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Widening the horizons of outer space law

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A:

THE LEGAL FRAMEWORK
FOR SPACE ACTIVITIES:
CURRENT AND FUTURE
CHALLENGES

ABSTRACT

The creation of space law is rooted in the aftermath of the Cold War. The two world powers of the time – the United States and the USSR – joined forces in the UNCOPUOS (UN Committee on the Peaceful Uses of Outer Space) to introduce law to outer space and ensure that the use and exploration of this domain was conducted for peaceful purposes.

Against this backdrop, the negotiations underlying the drafting of the Magna Carta of outer space – the Outer Space Treaty – demonstrate how these two world powers set aside various political differences to reach a legal compromise for the benefit of the world as a whole. Today, half a century after this milestone, the landscape of the use and exploration of outer space has changed dramatically, particularly in terms of the technology involved. As a result, the question is whether international space law and UNCOPUOS are still able to provide a relevant framework within which the peaceful use and exploration of outer space can progress.

Keywords: space law, outer space, COPUOS, Outer Space Treaty, peaceful purposes

1 INTRODUCTION

This chapter addresses the context in which the law of outer space has evolved under the auspices of the United Nations (UN) and indicates how the most fundamental legal instrument relating to outer space – the “Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies” – was formulated and adopted. Further, this chapter provides a brief overview of the key aspects of the UN legal regime for space activities and indicates its effectiveness over time. The chapter concludes with an assessment of the robustness of this regime in view of future developments and new activities in the highly dynamic field of space exploration and use. To this end, it will be argued that the drafters of the UN space treaties demonstrated great

* *The Oxford Handbook of United Nations Treaties*, Simon Chesterman, David M. Malone and Santiago Villalpando (eds.), (Oxford University Press, 2019), pp. 181-198, DOI: 10.1093/law/9780190947842.003.0012 (with Roberto Cassar).

wisdom, vision, and craftsmanship when creating this legal regime that has stood the test of time, despite the challenges it has faced and will continue to face as the privatization and commercialization of space activity increase and necessitate a further evolution of its constituent rules.

The law of outer space primarily lays down what is, and what is not permitted when using and exploring outer space. Space law is composed of hard law and soft law; it includes instruments containing legally binding obligations (i.e., “hard” law),¹ as well as non-legally-binding instruments used to express preferences, rather than obligations, that States should act or refrain from acting in a specific manner (i.e., “soft” law).² The present chapter mainly focuses on the evolution of the former, as it is comprised of treaties, whereas the evolution of the latter shall only be mentioned in passing.

Before analysing the *evolution* of hard space law, the *genesis* of space law, set amidst the Cold War and the creation of the UN, will be contextualized. Accordingly, the analysis begins in September 1945.

2 THE GEOPOLITICAL CONTEXT OF THE GENESIS OF SPACE LAW

At the end of World War II, a vacuum of power engulfed Europe and separated the two great powers of the time: the United States of America and the Union of Soviet Socialist Republics (USSR).

As history goes on to prove, it was impossible for these two powers to fill this vacuum without bruising each other’s interests.³ Conceivably the most fundamental disagreement between the United States and the USSR was whether capitalism or socialism was the best socioeconomic system to attain modernity.⁴ So strong was this ideological conflict that it not only percolated through the global political arena,⁵ but morphed over time into a military one as both powers began to acquire and expand stockpiles of nuclear weapons capable of destroying humanity as a whole.⁶ Although the international landscape was thus dominated by an intensely bipolar structure of world power that in its own right yielded a form of stability and predictability, this came at the enormous price of a risk of nuclear war.⁷

1 Kenneth W Abbott and Duncan Snidal, “Hard and Soft Law in International Governance” (2000) 54 *Intl Org* 421.

2 Alan Boyle and Christine Chinkin, *The Making of International Law* (OUP 2007) 212; Joseph Gold, *Interpretation: The IMF and International Law* (Kluwer 1996) 301.

3 John Lewis Gaddis, *We Now Know: Rethinking Cold War History* (Clarendon 1997) 11.

4 Naoko Shibusawa, “Ideology, Culture, and the Cold War” in Richard H Immerman and Petra Goedde (eds), *The Oxford Handbook of the Cold War* (OUP 2013) 32, 41.

5 Allen Lynch, *The Soviet Study of International Relations* (CUP 1987) 95.

6 Akira Iriye, “Historicizing the Cold War” in Immerman and Goedde (n 4) 15, 21.

7 Douglas A Ross, “Multilateralizing the Nuclear Disarmament Process: Next Steps after the START Agreement” in Edward McWhinney, Douglas Ross, Grigory Tunkin, and Vladlen Vereshchetin (eds), *From Coexistence to Cooperation: International Law and Organization in the Post-Cold War Era* (Martinus Nijhoff 1991) 62.

This risk reached even more distressing heights some 10 years into the Cold War, specifically on October 4, 1957, for on that day, by successfully launching the first artificial satellite “Sputnik I” into outer space, the USSR demonstrated that it possessed the ability to launch intercontinental ballistic missiles and deliver nuclear warheads to anywhere on earth.⁸ In doing so, the USSR brought about a paradigm shift in the invulnerability of the United States. While throughout most of its history the latter had not needed to worry much about the security of its land owing to its geographical separation by the oceans from direct threats,⁹ this illusion of its territorial inaccessibility was abruptly dispelled with the launch of “Sputnik I”.¹⁰

Reverting at this juncture to the wake of World War II, we can shift our focus from the unfolding of the Cold War to the synchronous establishment of a new legal world order in lieu of the failed League of Nations.¹¹ This new organization, eventually named the “United Nations” was to symbolize the birth of a new world wherein peace would be effectively safeguarded.¹² The purpose of the UN, therefore, was none other than world peace.¹³

From the above account it follows quite unsurprisingly that, less than six weeks after the launch of “Sputnik I” and its exacerbation of the spectre of nuclear war, the UN General Assembly emphasised the urgency of decreasing the danger of war,¹⁴ and took the stance that outer space should be used *exclusively* for peaceful purposes.¹⁵ This, eventually, not only led to the regulation of an entirely new domain – outer space – whose characteristics and possibilities were hardly known at the time, but it also made the law of outer space quite unlike that of any other area ever regulated under UN auspices, signalling the creation of a new branch of public international law.

Months later, during the first quarter of 1958, the United States and the USSR followed suit: in January, US president Eisenhower suggested in a letter to USSR premier Bulganin that their nations should both agree to use outer space for peaceful purposes only;¹⁶ in March, the USSR submitted a

8 Richard Pipes, *U.S.-Soviet Relations in the Era of Détente* (Westview 1981) 141–42; John Prados, “Cold War Intelligence History” in Immerman & Goedde (n 4) 414, 425.

