Current Developments in Space Law and Policy

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1. Introduction

The 1996 Space Benefits Declaration was a watershed in the development of peaceful uses of outer space in the United Nations. Prior to that time, the development of such peaceful uses, particularly multilaterally, was hampered by divisions between developing nations (Group of 77 nations, "South") and developed nations ("Western European and Others Group [WEOG]," "North"). The gradual drafting and negotiating of the 1996 Space Benefits Declaration in the United Nations Committee on Peaceful Uses of Outer Space and its adoption by the United Nations General Assembly (UNGA) – and other factors -- led to a change in the international legal perspective on international space cooperation.

The Space Benefits Declaration enhanced the ability of the 1999 United Nations UNISPACE III Conference to focus on the substance of how to share those benefits for all humanity, rather than on political issues dividing developed and developing countries. The benefits of the 1996 Space Benefits Declaration impact the lives of people throughout the world through the many regional and multilateral civil and commercial cooperation programs and projects in outer space.

2. 1996 Space Benefits Declaration

Work on what became the 1996 United Nations 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 (hereinafter "Space Benefits Declaration") began in the Committee on Peaceful Uses of Outer Space (COPUOS) Legal Subcommittee

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(LSC) with a Group of 77 (G-77) working paper submitted to the 1987 LSC.[1] It is important to note at the beginning of this discussion that there is no established convention for the designation of "developed" and "developing" countries or areas in the United Nations system.[2] However, members of the G-77 self-designated themselves as "developing countries" and have grown from the original 77 countries to 134 today.[3] Even in 1987, there were oddities in the G-77 as "developing nations." For example, Brazil, China, India, and some other developing countries themselves were emerging as spacefaring nations.

After extensive debate in the LSC in 1987 and 1988 and a compromise formulation presented by Austria[4] at the 1988 LSC, a new agenda item was adopted by consensus at the 1988 LSC titled "Consideration of the legal aspects related to the application of the principle that the exploration and utilization of outer space should be carried out for the benefit and in the interests of all States, taking into particular account the needs of the developing countries."[5]

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1 UN Doc. A/AC.105/C.2/L.162, COPUOS Legal Subcommittee, April 1, 1987.

2 *See* Composition of macro geographical (continental) regions, geographical sub-regions, and selected economic and other groupings, which states that "in common practice," Japan in Asia, Canada and the United States in northern America, Australia and New Zealand in Oceania, and Europe are considered "developed" regions or areas. In international trade statistics, the Southern African Customs Union is also treated as a developed region and Israel as a developed country. Countries emerging from the former Yugoslavia are treated as developing countries. Countries of Eastern Europe and the former states of the Union of Soviet Socialist Republics are not included under either developed or "developing regions," *available at* https://unstats.un.org/unsd/methodology/m49/ (accessed September 5, 2017). The authors gratefully acknowledge that the information in this footnote is drawn from the *Chapter on the 1996 Space Benefits Declaration*, written by Stephan Hobe, V.S. Mani, Haifeng Zhao and Fabio Tronchetti, included in the **Cologne Commentary on Space Law volume III**, edited by Professor Dr. Stephan Hobe, Dr. Bernhard Schmidt-Tedd & Professor Dr. Kai – Uwe Schrogl (2015) at page 306, footnote 1. (hereinafter "Hobe, Mani, Zhao & Tronchetti").

3 www.g77.org/doc/.

4 UN Doc. A/AC.105/C.2/SR.496, LSC Summary Record of the March 24 1988 Meeting, p. 2, para. 2.

5 UN Doc. A/7285, General Assembly Official Records, Report of the Committee on the Peaceful Uses of Outer Space.

During the early LSC discussions under this agenda item,[6] there were vastly different views on issues such as whether developed nations should be required to cooperate with developing nations and the automatic transfer of financial and technological resources from developed to developing countries. Virtually all Member States, however, did agree that the best way of realizing the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (hereinafter "1967 OST")[7] Article 1 para. 1 principle that "[t]he exploration and use of outer space, …. shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind" would be to expand and further develop the scope of international cooperation in space activities.[8]

Also during the early LSC discussions under the agenda item, some developing countries clung to the idea of the New International Economic Order, enunciated in a 1974 UNGA Resolution "Declaration on the Establishment of a New International Economic Order."[9] The Resolution was based on the ideas of equity, sovereign equality, interdependence, common interest, and cooperation among all States, irrespective of their economic and social systems, which shall correct inequalities and redress existing injustices, make it possible to eliminate the widening gap between the developed and the developing countries, and ensure steadily accelerating economic and social development and peace and justice for present and future generations.[10]

