

CHAPTER 7

SPACE AND SECURITY: EXISTING INTERNATIONAL LEGAL FRAMEWORK

Lucy Stojak

Within a year after the launch of Sputnik I, the UN General Assembly recognized that “outer space should be used for peaceful purposes only” and expressed the wish “to avoid the extension of national rivalries into this new field”. In 1958, the General Assembly created an ad hoc Committee on the Peaceful Uses of Outer Space (COPUOS) by a resolution entitled Question of the Peaceful Use of Outer Space.¹ The ad hoc COPUOS obtained permanent status in 1959 pursuant to resolution 1472 (XIV) of the General Assembly.²

Throughout the 1960s, numerous General Assembly resolutions were passed, all stressing the “common interest of all mankind” in the exploration and use of outer space for the benefit of all; not one of these resolutions, including the 1963 Declaration of Legal Principles, mentioned or banned arms in space. Thus, there was no attempt to address the issue of military implications of space activities.

MULTILATERAL LEGAL DIMENSION

Chronologically speaking, the 1963 Partial Test Ban Treaty (or Limited Test Ban Treaty)³ is the first international legal regulation of a military use of outer space. The treaty was elaborated from 1958 to 1962, with negotiations eventually conducted in the Eighteen-Nation Disarmament Committee. Lack of progress in this forum led to a Trilateral Test Ban Conference between the United States, the Soviet Union and the United Kingdom. Test-ban negotiations were later transferred back to the Eighteen-Nation Disarmament Committee, as a larger multilateral committee. The negotiation process merits attention since agreement was first reached

among most interested countries, and then opened to the international community.

The Partial Test Ban Treaty prohibits state parties from carrying out the explosion of nuclear devices in the oceans, atmosphere or outer space.

International space law is composed of five multilateral treaties: the 1967 Outer Space Treaty,⁴ the 1968 Astronaut Rescue Agreement,⁵ the 1972 Liability Convention,⁶ the 1975 Registration Convention⁷ and the 1979 Moon Agreement.⁸ In addition, four sets of UN principles have been adopted by the General Assembly for the regulation of special categories of space activities: the 1982 Principle on Direct Television Broadcasting,⁹ the 1986 Principle on Remote Sensing,¹⁰ the 1992 Principle on Nuclear Power Sources¹¹ and the 1996 Declaration on International Cooperation.¹² Though these principles are not legally binding instruments, they retain a legal significance by establishing a code of conduct recommended by the General Assembly and reflecting a legal conviction of the international community on these issues.

The first three articles of the Partial Test Ban Treaty establish the framework for peaceful exploration and use of outer space: the common interest principle (Article I), the freedom principle (Article I), the non-appropriation principle (Article II), and the application of international law and the UN Charter to outer space (Article III).

Article IV is the only provision that addresses military activities. Paragraph 1 of Article IV prohibits placing in orbit around the Earth objects carrying nuclear weapons or any kind of weapon of mass destruction, installing such weapons on celestial bodies, or stationing such weapons in outer space in any other manner. Paragraph 2 specifies that the "Moon and other celestial bodies" are to be used "exclusively for peaceful purposes". As such, the "peaceful purposes" clause does not apply specifically to outer space. Thus, the wording of Article IV reveals the limits on what the international community could reach agreement upon at the time.

The term "peaceful purposes" has had two interpretations over the years. The first equates peaceful purposes with *non-aggressive* actions, while the second equates it with *non-military* intent. Over 40 years of continuous state practice has resulted in a de facto endorsement of the non-aggressive interpretation.