9 John Lewis Gaddis, *The Cold War: A New History* (Penguin 2005) 15.

10 B Artemov, “O Sovetsko-Amerikanskikh Otnosheniakh” (1958) 11 Mirovaia Ekonomika I Mezhdunarodnye Otnosheniia 15, 22; as cited in William Zimmerman, *Soviet Perspectives on International Relations, 1956–1967* (Princeton University Press 1973) 172.

11 Franz Cede, “Historical Introduction” in Franz Cede and Lilly Sucharipa-Behrmann, *The United Nations: Law and Practice* (Kluwer Law International 2001) 3, 5–6.

12 Evan Luard, *A History of the United Nations: Volume 1: The Years of Western Domination, 1945–1955* (Macmillan Press 1982) 17.

13 Hans Kelsen, *The Law of the United Nations: A Critical Analysis of Its Fundamental Problems* (Praeger 1950) 19.

14 UNGA Res 1148 (XII) (14 November 1957), preambular para. 2.

15 *Ibid* para 1(f) (emphasis added).

16 Letter by Dwight D Eisenhower to Nikolai Bulganin (12 January 1958) reprinted in (1958) 38 Department of State Bulletin (USA) 122, 126.

provisional agenda item for consideration by the General Assembly wherein it proposed that outer space should not be used for military purposes.¹⁷

Although from this rather brief course of events it may be deduced that there was indeed an understanding between the United States and the USSR that some regulation of the use of outer space was required and that such regulation should be dealt with within the newly established UN,¹⁸ this understanding ought to not however eclipse the fact that the two powers disagreed over *how* such regulation was to be achieved. On the one hand, in a draft resolution to the First Committee of the General Assembly,¹⁹ the USSR proposed the establishment of a UN agency for international cooperation in the study of cosmic space.²⁰ On the other, in a separate draft resolution to the same Committee, the United States and 19 additional States counter-proposed the establishment by the General Assembly of an ad hoc committee on the peaceful uses of outer space.²¹

Pursuant to the counterproposal of the latter, the USSR revised its draft resolution and abandoned the idea of a UN agency,²² suggesting instead the establishment of a UN committee for cooperation in the study of outer space for peaceful purposes, and a preparatory group thereof consisting of representatives of several States.²³ The United States and its 19 allies,

17 "Union of Soviet Socialist Republics: Request for the Inclusion of an Item in the Provisional Agenda of the Thirteenth Session" (17 March 1958) A/3818; reprinted in GAOR 13th Session Annexes, Agenda Item 60 1.

18 Stephan Hobe, "Historical Background" in Stephan Hobe, Bernhard Schmidt-Tedd & Kai-Uwe Schrogl (eds), *Cologne Commentary on Space Law: Volume 1* (Carl Heymanns Verlag 2009) 4.

19 This draft resolution was submitted to the First Committee since, in September, the UNGA had referred to it a single "Question of Peaceful Use of Outer Space" for consideration and report; Howard J Taubenfeld, "Consideration at the United Nations of the Status of Outer Space" (1959) 53(2) *American Journal of International Law* (hereafter *AJIL*) 400.

20 "Union of Soviet Socialist Republics: Draft Resolution" (7 November 1958) A/C.1/L.219 reprinted in GAOR 13th Session Annexes, Agenda Item 60 4, 4–5. Note that the USSR had already proposed the establishment of such a UN agency in March when it submitted the provisional agenda item for consideration by the UNGA; "Union of Soviet Socialist Republics: Request for the Inclusion of an Item in the Provisional Agenda of the Thirteenth Session" (17 March 1958) A/3818 reprinted in GAOR 13th Session Annexes, Agenda Item 60 1, 3.

21 "Australia, Belgium, Bolivia, Canada, Denmark, France, Guatemala, Ireland, Italy, Japan, Nepal, Netherlands, New Zealand, Sweden, Turkey, Union of South Africa, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay and Venezuela: Draft Resolution" (13 November 1958) A/C.1/L.220 reprinted in GAOR 13th Session Annexes, Agenda Item 60 5, 5–6.

22 Philip C Jessup & Howard J Taubenfeld, *Controls for Outer Space and the Antarctic Analogy* (Columbia University Press 1959) 255.

23 The representatives proposed were those of the USSR, the United States, the United Kingdom (UK), France, India, Czechoslovakia, Poland, Romania, the United Arab Republic (UAR), Sweden and Argentina; "Union of Soviet Socialist Republics: Revised Draft Resolution" (18 November 1958) A/C.1/L.219/Rev.1 reprinted in GAOR 13th Session Annexes, Agenda Item 60 5.

all of whom objected to the revised USSR suggestion on the ground that the component States of the proposed preparatory group were either Soviet satellites or unfriendly neutral States,²⁴ responded by revising their own draft resolution and counter- suggesting that their proposed ad hoc committee consist of a set of different States.²⁵

Evidently, a compromise on the composition and permanence of the proposed UN committee was unattainable.²⁶ Thus, the USSR withdrew its draft resolution, arguing that it had been submitted as a basis for a *unanimous* decision without which it would not be put to a vote.²⁷ With this withdrawal, the path for the revised resolution of the United States and its allies was cleared, allowing it to be adopted as a whole by 54 votes to 9 with 18 abstentions.²⁸

Ultimately and albeit over Soviet bloc dissent,²⁹ the General Assembly adopted a resolution³⁰ whereby, in recognizing the common aim that outer space should be used exclusively for peaceful purposes, and in considering that international cooperation in the study and utilization of outer space for peaceful purposes will promote the strengthening of friendly relations among peoples,³¹ it established an Ad Hoc Committee on the Peaceful Uses of Outer Space.³² The Committee on the Peaceful Uses of Outer Space, or COPUOS, was born.

3 THE ADVENT OF SPACE LAW

The establishment of COPUOS marks an important milestone in the regulation of the use and exploration of outer space for, by growing over time into *the* forum for international cooperation in the peaceful uses of outer space,³³ this Committee catalysed the advent of space law. With its initial task, this Ad Hoc Committee sought to determine, inter alia, the nature of the legal

24 Jessup and Taubenfeld (n 22) 256.

25 The States suggested were Argentina, Australia, Belgium, Brazil, Canada, Czechoslovakia, France, India, Iran, Italy, Japan, Mexico, Poland, Sweden, the USSR, the UAR, the UK and the United States; A/C.1/L.220/Rev.1, as cited in "Report of the First Committee" (28 November 1958) UN Doc A/4009 reprinted in GAOR 13th Session Annexes, Agenda Item 60 6, 7.

26 Taubenfeld (n 19) 402.

27 "Report of the First Committee" (28 November 1958) A/4009 reprinted in GAOR 13th Session Annexes, Agenda Item 60 6, 8 (emphasis added).

28 *Ibid* 8.

29 Philip C Jessup & Howard J Taubenfeld, "The United Nations Ad Hoc Committee on the Peaceful Uses of Outer Space" (1959) 53(4) AJIL 877.