The recently enunciated "New International Economic Order" (NIEO) exacerbated tension between the developed and developing nations, as the

6 An in-depth discussion of the development of the 1996 Space Benefits Declaration is outside the scope of this paper. The development is given excellent treatment in a number of articles, including: Jasentuliyana, "*Ensuring equal access to the benefits of space technologies for all countries*," 10 **Space Policy** 1 (February 1995) (hereinafter "Jasentuliyana"); Benkö, Marietta and Kai-Uwe Schrogl, "*Viewpoint: "Space Benefits' – towards a useful framework for international cooperation,*" 11 **Space Policy** 1 (February 1995) (hereinafter "Benkö & Schrogl 1"); Benkö, Marietta and Kai-Uwe Schrogl, "*History and impact of the 1996 UN Declaration on 'Space Benefits,*'" 19 **Space Policy** 2 (May 1997) (hereinafter "Benkö & Schrogl 2"); and Carpanelli, Elena & Brendan Cohen, "*A Legal Assessment of the 1996 Declaration on Space Benefits on the Occasion of its Fifteenth Anniversary,*" 38 **Journal of Space Law** 1 (Spring/Summer 2012); and in Hobe, Mani, Zhao & Tronchetti.

7 General Assembly Resolution A/RES/21/2222 (XXI) of December 19, 1966, *available at* www.un-documents.net/a21r2222.htm (accessed September 6, 2017), adopted the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

8 Jasentuliyana.

9 General Assembly Resolution A/RES/S-6/3201 of May 1, 1974, Preamble.

10 General Assembly Resolution A/RES/S-6/3201 of May 1, 1974.

latter, with their increased participation in the United Nations, sought to gain economic power and influence, while the former sought to retain control and consolidate power. This tension is clearly illustrated in the negotiations that resulted in the conclusion and signature of the 1982 Law of the Sea Convention. One well-respected academic Louis Henkin[11] describes the 1982 Convention as a series of compromises that sought to reconcile the diverging interests of the developed and developing States.[12] In many ways, the 1982 Convention was the most important achievement of the NIEO.

Many industrial states, however, did not join the 1982 Convention. For a variety of reasons, this led, in 1990, to negotiations of a possible implementing agreement to the 1982 Convention which would modify some of the most contentious provisions in Part XI (regarding deep seabed mining). The successful conclusion of these negotiations in 1994 led to most nations (including developed seafaring nations) – though not the United States – becoming parties to the 1982 Convention and the 1994 Agreement.

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11 Louis Henkin, International Law: Politics and Values 83-90 (Den Haag ed, Kluwer Law International, Kluwer Student Edition 1995).

12 For example, regarding the boundaries of "commonage," the developed states did not want to adjust the existing boundaries, while the developing states sought to extend boundaries to increase the economic power of developing maritime states. In the end, the developing coastal states won an extended 200 miles of "exclusive economic zones." The developed states maintained that these zones were still subject to the freedom of the high seas, but agreed that they established "sovereign rights" to natural resources in the sea-bed and "superadjacent waters" and other economic and exploitation activities. However, and perhaps more importantly, the US and other developed seafaring nations objected to Part XI of the 1982 Convention which created the International Seabed Authority to authorize seabed exploration and mining and to collect and distribute the seabed mining royalty required for any profits made by mining outside any state's territorial waters or exclusive economic zones. Due to Part XI, the United States and other developed seafaring states refused to ratify the 1982 Convention. The United States has expressed agreement with the remaining provisions of the 1982 Convention as customary international law. A lack of technology that would have enabled mining of the deep sea bed and a decline in the demand for minerals from the seabed made the seabed regime less relevant. In addition, the decline of socialism and the fall of the Soviet Union and the Eastern bloc in the late 1980s and early 1990s removed much of the support for the more contentious Part XI provisions. In 1990, consultations began between signatories and non-signatories of the 1982 Convention (including the United States) over the possibility of modifying the 1982 Convention to allow the industrialized states to join the 1982 Convention. The resulting 1994 Agreement on Implementation was adopted as a binding international Convention. It mandated that key Articles, including those on limitation of seabed production and mandatory technology transfer, would not be applied, that the United States, if it became a member, would be guaranteed a seat of the Council of the International Seabed Authority and that voting would be done in groups, with each group able to block decisions on substantive matters.