The Registration Convention establishes a mandatory system of registration of space objects launched into orbit and beyond. Article IV of the Registration Convention requires mandatory reporting to the United Nations Secretary-General of information on data such as the date and location of the launch, changes in orbital parameters after the launch and the recovery date of the spacecraft. This information is to be provided “as soon as practicable”. In practice, this can take weeks or months. States are not obligated to disclose the true function of the satellite, but only the “general function of the space objects”.¹³

There have been increased calls over the years for improved reporting by states pursuant to the Registration Convention. Various proposals have been before the Conference on Disarmament (CD) to resolve some of these shortcomings.¹⁴

Mention should also be made of the International Telecommunication Convention adopted in 1992¹⁵ by the oldest UN agency, the International Telecommunications Union (ITU). The ITU governs the international use of the radio spectrum, which is considered to be a limited natural resource. As a limited natural resource, the spectrum will support a finite number of users among the radio frequencies before signal interference occurs. Article 35 of the ITU Convention stipulates that:

all stations, whatever their purpose, must be established and operated in such a manner as not to cause harmful interference to the radio services or communications of other members.

BILATERAL ARMS CONTROL AGREEMENTS

Several US–Soviet bilateral agreements adopted during the past 30 years or so are also relevant to international space law and space and security.

The 1972 Anti-Ballistic Missile (ABM) Treaty¹⁶ was intended to curb the nuclear arms race and reduce the risk of nuclear war between the superpowers by placing limitations on ABM systems and to prohibit the development, testing or deployment of space-based ABM systems or components.

Verification of treaty compliance was ensured by the use of National Technical Means (NTM) of verification: a wide array of intelligence gathering capabilities were used to collect data, including reconnaissance satellites. The ABM Treaty provides for the non-interference with NTM. As such, the treaty reinforced the legitimacy of space-based reconnaissance satellites and of data collection. The ABM Treaty's bilateral ban on the development, testing or deployment of space-based ABM systems expired along with all the other treaty's provisions when the United States withdrew from the agreement in June 2002.¹⁷ However, the principle of non-interference with NTM of verification can also be found in other US–Soviet arms control agreements, such as the 1979 Strategic Arms Limitation Talks (SALT II) Treaty,¹⁸ the 1987 Intermediate-range Nuclear Forces (INF) Treaty¹⁹ and the 1991 Strategic Arms Reduction Treaty (START I).²⁰ Moreover, the 1990 Conventional Armed Forces in Europe (CFE) Treaty²¹ contains non-interference provisions with NTMs as well as multinational technical means of verification.

Other bilateral agreements such as the Hot Line Modernization Agreement²² between the United States and the Soviet Union and the 1971 Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War²³ sought to improve communications between the superpowers and provide clarification of incidents. These agreements extended protection from interference to early warning satellite systems as well as to communications facilities.

Other agreements, such as the 1988 Launch Notification Agreement,²⁴ the 1989 Prevention of Dangerous Military Activities Agreement²⁵ and the Memorandum of Understanding establishing a Joint Data Exchange Center for sharing early warning information on missile and space launches,²⁶ provide mechanisms for the exchange of information pertaining to missile launch warning systems for each side, all ballistic missile launches and space launch vehicles.

The bilateral agreements described above establish a limited regime that seeks to protect satellites that are identified to perform a specific function and a limited and particular goal. Existing protection is limited to three types of satellites: early warning systems, reconnaissance satellites and communications satellites. The protection is also extended in application to the corresponding ground stations. These bilateral agreements highlight the

usefulness of confidence-building measures (CBMs) as a means of increasing transparency and providing stability.

INSTITUTIONAL FRAMEWORK

The key international space security-relevant institutions include the General Assembly, COPUOS and the CD.

The General Assembly has long recognized the contribution that the prevention of an arms race in outer space could make to nuclear disarmament and to the achievement of the goal of general and complete disarmament under effective international control, as undertaken by state parties to the Nuclear Non-Proliferation Treaty of 1968.

In adopting a programme of action in the field of disarmament at the 10th Special Session of the General Assembly (also referred to as the first Special Session on Disarmament) in 1978, Member States agreed that:

in order to prevent an arms race in outer space, further measures should be taken and appropriate international negotiations held in accordance with the spirit of the Outer Space Treaty.

Member States further agreed to establish a mechanism to implement the programme of action through a “single multilateral disarmament negotiating forum”, which later became known as the Conference on Disarmament (CD).