30 UNGA Res 1348 (XIII) (13 December 1958).

31 *Ibid*, preambular para 1; 8.

32 *Ibid*, para 1.

33 Nandasiri Jasentuliyana, *International Space Law and the United Nations* (Kluwer 1999) 21 (emphasis added).

problems that could arise in the conduct of space activities.³⁴ When this was completed, in the summer of 1959,³⁵ COPUOS presented a report³⁶ to the General Assembly containing a multitude of considerations.

One of these considerations suggested that:

'[Because] countries throughout the world proceeded on the premise of the permissibility of the launching and flight of space vehicles which were launched, regardless of what territory they passed "over" during the course of their flight through outer space [...], there may have been initiated the recognition or establishment of a generally accepted rule to the effect that, in principle, outer space is, on conditions of equality, freely available for exploration and use by *all* in accordance with existing or future international law or agreements.'³⁷

Thus, in a legal-first, COPUOS pronounced the unique feature of the "freedom" of outer space³⁸ – a proposition that went unchallenged by all States.³⁹ Following its consideration of this report, toward the end of 1959 the General Assembly decided to convert the Committee from ad hoc to permanent.⁴⁰ With this now permanent status, COPUOS set out to regulate activities conducted in outer space so as to prevent and avoid the development of haphazard practices dictated by national interests.⁴¹

COPUOS presented the fruit of its first negotiations to the General Assembly two years later.⁴² In its report, COPUOS reiterated and elaborated upon the previous legal consideration of the Ad Hoc Committee that outer space was a *res communis*.⁴³ It further formulated two principles of utmost

34 UNGA Res 1348 (XIII) (n 30) para 1(d).

35 C Wilfred Jenks, *Space Law* (Stevens & Sons 1965) 52–53. This task was completed notwithstanding the refusal of the USSR, Poland, and Czechoslovakia (as well as India and the UAR) to participate; Myres S McDougal, Harold D Lasswell, and Ivan A Vlasic, *Law and Public Order in Space* (Yale University Press 1963) 210. In this regard it is to be stated that India and the UAR presumably kept a distance to avoid involvement in what may have appeared to be a "Cold War" dispute; Jessup and Taubenfeld (n 29) 877.

36 COPUOS "Report of the *Ad Hoc* Committee on the Peaceful Uses of Outer Space" (25 June 1959) A/4141.

37 *Ibid*, 23 para 9 (emphasis added).

38 Walter A McDougal, *The Heavens and the Earth: A Political History of the Space Age* (Basic Books 1985) 192.

39 The "freedom" of outer space also went unchallenged by those States that had refused to participate since, although they refused to endorse the report of COPUOS, this refusal was directed against the composition of COPUOS rather than the results of its deliberations, meaning in turn that this refusal should not be interpreted as implying rejection of the "freedom" principle; McDougal, Lasswell, and Vlasic (n 35) 211.

40 UNGA Res 1472 A (XIV) (12 December 1959) para 1.

41 "Era infatti urgente evitare lo sviluppo di pratiche dettate esclusivamente da interessi nazionali"; Sergio Marchisio, "Il Diritto delle Attività Spaziali nell'Era della Cooperazione" in Antonello Folco Biagini & Mariano Bizzarri (eds), *Spazio. Scenari di Collaborazione: Note di Diritto Internazionale* (Passigli Editori 2013) 12.

42 See UNGA Res 1721 (XVI) (20 December 1961).

43 *Supra* (n 37). For more on the *res communis* nature of outer space see Steven Free land and Ram Jakhu, "Article II" in Hobe et al (n 18) 46.

importance, which were sanctioned by the General Assembly in its resolution 1721 (XVI), namely (1) that outer space and celestial bodies, unlike newly discovered continents and seas on earth, are not subject to national appropriation and are free for exploration and use by all States, and (2) that international law, including the Charter of the United Nations, applies to outer space and celestial bodies.⁴⁴ These principles are in fact so important that, apart from serving as the foundation upon which contemporary space law is erected,⁴⁵ they reverberate in contemporary space law itself.⁴⁶

In the following years, COPUOS continued its institutional consolidation with the establishment of two subsidiary organs in 1962, namely its Legal Subcommittee and its Scientific and Technical Subcommittee.⁴⁷ This was followed by an even more remarkable accomplishment when COPUOS submitted, for consideration by the General Assembly, a draft Declaration of Legal Principles Governing the Activities of States in the Exploration and Uses of Outer Spaces.⁴⁸ This declaration (hereinafter the “Declaration of Legal Principles”) was adopted by the General Assembly under resolution 1962 (XVIII)⁴⁹ and it represents a fundamental step in the codification of space law.⁵⁰

By galvanizing the two principles pronounced in resolution 1721 (XVI) and enshrining a further seven,⁵¹ the Declaration of Legal Principles was the first significant document articulating legal principles on the conduct of activities in outer space.⁵² One of the seven additional principles however stands out significantly, especially in terms of the currently increasing privatization and commercialization of space activities. This addition is

44 UNGA Res 1721 A (XVI), para 1.

45 Hobe et al (n 18) 12.

46 Jenks (n 35) 54–55; Katrin Nyman-Metcalf, “Space for the Benefit of Mankind? New Developments and Old Problems” (2009) 34 *Annals of Air and Space Law* (hereafter AASL) 621, 624.

47 Sergio Marchisio, “The Evolutionary Stages of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS)” (2005) 31 *J Space Law* 219, 223.

48 Vladimir Kopal, “United Nations and the Progressive Development of International Space Law” (1996) 7 *Finnish Yearbook of International Law* 1, 7; Martin Menter, “The Developing Law for Outer Space” (1967) 53 *ABA J* 703.

49 UNGA Res 1962 (XVIII) (13 December 1963).

50 “Cette Résolution marque une étape fondamentale dans la codification du droit de l’espace”; Armand D Roth, *La Prohibition de l’Appropriation et les Régimes d’Accès aux Espaces Extra-Terrestres* (Presses Universitaires de France 1992) 47.

51 UNGA Res 1962 (XVIII). Note that it is paragraphs 2–4 of this resolution that galvanize the two principles proclaimed in resolution 1721 (XVI).