As the discussion of the 1982 Convention and its 1994 Amendment illustrates, while the LSC was working on the Space Benefits Declaration, a new pattern of consensus and cooperation began emerging in COPOUS and other UN bodies. This change was in part because of the decline of Cold War tensions, with the fall of the Berlin Wall and subsequent emergence of East Europe from the Soviet bloc and the later break-up of the Soviet Union into 15 States.[13]

Brazil, at that time a developing country interested in developing space launch and other space technologies, served as a bridge in bringing developing and developed countries together in adopting a compromise Space Benefits Declaration.[14] Brazil argued that a Resolution that attempted to impose legal links and obligations for cooperation in space activities would weaken States' abilities to exercise sovereignty in deciding when and what bilateral and multilateral cooperation to enter into. Brazil stated that the main objectives of the G-77's 1993 second revision to its original Working Paper were the promotion of transparency, predictability, equity, effectiveness, and mutual benefits in international cooperation in outer space.[15]

Germany and France presented a working paper to the 1995 LSC. The paper rested on two basic considerations: first, that States are free to determine all aspects of their international cooperation, whether bilateral or multilateral, governmental or commercial, and second, that States should choose the most effective and appropriate mode of cooperation in order to allocate resources efficiently.[16]

With the German, French, and Brazilian delegations facilitating discussions and compromises on both sides, agreement was reached on most of the text at the 1996 LSC meeting and all outstanding issues were resolved at the 1996 COPOUS meeting, leading to adoption of the Space Benefits Declaration by the General Assembly that December.

Turning to the Space Benefits Declaration itself, it is not binding under international law.[17] Rather, it is the result of UNGA, a political body, exercising a political function. In these authors' view, it serves as a political commitment by States that are Members of the UN and, as discussed below, its principles have been carried out well for the past 21 years and will be in the future.

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13 Jasentuliyana at 10.
14 Jasentuliyana at 12.
15 Jasentuliyana at 13.
16 Benkö & Schrogl 2 at 141.
17 This article will not discuss the different arguments surrounding whether the Declaration has any legal effect. *See*, for example, Carpanelli and Cohen and Irmgard Marboe, ed., Soft Law in Outer Space (Bohlau Verlag Ges.m.b.H. and Co.KG, Wein 2012).

Key elements of the Space Benefits Declaration include: The *Preamble* references the UN Charter, the 1967 OST, and the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE II), and Annex para. 1 references international law in general.
Annex para. 1 draws directly from the 1967 OST Article 1 para. 1 and adds language stating that "[p]articular account should be taken of the needs of developing countries," a phrase echoed in Annex paras 3 and 5.
Annex para. 2 states:

> "States are free to determine all aspects of their participation in international space cooperation … on an equitable and mutually acceptable basis. Contractual terms in such cooperative ventures should be fair and reasonable and they should be in full compliance with the legitimate rights and interests of the parties concerned as, for example, with intellectual property rights."

These authors believe this para. contains the core of the Space Benefits Declaration. It rejects any claims of forced international cooperation, as asserted in the G-77's early Working Papers in the LSC.
The first sentence[18] provides that cooperation will be on an "equitable and mutually acceptable" basis. Oxford's Living Dictionary[19] defines "equitable" as (1) (adjective) "fair and impartial" (for example, *'the equitable distribution of resources'*) and (2) (adjective) (law) "valid in equity as distinct from law" (*'the difference between legal and equitable rights'*). The term "equitable" is distinct from "equal," which Merriam-Webster Dictionary[20] defines as (*a) (1)* of the same measure, quantity, amount, or number as another *(2)*: identical in mathematical value or logical denotation; *(b)* like in quality, nature, or status; *(c)* like for each member of a group, class, or society. "Mutually acceptable" means that both sides agree, without coercion by either side.
The second sentence[21] discusses details of participation in international cooperation. It refers to "contractual" terms. In these authors' view, such terms may be embodied in an international agreement, state-to-state, or agency-to-agency agreements under the laws of one party or another state, or contracts between private parties or private parties and state actors under an appropriate law. The sentence further states that such terms should be "fair and reasonable." The Cambridge Dictionary[22] defines the adjective "fair" as

18 *See* Hobe, Mani, Zhao & Tronchetti at page 335 for further discussion of this sentence.
19 https://en.oxforddictionaries.com/definition/equitable (accessed September 2, 2017).
20 https://www.merriam-webster.com/dictionary/equal (accessed September 2, 2017).
21 *See* Hobe, Mani, Zhao & Tronchetti at pages 335-336 for further discussion of this sentence.
22 http://dictionary.cambridge.org/dictionary/english/fair (accessed September 2, 2017).