Since 1981, the First Committee of the General Assembly (Disarmament and Security) has deliberated and voted consistently and resoundingly on resolutions pertaining to the prevention of an arms race in outer space. These resolutions reflect the international community's growing concern with the inherent risks of the weaponization of outer space. Though non-binding, the resolutions are also indicative of a widespread desire to expand the existing multilateral agreements to include prohibition against weapons in space.

COPUOS has recently recognized the need for it to embark on a re-evaluation of the existing body of space law, and assess whether it is still adequate in regulating space activities of states and other entities governed

by the respective rules, particularly in view of the explosive growth of private commercial space activities.

COPUOS has two standing subcommittees: the Scientific and Technical Subcommittee and the Legal Subcommittee. COPUOS and its two subcommittees meet annually to consider questions put before them by the General Assembly and to address reports submitted that raise issues by Member States. Jointly the three committees make recommendations, based on consensus, to the General Assembly.

Through its Inter-Agency Space Debris Coordination Committee (IADC), COPUOS has played an important role in developing space debris mitigation guidelines.²⁷ All major space actors—civil, commercial and military—have identified this as a critical issue to solve in order to ensure security in the outer space environment. The guidelines are voluntary and as such not legally binding.

On numerous occasions, delegations have voiced concerns about growing space militarization and possible weaponization. In these instances, delegations have been reminded that the mandate of COPUOS is restricted to international cooperation in the peaceful uses of outer space, and is therefore not the proper forum to discuss these issues.

Since 1982, the CD has been called upon by the UN General Assembly to form an ad hoc Committee on the Prevention of an Arms Race in Outer Space (PAROS). From 1985 to 1994, the CD created such a committee, which has looked at various issues related to security challenges posed by human activity in outer space. Numerous working papers have been advanced dealing with issues such as:

- establishing rules of the road and a code of conduct;
- CBMs;
- information exchanges;
- pre-launch notification;
- keep-out zones;
- an international space inspectorate;
- space-based verification systems; and
- improving certain existing international agreements (notably the Outer Space Treaty and the Registration Convention).

The CD has been unable to agree on the formation of an ad hoc committee on PAROS since 1994. Nevertheless, a Chinese statement in 2000 and a joint Russia–China paper in 2002 contain elements of an international legal agreement on the prohibition of deployment of any weapons in outer space. It is hoped that the 2002 Five Ambassadors Initiative²⁸ will help break the impasse within the CD and allow the adoption of a programme of work for the ad hoc committee on PAROS.

FUTURE STEPS

Even if the CD were to adopt a programme of work, it is unlikely that it would have a mandate to negotiate a treaty. Therefore, an incremental approach in trying to prevent an arms race in outer space is the most promising approach at this point in time. Measures that should be considered include:

- establishing a mechanism for exchange of information between the CD and COPUOS;
- addressing the issue of CBMs for outer space with particular attention to pre- and post-launch notification; and
- pushing forward the adoption of the IADC debris mitigation guidelines so that it can then be added to the agenda of the Legal Subcommittee of COPUOS.

These modest steps would facilitate the process of preventing an arms race in outer space and would represent a step forward.

Notes

- ¹ General Assembly Resolution 1348 (XIII), 15 December 1958.
- ² General Assembly Resolution 1472 (XIV), 12 December 1959.
- ³ *Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water*, opened for signature on 7 October 1963, entered into force on 10 October 1963.
- ⁴ *Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies*, opened for signature 27 January 1967; entered into