52 Karin Traunmüller, “The ‘Declaration of Legal Principles Governing the Activities of States in the Exploration of Outer Space’: The Starting Point for the United Nations’ Law of Outer Space” in Irmgard Marboe (ed), *Soft Law in Outer Space: The Function of Non-binding Norms in International Space Law* (Böhlau 2012) 145; Fabio Tronchetti, *The Exploitation of Natural Resources of the Moon and Other Celestial Bodies: A Proposal for a Legal Regime* (Martinus Nijhoff 2009) 16.

paragraph 6 of the Declaration of Legal Principles, which provides that States shall bear international responsibility for national activities in outer space, including those by nongovernmental entities, and that activities of nongovernmental entities in outer space shall require authorization and continuing supervision by the State concerned.⁵³

Resolution 1962 (XVIII), which embodies the cardinal early normative framework for space activities,⁵⁴ is thus “the first chapter in the book of space law.”⁵⁵

3.1 The Evolution of Hard Space Law

Notwithstanding the swift pace at which COPUOS progressed in its nascent stages, its work appeared to hit a plateau in the three years following the adoption of the Declaration of Legal Principles. As the then-Chairman of the Legal Subcommittee stated during its fifth session toward the end of 1966, “in [those three years] little progress had been made towards ensuring that outer space was used for [the] advancement [of man] and not for his destruction.”⁵⁶

Yet, less than half a year later and barely 10 years after the decision was made to regulate this new domain of human endeavour, COPUOS presented to the General Assembly a treaty that the latter unanimously commended,⁵⁷ and that eventually became known as the Magna Carta of space law:⁵⁸ the “Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies” (the “Outer Space Treaty” or OST).⁵⁹

The rationale behind the OST was to crystallize the legal principles set forth in resolution 1962 (XVIII) for, although the latter was adopted unanimously⁶⁰ and although States, in principle, were and are to respect

53 UNGA Res 1962 (XVIII) (n 49) para 6.

54 Hobe et al (n 18) 13.

55 Bin Cheng, “United Nations Resolutions on Outer Space: ‘Instant’ International Customary Law?” (1965) 5 *Indian J. Int. Law* 23.

56 COPUOS LSC “Summary Record of the Fifty-Seventh Meeting” (20 October 1966) A/AC.105/C.2/SR.57 2–3; Bin Cheng, *Studies in International Space Law* (Clarendon 1999) 216.

57 UNGA Res 2222 (XXI) (19 December 1966).

58 Stephan Hobe, “Outer Space as the Province of Mankind – An Assessment of 40 Years of Development” (2007) 50 *Proceedings of the International Institute of Space Law* (hereafter *PIISL*) 442; Francis Lyall and Paul B Larsen, *Space Law: A Treatise* (2nd ed., Routledge 2018) 49.

59 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (adopted 19 December 1966, entered into force 10 October 1967) 610 UNTS 205. As at January 1, 2018, the OST has been ratified by 107 States and signed by another 23 States; COPUOS LSC “Status of International Agreements relating to activities in outer space as at 1 January 2018” (9 April 2018) A/AC.105/C.2/2018/CRP.3 10.

60 James Crawford, *Brownlie’s Principles of Public International Law* (OUP 2012) 42, fn 143.

it by virtue of the maxim *venire contra factum proprium non valet*,⁶¹ being a resolution, it could not be deemed legally binding.⁶²

The OST rectified this weakness, and with virtually all its provisions, except Article IV, being already agreed upon in the Declaration of Legal Principles,⁶³ it expanded the latter into a *binding* legal framework for the exploration and use of outer space.⁶⁴

Prior to analysing how the negotiations evolved from that day onward, it is vital to mention that they were successful first and foremost by virtue of the then-Chairman of the LSC of COPUOS: Judge Manfred Lachs. It is beyond any doubt that the United States and the USSR reached a compromise and eventual agreement on the OST thanks to his diplomatic skills and legal brilliance, making him, in his own right, as much a father of this treaty as the States that negotiated it.⁶⁵

3.2 Negotiating the Outer Space Treaty

Set amidst the Cold War, it comes as no surprise that the OST was the product of negotiations between the two major players thereof: the United States and the USSR. These negotiations in fact began on May 11, 1966, nearly three months after the landing of the Soviet “Luna IX” on the moon.⁶⁶

On that day, the United States proposed to the USSR an outline of 12 points, which, the former opined, were to be included in a treaty governing

61 “‘To come against one’s own fact (is not allowed).’ A maxim of customary international law meaning that one may not set one’s self in contradiction to one’s own previous conduct”, Aaron X Fellmeth and Maurice Horwitz, *Guide to Latin in International Law* (OUP 2009) 290.

62 Alex Meyer, “Der Weltraumvertrag” (1967) 16 *Zeitschrift für Luft- und Weltraumrecht* (hereafter ZLW) 65, 69; UN Office of Legal Affairs “Use of the Terms ‘Declaration’ and ‘Recommendation’” (2 April 1962) E/CN.4/L.610 1–2; Cheng (n 56) 133.

63 Bin Cheng, “The 1967 Outer Space Treaty: Thirtieth Anniversary” (1998) 23 *Air and Space Law* 156.

64 *Ibid*; Bin Cheng, “Outer Void Space: The Reason for this Neologism in Space Law” (1999) *Australian Intl Law J* 1, 4.

65 See the chapter about Manfred Lachs’ contributions to the field of space law by Francis Lyall in Stephan Hobe (ed), *Pioneers of Space Law* (Nijhoff 2013), 193–209. Among Manfred Lachs’ many writings in the field, special mention should be made of his excellent book *The Law of Outer Space, an Experience in Contemporary Law-Making* (Sijthoff 1973, republished by the IISL, Nijhoff 2010) and his course *The International Law of Outer Space* at The Hague Academy of International Law, *Recueil des Cours* (1964–III) 1–114.

66 Cheng, (n 56) 220. Note that negotiations between the United States and the USSR had already been undertaken with regard to the Declaration of Legal Principles. For instance, in negotiating this resolution, the United States and USSR reached a compromise on whether private activities in outer space could be allowed, with the former being in favour and the latter against. For more on the matter see Jenks (n 35) 210–12.

the exploration of the moon and other celestial bodies.⁶⁷ Swift in its reply, on May 30, the USSR requested the inclusion of the item "Conclusion of an international agreement on legal principles governing the activities of States in the exploration and conquest of the Moon and other celestial bodies" in the agenda of the 21st session of the General Assembly.⁶⁸

Accordingly, the USSR submitted the text of a draft treaty on June 16, 1966,⁶⁹ in light of which the United States submitted the text of its own draft treaty that same day.⁷⁰ Juxtaposing the draft of the USSR with that of the United States, a clear difference between the two emanates. The Soviet draft was intended as a general treaty on principles governing the activities of States in the exploration and use of outer space, including the moon and other celestial bodies,⁷¹ and thus may be regarded as a direct implementation of the Declaration of Legal Principles.⁷² The US draft had its scope limited to the moon and other celestial bodies,⁷³ and rather than attempting to convert resolution 1721 (XVI) and the Declaration of Legal Principles into hard law, it represented more of an adaptation of these resolutions to the special circumstances of the moon and other celestial bodies.⁷⁴

Thus, at the opening of the fifth session of the Legal Subcommittee, on July 12, 1966, the debate revolved around two drafts of a rather different nature, and although it soon became clear that most States were in favour of the USSR draft, substantial support was also found for many of the novel features included in the US draft.⁷⁵

The general debate ended in a spirit of cooperation between the United States and the USSR, with each declaring its readiness to consider the possibility of incorporating in its draft those features that appeared

67 "Letter dated 16 June 1966 from the Permanent Representative of the United States of America addressed to the Chairman of the Committee on the Peaceful Uses of Outer Space" (17 June 1966) A/AC.105/32. The 12 points were namely: freedom of exploration, non-appropriation, freedom of and cooperation in scientific investigations, reporting of findings, open access to all areas, non-militarization, jurisdiction of the launching State, ownership of objects launched into space, mutual assistance among astronauts, avoidance of harmful contamination, settlement of disputes, and final clauses; *ibid.* 1-2.