"treating someone in a way that is right or reasonable, or treating a group of people equally and not allowing personal opinions to influence your judgment." The Cambridge Dictionary[23] defines the adjective "reasonable" as "based on or using good judgment, and therefore fair and practical." Fair and reasonable contractual terms, thus, are a practical and meaningful contribution to the lexicon of international cooperation through different types of agreements and in various fora.

Finally, these authors believe that the reference in the second sentence to intellectual property rights as one of the legitimate rights and interests of the parties concerned is of increasing importance today to both government and private sector actors because of the expanding uses of new technologies and data/information garnered from outer space.

Annex para. 4 states:

> "International cooperation should be conducted in the modes that are considered most effective and appropriate by the countries concerned, including, inter alia, governmental and non-governmental; commercial and non-commercial; global, multilateral, regional, or bilateral; and international cooperation among countries in all levels of development."

"Effective and appropriate" can mean many different things to the array of stakeholders in international space cooperation. These authors believe that one appropriate point of reference is the Germany and France working paper presented to the 1995 LSC.[24] Two of the principle authors of that working paper were of the opinion that these terms were aimed at an efficient allocation of resources. These authors believe this approach is logical.

This paragraph also adds to the multilateral concept of international cooperation in that it is the first UNGA recognition of the potential role of private sector ("commercial") actors in cooperation in outer space.

These authors believe that cooperation involving private sector actors described in Annex para. 4 must be consistent with the international obligation of States Parties to the 1967 OST Article VI to "bear international responsibility for national activities in outer space…whether such activities are carried on by governmental agencies or by non-governmental entities..."[25]

Annex para. 5 states in part:

> "International cooperation, while taking into particular account the needs of developing countries, should aim, inter alia, at the following goals…

23 http://dictionary.cambridge.org/dictionary/english/fair (accessed September 2, 2017).
24 Benkö & Schrogl 1 at 7.
25 1967 OST, Article VI. *See also* 1967 OST Articles VII and VIII.

> Fostering the development of relevant and appropriate space capabilities in interested States;
> Facilitating the exchange of expertise and technology among States on a mutually acceptable basis."

This paragraph can be read as simply enumerating the fields of international cooperation and making clear what efficiency means.[26] These authors, however, believe that its importance is greater. It represented a significant compromise by developing countries who had asserted in the early years of LSC discussion of the Space Benefits AI that automated transfer of technology and resources was a requirement of a Space Benefits Declaration.[27] And this compromise provided a way forward for enhanced international cooperation.

The positive effects of the Space Benefits Declaration began with its impact on UNISPACE III (discussed below in section 4) and have continued to the present with many more types and number of bilateral, regional, and multilateral agreements today.

3. Space BeneFits Declaration & 2002 Hague Code of Conduct against Ballistic Missile Proliferation

The Hague Code of Conduct against Ballistic Missile Proliferation (HCOC)[28] is the result of efforts of the international community to curb ballistic missile proliferation worldwide and to further delegitimize such proliferation. The HCOC is the only multilateral transparency and confidence building instrument solely concerning the spread of ballistic missiles.[29] Like the 1996 Space Declaration, the HCOC is a politically-binding commitment.

Signatories to the HCOC confirmed their "commitment to the United Nations 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, adopted by the United Nations General Assembly (Resolution 51/122 of 13 December

26 Benkö & Schrogl 2 at 142.

27 Benkö & Schrogl 1 at 6.

28 The link between the United Nations and the HCOC is established by a series of UNGA Resolutions. On December 3, 2004, the UN General Assembly adopted Resolution 59/91, which welcomed the adoption of the HCOC and called on States that are able to adhere to it to do so. The importance of the Code was reaffirmed in resolutions A/RES/60/62 in 2005, A/RES/63/64 in 2008, A/RES/65/73 in 2010, A/RES/67/42 in 2012 and A/RES/69/44 in 2014. The latest UN General Assembly resolution in support of the HCOC, A/RES/71/33, was adopted in December 2016 by a vote of 166 UN member states in favor.