- force 10 October 1967. As of 1 January 2003, the treaty had 98 state parties and had been signed by an additional 27 states.
- ⁵ *Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space*, opened for signature on 22 April 1968, entered into force on 3 December 1968. As of 1 January 2003, the agreement had 88 state parties and had been signed by 25 additional states.
- ⁶ *Convention on International Liability for Damage*, opened for signature on 29 March 1972, entered into force on 1 September 1972. As of 1 January 2003, the convention had 82 state parties and had been signed by 25 additional states.
- ⁷ *Convention on the Registration of Objects Launched into Outer Space*, opened for signature on 14 January 1975, entered into force on 15 September 1976. As of 1 January 2003, the convention had 44 state parties and had been signed by an additional 4 states.
- ⁸ *Agreement on the Activities of States on the Moon and Other Celestial Bodies*, opened for signature on 5 December 1979, entered into force on 11 July 1984. As of 1 January 2003, the agreement had 10 state parties and had been signed by five additional states. France is the only major space power to have signed this agreement.
- ⁹ *The Principles Governing the Use of States of Artificial Earth Satellites for International Direct Television Broadcasting*, General Assembly resolution 41/65 of 10 December 1982.
- ¹⁰ *The Principles Relating to Remote Sensing of the Earth from Outer Space*, General Assembly resolution 47/68 of 14 December 1986.
- ¹¹ *The Principles Relevant to the Use of Nuclear Power Sources in Outer Space*, General Assembly resolution 47/68 of 14 December 1992.
- ¹² *Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States Taking into Particular Account the Needs of Developing Countries*, General Assembly resolution 51/122 of 12 December 1996.
- ¹³ Article IV 1(e).
- ¹⁴ See *Study on the Application of Confidence-Building Measures in Outer space*, 1994, Centre for Disarmament Affairs, report of the Secretary-General, United Nations, New York, pp. 41–50.
- ¹⁵ *Constitution and Convention of the International Telecommunication Union: Final Acts of the Additional Plenipotentiary Conference*, 1992. For an excellent description of the role of the ITU, see F. Lyall, 1997, *Communications Regulations: the Role of the International Telecommunication Union*, *Journal of Information, Law and*

Technology, no. 3, 31 October, at <elj.warwick.ac.uk/jilt/commsreg/97_3lyal/lyall.DOC>.

- 16 *Treaty Between the United States and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems*, signed on 26 May 1972; entered into force on 3 October 1972.
- 17 The decision to withdraw from the ABM Treaty was based on a perceived change to the international security environment. It was argued that the new security environment required a “different approach to deterrence and new tools for defense”. The strategic logic of the Cold War was deemed not applicable to the new threats.
- 18 *Treaty between the United States and the Union of Soviet Socialist Republics on the limitation of strategic offensive arms*, signed on 18 June 1979; not in force.
- 19 *Treaty Between the United States and the Union of Soviet Socialist Republics on the elimination of their intermediate-range and short-range missiles (INF Treaty)*, 8 December 1987.
- 20 *Treaty on the reduction and limitation of strategic offensive arms (START I)*, 31 July 1991.
- 21 *Treaty on Conventional Arms in Europe (CFE)*, entered into force on 9 November 1992.
- 22 *Agreement on Measures to Improve the US–USSR Direct Communications Link*, signed on 30 September 1971, entered into force on 30 September 1971.
- 23 *Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the United States of America and the Union of Soviet Socialist Republics*, signed 30 September 1971, entered into force 30 September 1971.
- 24 *Agreement between the United States and the Union of Soviet Socialist Republics on notification of launches of intercontinental ballistic missiles and submarine launched ballistic missiles*, opened for signature on 31 May 1988, entered into force on 31 May 1988.
- 25 *Agreement between the United States and the Union of Soviet Socialist Republics on the prevention of dangerous military activities*, opened for signature on 12 June 1989, entered into force on 1 January 1990.
- 26 *Memorandum of Agreement between the United States and the Russian Federation on the establishment of a joint center for the exchange of data from early warning systems and notifications of missile launches*, entered into force on 4 June 2000.

- ²⁷ Inter-Agency Space Debris Coordination Committee (IADC), 2002, Space Debris Mitigation Guidelines, document A/AC.105/C.1/L.260 of 29 November, p. 8, section 5.2.
- ²⁸ Conference on Disarmament, 2002, *Letter dated 27 June 2002 from the Permanent Representative of the People's Republic of China and the Permanent Representative of the Russian Federation to the Conference on Disarmament addressed to the Secretary-General of the Conference transmitting the Chinese, English and Russian texts of a working paper entitled "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"*, CD document CD/1679.