68 "Union of Soviet Socialist Republics: request for the inclusion of an item in the provisional agenda item of the twenty-first century" (31 May 1966) A/6341.

69 "Letter dated 16 June 1966 from the Permanent Representative of the Union of Soviet Socialist Republics to the United Nations Addressed to the Secretary-General" (16 June 1966) A/6352.

70 "Draft Treaty Governing the Exploration of the Moon and Other Celestial Bodies: Letter dated 16 June 1966 from the Permanent Representative of the United States of America addressed to the Chairman of the Committee on the Peaceful Uses of Outer Space" (17 June 1966) A/AC.105/32.

71 Paul G Dembling and Daniel M Arons, "The Evolution of the Outer Space Treaty" (1967) 33 J Air Law and Commerce 419, 428.

72 Cheng (n 56) 221.

73 Dembling and Arons (n 71) 428.

74 Cheng (n 56) 221.

75 *Ibid.*

in the proposal of the other.⁷⁶ By way of example, the United States not only agreed to enlarge the scope of the treaty to apply to celestial bodies *and* outer space,⁷⁷ but also indicated its general preparedness to accept all proposals in the draft of the USSR that incorporated the terms of previous General Assembly resolutions on outer space.⁷⁸ Likewise, the USSR not only accepted the principles of freedom of, and international cooperation in scientific investigations contained in the draft of the United States,⁷⁹ but also demonstrated readiness to accept the proposal of the United States of free access to all installations on celestial bodies.⁸⁰

As a result, agreement was reached quite smoothly on what consequently became the first nine articles of the treaty, even though insofar as the substantive articles of the treaty were concerned, agreement had yet to be reached on several facets.⁸¹ One of these facets that proved to be a major stumbling block for the treaty as a whole was the Soviet proposal that each contracting State must grant equal rights, subsequently limited to equal facilities for tracking space objects, to all other contracting States engaged in the exploration of outer space.⁸² When the Legal Subcommittee resumed its fifth session on September 12, 1966, it became clear that its members, bar those in the Soviet bloc, were generally unwilling to agree to the equivalent of an unconditional "most-favoured nation clause" on tracking facilities.⁸³ This seemed problematic since the USSR made it clear that it regarded this provision *a sine qua non* of the treaty; without an agreement on this article, the USSR was not prepared to take the treaty further.⁸⁴

No further progress had been made by the time COPUOS reconvened on September 19, 1966.⁸⁵ However, on September 22, the United States informed the USSR that, if the latter truly desired to provide for tracking coverage from US territory, it was prepared to discuss with Soviet representatives the technical and other requirements involved with a view to reaching some mutually beneficial agreement.⁸⁶ Consequently, on October 4, the USSR submitted a revised draft of its treaty, the terms of which show that it had reached a compromise with the United States on

76 COPUOS LSC "Summary Record of the Sixty-Second Meeting" (24 October 1966) A/AC.105/C.2/SR.62 10–12.

77 COPUOS LSC "Summary Record of the Sixty-Third Meeting" (20 October 1966) A/AC.105/C.2/SR.63 2–3 (emphasis added).

78 Cheng (n 56) 222.

79 COPUOS LSC "Summary Record of the Sixty-Third Meeting" (n 77) 4–5.

80 *Ibid.*

81 Cheng (n 56) 222.

82 *Ibid.* 222–23; Dembling and Arons (n 71) 442.

83 Cheng (n 56) 223.

84 *Ibid.*

85 Dembling and Arons (n 71) 444.

86 UN, First Committee of the General Assembly "Twenty-First Session" (22 September 1966) A/PV.1412 41.

tracking facilities,⁸⁷ along with agreement on several other facets such as the preamble, the use of military equipment, and the conditions governing visits to installations on celestial bodies.⁸⁸

With this progress, minor formalistic issues were creased out and, on December 8, complete agreement was achieved.⁸⁹ The agreed text was submitted to the First Committee of the General Assembly on December 15,⁹⁰ which adopted it without objection on December 17.⁹¹ Ultimately, the treaty was opened for signature on January 27, 1967, and came into force on October 10, 1967.

3.3 Beyond the Outer Space Treaty

Now that we have seen how the OST was brought to life, it is possible to provide some insight on its substance. Insight can be also provided on the substance of the four other treaties that followed the Magna Carta of space law, which, along with their predecessor, form the hard law regime of outer space.

Composed of 13 substantive articles,⁹² the OST lays down *the* fundamental legal rules on the use and exploration of outer space. While Articles I, II, and III of the OST expand upon what by then had become rather clear principles of space law—that is, the principles that the use and exploration of outer space shall be the province of all mankind, that any sovereign or territorial claims in outer space are prohibited, and that space activities shall not violate international law, including the UN Charter—its subsequent provisions articulate an array of diverse and often innovative principles.

Key among these other articles is Article IV, which, although far less celebrated than the previous three, provides the principle that the moon and other celestial bodies are to be used exclusively for peaceful purposes.⁹³

⁸⁷ Cheng (n 56) 224.

⁸⁸ *Ibid.*

⁸⁹ *Ibid.*

⁹⁰ “International Co-operation in the Peaceful Uses of Outer Space: Report of the Committee on the Peaceful Uses of Outer Space” (15 December 1966) A/AC.1/L.396; “International Co-operation in the Peaceful Uses of Outer Space: Report of the Committee on the Peaceful Uses of Outer Space” (15 December 1966) A/AC.1/L.396/Add.1; “International Co-operation in the Peaceful Uses of Outer Space: Report of the Committee on the Peaceful Uses of Outer Space” (15 December 1966) A/AC.1/L.396/Add.2.

⁹¹ UN, First Committee of the General Assembly “Twenty-First Session” (17 December 1966) A/AC.1/SR.1493 445, para 86.

⁹² Articles XIV to XVI of the OST only deal with certain non-substantive formalities; Carl Q Christol, *Modern International Law of Outer Space* (Pergamon Press 1982) 49.