29 www.hcoc.at/. (accessed September 4, 2017).

1996)."[30] The Signatories also recognized that "states should not be excluded from the benefits of space for peaceful purposes, but that, in reaping such benefits and in conducting related cooperation, they must not contribute to the proliferation of Ballistic Missiles capable of delivering weapons of mass destruction."

Since the signature and entry into effect of the HCOC in November 2002, the number of signatories has increased from 93 to 138. The importance and symbolism of this first transparency and confidence building measure is illustrated by the number of participants, particularly since there are far fewer States with ballistic missile capabilities.

3.1 UNCOPUOS Long-Term Sustainability of Outer Space Activities (LTS)

Space sustainability has been defined by the South African Chair of the COPUOS Scientific and Technical Subcommittee (STSC) LTS Working Group Peter Martinez as "the set of concerns arising out of the realization that near-Earth space and the electromagnetic spectrum are limited natural resources that are under increasing pressure from the steady growth in the number and diversity of space actors."[31]

During 2006 to 2007, the Committee was chaired by Gérard Brachet, the former head of the French space agency. At the fiftieth session of the Committee in June 2007, Mr. Brachet presented a Working Paper that identified the long-term sustainability of outer space activities as one of the key challenges facing the future peaceful uses of outer space. The Working Paper further suggested that a working group could be established within the STSC to produce a technical assessment of the situation and to suggest a way forward.

In response to this, in 2010, COPUOS established the Working Group (WG) on LTS, which was tasked with producing a consensus report with voluntary, best-practice guidelines to promote safe and sustainable space activities, a topic of continual and growing importance at both the national and international level.

In these authors' view, the LTS guidelines are important to the broader space community. These consensus-based discussions include established and emerging space actors, private corporations, and non-governmental organizations (NGOs), and represent a wide variety of all those who utilize space or are affected by space activities. The topics and issues addressed are quite comprehensive and COPUOS is one of the few international fora that has this wide breadth of discussions and viewpoints represented. The decisions made in COPUOS will affect all space actors. Due to the unique physics of space, the activities of one space actor can have effects on many

30 https://www.nonproliferation.eu/hcoc/wp-hcoc/uploads/2015/07/Hague-Code-of-Conduct-A-57-724-English.pdf. (accessed September 6, 2017).

31 www.thespacereview.com/article/3291/1. (accessed September 4, 2017).

others, so it is crucial to understand best practices that are agreed upon by the international community.[32] Because COPUOS works by consensus, any decisions made on these guidelines and their content are indicative of international thinking and views on the issues.[33]

The process of developing the LTS Guidelines began with the creation of four Expert Groups in 2011 that developed initial concepts, which then were sent to the LTS Working Group for deliberation among States. According to the LTS WG Terms of Reference, their work took into consideration *current practices, operating procedures, technical standards, and policies associated with the long-term sustainability of outer space activities*, including, *inter alia*, the safe conduct of space activities throughout all the phases of the mission life cycle.[34]

On June 17, 2016, COPOUS agreed to 12 LTS guidelines[35] representing "best practices" for the safe and responsible use of space. These 12 voluntary guidelines mark a successful milestone out of years of discussions within COPUOS and highlight the Committee's role in fostering constructive international cooperation.[36] The 2018 STSC agreed by consensus on the Preamble to the voluntary guidelines and 10 additional LTS guidelines.[37]

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32 www.thespacereview.com/article/3291/1. (accessed September 4, 2017).

33 www.thespacereview.com/article/3291/1. (accessed September 4, 2017).

34 Committee on the Peaceful Uses of Outer Space, Report of the Committee on the Peaceful Uses of Outer Space Fifty-fourth session, pp. 51-57, Annex II. Terms of reference and methods of work of the Working Group on Long-Term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee, U.N. Doc. A/66/20 (2011) *available at* www.unoosa.org/pdf/gadocs/A_66_20E.pdf. (accessed September 5, 2017).

