joint effort of international society, many international treaties and agreements concerning or relating to outer space have been reached such as the Outer Space Treaty, Partial Test Ban Treaty, Moon Agreement, Registration Convention, Liability Convention, Agreement on Rescue, and the International Telecommunication Constitution and Convention. To a certain extent, these treaties and agreements have guaranteed peaceful outer space activities and positively defended outer space security at present and in the future. They should be strictly observed.

NEGOTIATE AND CONCLUDE NEW INTERNATIONAL TREATIES PREVENTING OUTER SPACE WEAPONIZATION AND AN ARMS RACE

The existing outer space treaties and agreements also contain some regulations of outer space military actions. For example, the fourth article of the Outer Space Treaty stipulates “not to place in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner”. This article intends to keep outer space free from nuclear weapons or weapons of mass destruction. However, these treaties and agreements also have defects in preventing outer space weaponization and an arms race. For example, the weapons that some countries plan to deploy in outer space or to use in space war are not categorized as weapons of mass destruction and not yet forbidden by the current treaties or agreements. In addition, neither the use of force nor the threat of the use of force is forbidden by them. So, under the current situation it is difficult to deal with the actual danger of outer space weaponization and an arms race. The most urgent task for the international community is to negotiate and conclude a new international treaty that will fundamentally maintain outer space security.

People should learn a lesson from the course of the development and the spread of nuclear weapons. We cannot afford the burden of extinguishing the evil fire of outer space weaponization and an arms race when it goes rampant. The international community should take

precautions against outer space weaponization and an arms race from now on, and make great efforts in reaching a new outer space treaty.

FORMULATE AND CARRY OUT TRANSITIONAL MEASURES AND INTERMEDIATE STEPS

Some countries, non-governmental organizations (NGOs) and scholars have put forward suggestions and proposals such as formulating a code of conduct for outer space activities; setting a standard for dangerous actions that are likely to cause misunderstanding such as collision, manoeuvring, following, and surpassing outer space objects; and improving the transparency of space activities and engaging in confidence-building measures. The Russian Federation, as a great power in outer space, has pledged “not to be the first to deploy weapons in outer space” and calls upon other countries to make a similar promise. If the international community is able to reach a common understanding on the norms and a code of conduct put forward by the above-mentioned suggestions and proposals, it will not only create a sound and safer environment for the joint, orderly and peaceful uses of outer space by all countries, but will also promote mutual trust between those countries and lay a foundation for reaching an international treaty on preventing outer space weaponization and an arms race through further negotiations. Therefore, I believe that much significance should be attached to regarding these measures as intermediate steps and transitional measures before a new treaty can be finalized. Of course, by these measures there is still a long way to go before thoroughly eliminating the threat of outer space weaponization and an arms race. The most urgent task is to negotiate and formulate a new international legal document that is fully capable of preventing outer space weaponization and an arms race.

Thus, I would like to stress our common understanding on the issue of outer space security, that is, outer space is the shared wealth of humankind and every country should enjoy equal rights to the peaceful uses of outer space; and outer space security is related to the interests of all human beings and maintaining outer space security is a common responsibility of every nation. I believe that once outer space’s peaceful environment is damaged, the people of the world would suffer from it. If outer space is weaponized, the trend is next to impossible to reverse and the damage would be terrible and last for a long time. At present, the key to the protection of the security of outer space is that countries, especially those

possessing advanced space capability, fully demonstrate their political will and vision. On this basis and through consultation on an equal footing, promoting consensus and creating a favourable atmosphere of mutual trust, the goal of negotiating and reaching a treaty preventing the weaponization of outer space can be achieved.

Notes

- ¹ *Space Security or Space Weapons: a Guide to the Issues*, 2005, Washington, DC, The Henry L. Stimson Space Security Project, p. 4.
- ² Teresa Hitchens, *U.S. Military Space Policy and Strategy*, presented at the e-parliament Conference on Space Security, Washington, DC, 14 September.