⁹³ Note that the term “peaceful purposes” poses some difficulty as to its true meaning; Julia Neumann, “An Interpretation of the Outer Space Treaty after 40 Years” (2007) 50 *PIISL* 431, 437. This notwithstanding, State practice over the years has generally supported the view that “peaceful purposes” means “non-aggressive purposes”; therefore, although space objects have been used extensively to support military operations here on earth, weapons per se have never actually been deployed in outer space; Space Security Index 2004, “Chapter 2: Space Security Laws, Policies, and Doctrines” (2005) 30(2) *AASL* 343, 346.

The importance of this principle cannot be stressed enough: were it not for this principle, it is plausible that, by now, weapons would have been warehoused in outer space, with earth being their primary target. It is therefore by virtue of Article IV that life on earth has been able to flow on in relative peace.

Over and above Articles I, II, III, and IV, the other articles of the OST *inter alia* provide that States are internationally responsible for governmental and private activities in outer space,⁹⁴ that States are liable for damages caused by space objects they launch,⁹⁵ and that States retain jurisdiction and control over the space objects they register.⁹⁶

Although the OST was a momentous leap in the evolution of space law, in view of the broadness of its legal rules it soon came to be seen as requiring further elaboration,⁹⁷ and to this end four more treaties were negotiated under the auspices of the UN. These four subsequent treaties did not deviate from the OST; mostly, they served to elaborate on the basic principles enshrined within it so much so that they could be considered as a *lex specialis* thereof. However, a unique and new feature that was introduced in these four treaties is the possibility for intergovernmental organizations to declare their acceptance of the rights and obligations under them, and indeed, several of such organizations⁹⁸ have done so for the first three treaties addressed in this section.

The first of these additional treaties was the Agreement on the Rescue of Astronauts, the

Return of Astronauts and the Return of Objects Launched into Outer Space (the “Rescue Agreement”), adopted on December 19, 1967.⁹⁹ This treaty is an earth-oriented instrument as it provides that a State that learns that either an astronaut, or a space object, has landed anywhere on earth other than in the territory of another State, shall notify the launching authority and the Secretary-General of the UN of that landing,¹⁰⁰ and shall help return the astronaut or space object safely to the launching authority.¹⁰¹

94 OST (n 59) art VI.

95 *Ibid* art VII.

96 *Ibid* art VIII.

97 Frans von der Dunk, “International Space Law” in Frans von der Dunk and Fabio Tronchetti (eds), *Handbook of Space Law* (Edward Elgar 2015) 39.

98 These IGOs are the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) and the European Space Agency (ESA) for the first three treaties hereunder addressed, the European Telecommunications Satellite Organization (EU TELSAT) for the second and the third, and the Intersputnik International Organization of Space Communications for the third treaty only.

99 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (adopted 19 December 1967, entered into force 3 December 1968) 672 UNTS 119. As at January 1, 2018, the Rescue Agreement has been ratified by 96 States, signed by 23 States, and 2 international organizations have deposited a declaration of acceptance of its rights and obligations; COPUOS LSC (n 59).

100 Rescue Agreement arts 1 and 5.

101 *Ibid* arts 2 to 5.

Following this treaty came the Convention on International Liability for Damage Caused by Space Objects (the “Liability Convention”) of November 29, 1971,¹⁰² which was crafted so as to build upon the principle of liability held within Article VII of the OST.¹⁰³ In achieving this, the Liability Convention provides that a “launching State”¹⁰⁴ is absolutely liable to pay compensation for damages caused by its “space object”¹⁰⁵ on the surface of earth or to aircraft in flight.¹⁰⁶ Furthermore, a State is liable to pay compensation if its space object causes “damage”¹⁰⁷ elsewhere than on the surface of the earth to a space object, or persons or property on-board it, due to the fault of persons for whom it, as a State, is responsible.¹⁰⁸

The third treaty following the OST was the Convention on Registration of Objects Launched into Outer Space (the “Registration Convention”), adopted on November 12, 1974.¹⁰⁹ This treaty refined the registration principle contained in Article VIII of the OST by establishing, at its core, a dual system of registration of objects launched into outer space.¹¹⁰ Thus, the Registration Convention first provides that a “launching State”¹¹¹ is to maintain a registry of space objects and enter on it a space object that it has

102 Convention on International Liability for Damage Caused by Space Objects (adopted 29 November 1971, entered into force 1 September 1972) 961 UNTS 187. As at January 1, 2018, the Liability Convention has been ratified by 95 States, while 19 States have signed it and 3 international organizations have deposited a declaration of acceptance of its rights and obligations; COPUOS LSC (n 59).

103 von der Dunk and Tronchetti (n 97) 82.

104 A “launching State” is defined as “a State that launches or procures the launch of a space object; a State from whose territory or facility a space object is launched”; Liability Convention (n 102) art I(c).

105 A “space object” is defined as “[including] component parts of a space object as well as its launch vehicle and parts thereof”; *ibid.* art I(d). In this regard, it is acknowledged that this description is effectively a non-definition since it is (clearly) circular and difficult to interpret; Stephan Hobe, “International Space Law in Its First Half Century” (2006) 49 PIISL 373, 375; Henry R Hertzfeld, “A Roadmap for a Sustainable Space Law Regime” (2012) 55 PIISL 299, 303.

106 Liability Convention (n 102) art II.

107 “Damage” is defined as “loss of life, personal injury, or other impairment of health, or loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organisations”; *ibid.* art I(a).

108 *Ibid* art III.

109 Convention on Registration of Objects Launched into Outer Space (adopted 12 November 1974, entered into force 15 September 1976) 1023 UNTS 15. As at January 1, 2018, the Registration Convention has been ratified by 67 States, signed by 3 States, and 4 international organizations have deposited a declaration of acceptance of its rights and obligations; COPUOS LSC (n 59).

110 Fabio Tronchetti, *Fundamentals of Space Law and Policy* (Springer 2013) 12; Hobe (n 105) 375.

111 A “launching State” is defined as “a State that launches or procures the launch of a space object; a State from whose territory or facility a space object is launched”; Registration Convention (n 109) art I(a).

launched into earth orbit or beyond,¹¹² then it further creates a UN Registry that fundamentally serves the same purpose.¹¹³

Last, the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (the “Moon Agreement”) was adopted on December 5, 1979.¹¹⁴ The majority of this treaty, like the three previous ones, reiterates certain well-established principles such as that the moon shall be used exclusively for peaceful purposes,¹¹⁵ and that the exploration of the moon shall be the province of all mankind.¹¹⁶ Nevertheless, this treaty goes beyond the Magna Carta of space law by addressing not only the “use” and “exploration” of the moon, but also the “exploitation” of its natural resources. It is impossible to overlook the fact that, in doing so, the Moon Agreement is much less successful than its predecessors.¹¹⁷ This stems from its classification of the moon and the natural resources thereof as “the common heritage of mankind,”¹¹⁸ a concept derived from the law of the sea, even though the Moon Agreement specifies that this term should “find its expression in [its] provisions.”¹¹⁹ Suffice it to say that the concept of common heritage of mankind in the Moon Agreement has led to much debate and disagreement, especially in recent years with the prospect of commercially harvesting space resources having become more realistic.¹²⁰ Consequently, the limited role that the Moon Agreement has played thus far is not likely to change, despite its unanimous adoption by the General Assembly.