35 Committee on the Peaceful Uses of Outer Space (June 2016) A/AC.105/2016/CRP.17. The 12 guidelines are: - Guideline 1: Adopt, revise and amend, as necessary, national regulatory frameworks for outer space activities. - Guideline 2: Consider a number of elements when developing, revising or amending, as necessary, national regulatory frameworks for outer space activities. - Guideline 3: Supervise national space activities. - Guideline 4: Ensure the equitable, rational and efficient use of the radio frequency spectrum and the various orbital regions used by satellites. - Guideline 12: Improve accuracy of orbital data on space objects and enhance the practice and utility of sharing orbital information on space objects. - Guideline 13: Promote the collection, sharing and dissemination of space debris monitoring Information. - Guideline 16: Share operational space weather data and forecasts. - Guideline 17: Develop space weather models and tools and collect established practices on the mitigation of space weather effects. - Guideline 25: Promote and support capacity-building. - Guideline 26: Raise awareness of space activities. - Guideline 27: Promote and support research on and the development of ways to support sustainable exploration and use of outer space. And, - Guideline 28: Investigate and consider new measures to manage the space debris population in the long term.

36 www.thespacereview.com/article/3291/1.

37 The additional 10 guidelines are: - Guideline 6: Enhance the practice of registering space objects. - Guideline 11: Provide updated contact information and share

Many State Members of COPUOS want to achieve consensus on additional guidelines and have COPUOS adopt the 10 guidelines agreed to at the STSC and any additional guidelines which are agreed before the current mandate of the LTS WG expires at the conclusion of the 61st session of COPUOS in June 2018.

States need to continue to consider and to take action to implement the draft LTS guidelines. This is an important step to ensure the benefits of the LTS Guidelines are maximized. The US Delegation to the 2018 STSC stated in its LTS statement that "[t]he United States hopes that States can begin voluntarily implementing these guidelines to the greatest extent practicable, consistent with their respective needs, conditions, and capabilities."

The COPUOS LTS guidelines are consistent with and implement some of the outcomes of UNISPACE III (discussed in Section 4 below).

4. United Nations UNISPACE III Conference and Progress Made in International Cooperation in the Civil Exploration and Use of Outer Space Since Adoption of the 1996 Space Benefits Declaration

Rapid progress in space exploration and technology led to the July 1999 UNISPACE III Conference of the United Nations.[38] The focus of this

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information on space objects and orbital events. - Guideline 14: Perform conjunction assessment during all orbital phases of controlled flight. - Guideline 15: Develop practical approaches for pre-launch conjunction assessment. - Guideline 23: Promote and facilitate international cooperation in support of the long-term sustainability of outer space activities. - Guideline 24: Share experience related to the long-term sustainability of outer space activities and develop new procedures, as appropriate, for information exchange. - Guideline 30: Design and operation of space objects regardless of their physical and operational characteristics; - Guideline 31: Take measures to address risks associated with the uncontrolled re-entry of space objects. - Guideline 32: Observe measures of precaution when using sources of laser beams passing through outer space.

38 The United Nations held the UNISPACE I Conference (the United Nations Conference on the Exploration and Peaceful Uses of Outer Space) in August 1968, one year after the 1967 OST had entered into force. It was the first global UN conference on outer space and focused on raising awareness of the vast potential of space benefits for all humankind. It also had the goal of elevating the importance of space within the UN system. 78 UN Member States, nine specialized UN agencies, and four other international organizations attended. The Conference reviewed progress in space science, technology and applications and called for increased international cooperation, with particular regard to the benefit of developing nations. was the first in a series of three global UN conferences on outer space with and raising awareness of the benefits of space for all humankind. The United Nations held UNISPACE II (or UNISPACE 82) in August 1982. 94 UN Member States and 45 intergovernmental and non-governmental organizations attended. UNISPACE II addressed concerns about how to maintain outer space for peaceful purposes and prevent an arms race in outer space. UNISPACE II focused on strengthening the

Conference was "Space Benefits for Humanity in the Twenty-first Century." 97 UN Member States, nine UN specialized agencies, and 15 international intergovernmental organizations attended. The 1996 Space Benefits Declaration was key to the successes of UNISPACE III.[39]

UNISPACE I and UNISPACE II were marked by political conflicts over the distribution of resources that largely prevented substantive discussions of the benefits of space.[40] This issue was partially defused during the debates leading to the Space Benefits Declaration and by the Declaration itself. These authors thus believe that the Space Benefits Declaration enhanced the ability of UNISPACE III to focus on the substance of how to share those benefits for all humanity.