112 Registration Convention art II.

113 *Ibid* art III; Cheng, (n 56) 159.

114 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (adopted 5 December 1979, entered into force 11 July 1984) 1363 UNTS 3. As at January 1, 2018, the Moon Agreement has been ratified by 17 States and signed by 4 States; COPUOS LSC “Status of International Agreements relating to activities in outer space as at 1 January 2017” (n 59).

115 Moon Agreement art 3(1).

116 *Ibid.* art 4(1).

117 Stephan Hobe, “The Moon Agreement - Let’s Use the Chance!” (2010) 59 ZLW 372.

118 Moon Agreement (n 114) art 11(1).

119 *Ibid.*

120 Stephan Hobe, Peter Stubbe, and Fabio Tronchetti, “Historical Background and Context” in Stephan Hobe, Bernhard Schmidt-Tedd, and Kai-Uwe Schrogl (eds), *Cologne Commentary on Space Law: Volume 2* (Carl Heymanns Verlag 2013) 336. Note that art 11(7) (d) of the Moon Agreement requires an “equitable sharing” by all States parties in the benefits derived from the exploited natural resources of the moon. This constitutes the most controversial idea, if not also the greatest deterrent, of the said treaty; Ram Jakhu, Steven Freeland, Stephan Hobe and Fabio Tronchetti, “Article 11 (Common Heritage of Mankind/International Regime)” in Hobe et al., *supra*, at 398.

4 THE FUTURE OF HARD SPACE LAW

After the Moon Agreement of 1979, no new space treaties were adopted under the auspices of the UN, and thus the dynamic phase of treaty-making came to an end. The lack of new treaties could be attributed to a lack of political will among States, sometimes referred to as “treaty fatigue/congestion” also seen in other areas of international law.¹²¹

Instead, there was a return to declaring legal principles in the form of UN General Assembly resolutions, leading to several new “soft law” instruments. However, as one of the early Chairs of COPUOS recently put it:

‘[...] while the first of these resolutions, in particular resolution 1962 (XVIII) of 13 December 1963, had the objective to launch the process of international cooperation in space and thus create a basis for a space legislation process later, now the establishment of a number of sets of principles by UN General Assembly resolutions had to regulate more special and more technical categories of space activities. In this way the sets of principles elaborated and adopted by the General Assembly included principles governing television broadcasting (1982), remote sensing of the earth from space (1986), the use of nuclear power sources in outer space (1992) and a Declaration on international cooperation for the benefit and in the interest of all States, taking into particular account the needs of developing countries (1996).’¹²²

A third wave of General Assembly resolutions adopted in the early part of the twenty-first century have addressed certain concepts contained in the treaties, such as the concept of the launching State,¹²³ the practice of States in registering space objects,¹²⁴ and the adoption of national legislation to implement the obligation to authorize and supervise activities by nongovernmental entities.¹²⁵ Interestingly, however, each of these resolutions contains a preambular paragraph stating that nothing in the resolution

121 Edith Brown Weiss, “International Environmental Law: Contemporary Issues and the Emergence of a New World Order” (1993) 81 *Georgetown LJ* 675, 697. Note that the essence of treaty congestion lies in the appearance of too much law, too fast; Donald K Anton, “‘Treaty Congestion’ in Contemporary International Environmental Law” in Shawkat Alam, Jahid Hossain Bhuiyan, Tareq MR Chowdhury, and Erika J Techera (eds), *Routledge Handbook of International Environmental Law* (3rd ed., Routledge 2015) 652. Note further that, although EB Weiss originally coined the concept of “treaty congestion” in terms of international environmental law, this concept can be equally applied to public international law in general; Joost Pauwelyn, Ramses A Wessel, and Jan Wouters, “When Structures Become Shackles: Stagnation and Dynamics in International Lawmaking” (2014) 25 *Eur. J Intl Law* 733,739.

122 Peter Jankowitsch, “The Outer Space Treaty: Its First Fifty Years” (2017) 60 *PIISL* 3, 7–8. The four resolutions mentioned by Jankowitsch respectively are: UNGA Res 37/92 (10 December 1982); UNGA Res 41/65 (3 December 1986); UNGA Res 47/68 (14 December 1992); UNGA Res 51/122 (13 December 1996).

123 UNGA Res 59/115 (10 December 2004).

124 UNGA Res 62/101 (17 December 2007).

125 UNGA Res 68/74 (11 December 2013).

constitutes an authoritative interpretation of, or proposed amendment to, any of the UN treaties on outer space.

While it makes sense, of course, that a soft-law instrument such as a UN General Assembly resolution cannot be considered as treaty interpretation unless its specific intent and purpose was to serve as such, in the absence of jurisprudence by, for instance, the International Court of Justice, this is also somewhat regrettable. Nonetheless, the resolutions provide useful insight in the *opinio juris* of States, and could, if accompanied by State practice, be seen as evidence of customary law.¹²⁶

The question of how effective and influential the UN treaty regime has been over time is a valid one, as is the question whether that regime can address future challenges and accommodate all legal issues raised by recent developments, for the landscape is changing swiftly. An increasing number of private entities, including start-ups and universities, are entering the field of space activity, and more and more emerging space nations, in seeking to achieve their space ambitions, request membership of COPUOS to participate in its rule-making activities, consequently making its consensus process exponentially more complex.

Space technology progresses at rapid speed, and revolutionary, new space endeavours enter the scene, such as the deployment of large constellations of very small satellites, private human launches to the edge of space, and space resource mining on the moon or asteroids. The legal aspects of these new activities are not explicitly addressed in the treaties, and additional clarification and elaboration of the basic principles contained therein is needed.

Be that as it may, the UN space treaties remain fully applicable and valid even after 50 years: a small number of States ratify the space treaties each year, no State has ever withdrawn from them, there have been no violations of the main legal tenets of peaceful space cooperation, and amendments have never been proposed. Challenges posed by the new playing field can, to some extent, be addressed by means of national space legislation designed to keep private activities in line with the treaty provisions, as well as by bilateral or multilateral agreements. The risk, however, is that commercial interests, rather than global ones, may prevail.¹²⁷

126 *North Sea Continental Shelf (Germany v Denmark/Netherlands)* (Merits) [1969] ICJ Rep 3, 43–44; *Continental Shelf (Libyan Arab Jamahiriya v Malta)* (Merits) [1985] ICJ Rep 13, 29; *Case Concerning Military and Paramilitary Activities in and against Nicaragua (Nicaragua v USA)* (Merits) [1986] ICJ Rep 14, 97.