UNISPACE III created a blueprint for the peaceful uses of outer space in the 21st century. It outlined a wide variety of actions to:

- Protect the global environment and manage natural resources;
- Increase the use of space applications for human security, development and welfare;
- Protect the space environment; and
- Increase developing countries' access to space science and its benefits.[41]

It concluded with the "Space Millennium: Vienna Declaration on Space and Human Development" (Vienna Declaration), which reaffirmed the 1996 Space Benefits Declaration and recognized that the orderly conduct of space activities is beneficial to all countries, whether or not they have already become active in space research or have started to utilize space applications.[42] The Vienna Declaration contained 33 specific recommendations as elements of a strategy to address new challenges in outer space activities.[43] These recommendations continue to be carried out today in various fora, including COPUOS, its Secretariat OOSA and its subsidiary bodies the STSC and the LSC, other UN bodies, and various forms of multilateral, regional, and bilateral cooperation.

United Nations' commitment to promoting international cooperation to enable developing countries to benefit from the peaceful uses of space technology.

39 Carpanelli and Cohen at 32.

40 Carpanelli and Cohen at 32, footnote 131.

41 A/CONF.184/6, UNISPACE III Report, Vienna, July 1999.

42 A/CONF.184/6, UNISPACE III Report, Vienna, July 1999.

43 A/CONF.184/6, UNISPACE III Report, Vienna, July 1999.

5. The 1996 Space Benefits Declaration Is a Tool to Help Implement Achievements

UNISPACE+50 is the 50th Anniversary of UNISPACE I and will be held on June 20 and June 21, 2018, in Vienna, Austria. UNISPACE+50 will take stock of the contributions of the prior UNISPACE conferences[44] and consider the current status and begin to chart the future role of the UN Committee on the Peaceful Uses of Outer Space (COPUOS). All 193 UN Member States (more than twice the Member States of COPUOS) are invited to UNISPACE+50. The United States Government, including NASA, have played an active role in developing UNISPACE+50 and expect the outcomes to be consistent with US interests. The UN is expecting more than 700 government officials (including Heads of State, Heads of space agencies, and other senior government officials) from more than 100 countries to attend UNISPACE+50.

After much work by COPUOS Member States, including the United States, Member States are now in a position to chart the course for COPUOS until 2030. The draft UNISPACE+50 UN General Assembly Resolution "*Invites* the Committee on the Peaceful Uses of Outer Space to continue to develop, based on the results of the UNISPACE+50 [consultative] process, a "Space2030" agenda and implementation plan and provide the General Assembly with the outcome of its work for consideration at the seventy-fifth session of the General Assembly [in 2020]."

The UNISPACE+50 Conference hopes to build on the success of UNISPACE III in expanding international cooperation surrounding the peaceful uses of outer space while avoiding the political pitfalls that plagued UNISPACE I and UNISPACE II. The 1996 Space Benefits Declaration will be an important tool in achieving this result.

For example, the draft Resolution on Space as a Driver of Sustainable Development for the 2018 UN General Assembly as developed by the end of the 2018 STSC[45] includes, *inter alia*, language recognizing the need to address the emergence of commercial activities in outer space and to consider how commercial actors might support the achievement of Sustainable Development goals. The 1996 Space Benefits Declaration provides principles regarding and specific mechanisms for the participation of private sector entities in the peaceful uses of outer space.

The draft Resolution also "[e]ncourages all States to continue to contribute actively to and promote and strengthen international cooperation in peaceful use of outer space, for the objective of shaping a shared future for

44 *See* section 4 and footnote 38 above.

45 STSC 2018 A/AC.105/C.1/2017/CRP.16/Rev.1 (hereinafter "2018 STSC Conference Room Paper"). This is not the December 13, 2017 Note by the [OOSA] Secretariat ("The 'Space 2030' Agenda and the Global Governance of Outer Space Activities"), UNGA A/AC.105/1166.

humankind, taking into account the particular needs of developing countries. Again, the 1996 Space Benefits Declaration provides practical ways forward for States to do so.

6. Conclusions

The 1996 Space Benefits Declaration is not perfect. It has not solved all of the legal issues that will arise in this era of scientific, technological, and financially innovative space.

However, it is and will continue to be a framework for international cooperation in the exploration and use of outer space for the benefit of all humankind, taking into particular account the needs of developing countries. This is illustrated powerfully in the discussion of examples of bilateral, regional, and multilateral civil and commercial cooperation in outer space provided in the comprehensive Final Report of the COPUOS LSC Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space,[46] completed at the March-April 2017 LSC meeting and approved by the June 2017 COPUOS.

46 A/AC.105/C.2/2017/CRP.27. www.unoosa.org/oosa/en/ourwork/copuos/2017/index.html. (accessed September 4, 2017).