127 The recently adopted national legislations on commercial space mining in the United States and Luxembourg may serve as an example. Even though these laws were justified by the need to provide clarity and legal certainty to an emerging new industry, and both laws explicitly state the intent not to violate international space law, not all States approve this process. For an analysis, see for instance Tanja Masson-Zwaan and Neta Palkovitz, “Regulation of Space Resource Rights: Meeting the Needs of States and Private Parties” (2017) 35 *Questions Intl Law* 5.

Arguably, issues that affect humankind as a whole require global solutions to be agreed under the auspices of the UN. The long-term sustainability of space activities is a good example of an issue that affects all actors and that requires such a global solution, ideally in the form of a hard law instrument such as a treaty. Interestingly, however, this topic is not included on the agenda of the Legal Subcommittee of COPUOS but is dealt with in the Scientific and Technical Subcommittee.¹²⁸

Furthermore, the process is cumbersome and fraught with political interests, and full agreement has not yet been reached. These points can be seen as further illustrations of the reluctance of States to accept new legally binding rules, and of their preference for soft-law solutions, even if the latter are still to have a global scope and are still to be achieved within COPUOS and under the auspices of the UN.¹²⁹

5 CONCLUSION

To date, the UN has played a major role in elaborating an entirely new field of international law applicable to activities in the new dimension of outer space. These rules have stood the test of time and have ensured peaceful cooperation among States in outer space, despite a geopolitical setting characterized by extreme tension. Fifty years later, the scene has changed dramatically, both in terms of actors involved and emerging opportunities. In response, the UN must reassess its role in regulating this new phase of space activity.

The relevance of newly emerging topics is acknowledged by COPUOS, while they also gradually find their way onto the Legal Subcommittee. For instance, new items addressing space traffic management and small satellites,¹³⁰ and the governance of the use, exploration, and exploitation of

128 In 2010, the Working Group on the Long-term Sustainability of Outer Space Activities was established in the Scientific and Technical Subcommittee. Its objectives include identifying areas of concern, proposing measures to enhance sustainability, and producing voluntary guidelines to reduce risks to long-term sustainability. Thematic areas include, inter alia, space debris, space situational awareness, space weather and regulatory regimes, and guidance for actors. In June 2016 a first set of guidelines was agreed (COPUOS "Report of the Committee on the Peaceful Uses of Outer Space" (8 June 2016) A/71/20 Annex), and in 2018, consensus was reached on a preamble and nine additional guidelines; "Report of the Scientific and Technical Subcommittee on its Fifty-Fifth Session" (14 February 2018) A/AC.105/1167, Annex III; see also COPUOS "Report of the Committee on the Peaceful Uses of Outer Space" (20 June 2018) A/73/20. This notwithstanding, the Working Group was unable to refer the said preamble and guidelines to the General Assembly.

129 Jankowitsch (n 122) 10.

130 UNOOSA, "Space Traffic Management and Small Satellites: New Topics to Be Included in the United Nations International Space Law Discussions" (24 April 2015) UNIS/OS/449, <http://www.unoosa.org/oosa/en/informationfor/media/2015-unis-os-449.html>, accessed March 12, 2019.

space resources¹³¹ were included in the agenda of the Legal Subcommittee, respectively in 2015 and 2016. It is also encouraging that COPUOS cooperates efficiently with other UN bodies, thus recognizing the interdisciplinary nature of space activities. By way of example, a booklet on “Guidance on Space Object Registration and Frequency Management for Small and Very Small Satellites”¹³² was recently developed in cooperation with the International Telecommunication Union. Likewise, the Office of Outer Space Affairs (the secretariat of COPUOS) cooperates with the International Civil Aviation Organization with regard to the regulation of commercial space flight.¹³³

Several States have expressed the concern that the role of the UN as a forum for space law-making may be reduced in the future, given, for instance, the emergence of national legislation addressing topics of universal concern.¹³⁴ A fruitful opportunity with which COPUOS reaffirmed its unique role in international space law-making arrived in the form of the “UNISPACE+50” session,¹³⁵ held in June 2018. This event was constructed around seven “Thematic Priorities,” one of which was titled “Legal Regime of Outer Space and Global Space Governance: Current and Future Perspectives.” Another indication that States are determined to uphold the pivotal role of the UN in the field of space law-making is the resolution adopted by the General Assembly, in the form of a “Declaration,” on the fiftieth anniversary of the OST.¹³⁶ With this Declaration, the Member States of the UN “reaffirm the fundamental role played by the treaty” and are “convinced that it will continue to provide an indispensable framework for the conduct of outer space activities.”¹³⁷

131 UNIS, “Utilization of Space Resources to Be Included In United Nations International Space Law Discussions” (19 April 2016) UNIS/OS/464, <http://www.unis.unvienna.org/unis/en/pressrels/2016/unisos464.html>, accessed March 12, 2019..

132 UNOOSA & ITU, “Guidance on Space Object Registration and Frequency Management for Small and Very Small Satellites” (1 April 2015), http://www.unoosa.org/documents/pdf/psa/bsti/2015_Handout-on-Small-SatellitesE.pdf, accessed March 12, 2019.

133 ICAO, “Space Transportation”, <https://www4.icao.int/space>, accessed March 12, 2019.

134 See, e.g., “Report of the Legal Subcommittee on its Fifty-Sixth Session” (18 April 2017) A/AC.105/1122 9, paras 44 and 45.

135 See UNOOSA, “Fifty Years since the First United Nations Conference on the Exploration and Peaceful Uses of Outer Space (1968–2018): UNISPACE+50”, <http://www.unoosa.org/oosa/en/ourwork/unispaceplus50/index.html>, accessed March 12, 2019.

136 UNGA Res 72/78 (14 December 2017). Although the adoption of this resolution is positive, it was “hidden” in a package of 38 resolutions and 2 decisions, meaning that the UN General Assembly missed out on a rare opportunity to bring to the forefront the importance of the OST and space law as a whole; UN, “General Assembly Adopts 38 Resolutions, 2 Decisions from Fourth Committee, Including Texts on Decolonization, Israeli- Palestinian Issues” (UN, 7 December 2017), <https://www.un.org/press/en/2017/ga11987.doc.htm>, accessed March 12, 2019.

137 UNGA Res 72/78 (14 December 2017) (n 136) paras 4–5.

The UN will certainly continue to play a major role in the formulation of new international space law, although it might be in the form of soft law. Much will depend on the political will of States to reach consensus. The tendency toward increased adherence to the five UN space treaties, and the efforts of States to reach international agreement, even if non-legally binding, on new issues of universal interest are encouraging in this respect.